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THIRTY-FIRST

ANNUAL REPORT

OF THE

FISHERY BOARD FOR SCOTLAND,

Being for the Year 1912.

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Presented to Parliament by Command of His Majesty.

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# THIRTY-FIRST ANNUAL REPORT.

TO THE RIGHT HONOURABLE  
T. M'KINNON WOOD, M.P.,  
*His Majesty's Secretary for Scotland.*

FISHERY BOARD FOR SCOTLAND,  
EDINBURGH, 12th April 1913.

SIR,—

In terms of the Act 45 & 46 Vict., c. 78, we, the Fishery Board for Scotland, have the honour to present this our Thirty-first Annual Report, being for the year ended 31st December 1912 :—

## PART I.—GENERAL STATEMENT.

It affords us pleasure to report a year of great success in the sea fishing industry of Scotland.

The number of vessels engaged in that industry during 1912 was 9290, manned by crews amounting in the aggregate to 38,434 persons.

The fish landed as the result of their operations amounted to 8,587,106 cwts. (exclusive of shell-fish), of the value of £3,588,584. The value of the shell-fish landed was £67,594, bringing the total value of fish of all kinds up to £3,656,178, or an increase of 75,132 cwts. in quantity and of £528,249 in value over the preceding year. This exceeds the previous highest record in value by over half-a-million pounds (£507,051).

The greater part of this increase was attributable to the herring fishery (164,816 cwts. and £405,199), though there was a substantial increase in the value of the white fishery as well.

For purposes of comparison, and to show the steady progress of the Scottish fisheries, we give below in summary form the means of capture and the results since 1898.

### SUMMARY OF MEANS OF CAPTURE AND RESULT.

Year.	Number of Vessels.	Tonnage.	Value of Boats and Gear.	Total Catch.	
				Quantity.*	Value.
			£	Cwts.	£
1898	11,576	113,557	2,029,384	6,558,768	1,879,866
1899	11,245	114,448	2,383,776	5,145,076	2,189,933
1900	11,275	119,426	2,711,877	5,369,265	2,325,994
1901	11,201	124,639	3,001,301	6,385,170	2,238,310
1902	11,097	131,692	3,212,455	6,866,028	2,502,668
1903	11,008	140,531	3,448,168	6,518,808	2,401,287
1904	10,891	140,396	3,431,284	7,947,829	2,231,102
1905	10,581	136,385	3,304,695	7,856,310	2,649,148
1906	10,554	142,081	4,117,549	7,593,369	2,977,583
1907	10,365	144,385	4,857,816	9,018,153	3,149,127
1908	10,078	142,505	5,223,149	8,645,252	2,512,162
1909	9,889	139,973	5,291,533	7,423,185	2,889,107
1910	9,724	139,701	5,439,857	8,709,655	3,100,387
1911	9,543	137,930	5,628,087	8,511,974	3,127,929
1912	9,290	136,590	5,777,102	8,587,106	3,656,178

\*Excluding shell-fish, which are sold partly by number (e.g., oysters) and partly by weight (e.g., mussels), and have no common measure except value.

The decrease in the total number of vessels shows the rapidity with which the sailing boats are being transformed into, or superseded by, vessels propelled by steam or by motor power, and manned by larger crews.

The number of steam vessels engaged in the fisheries of Scotland during 1912 was 1554, against 1486 in 1911, and of motor-driven vessels 356, against 233, or an increase during the year of 68 steam vessels and 123 motor vessels. This is by far the greatest increase of motor boats we have yet had to chronicle in one year, and the process of change shows no sign of slackening. Indeed, the indications seem rather to point to increased activity in the future, both in steam and motor.

### DIFFERENT FISHERIES.

#### 1. HERRING FISHERY—GENERAL.

The herring catch of 1912 amounted to 5,201,300 cwts. in quantity and £1,910,533 in value, as compared with 5,036,484 cwts. and £1,505,334 in 1911. This shows an increase of 164,816 cwts. and £405,199 over the previous year, and in point of value constitutes the high-water mark of the herring fishery of Scotland. The price per cwt. paid to the fishermen also sets up a new record.

Several causes combined to maintain the price of Scottish cured herrings on the Continent—their principal market—and this in turn served to ensure a proportionately high price for the raw material.

The following table gives the total results of the Scottish herring fishery since 1898:—

Year.	Quantity.	Value.	Average Price per Cwt.
	Cwts.	£	
1898	4,703,641	952,402	4/0 $\frac{1}{2}$
1899	3,207,078	1,143,296	7/0 $\frac{1}{4}$
1900	3,520,216	1,243,407	7/
1901	4,338,635	1,061,034	4/10 $\frac{3}{4}$
1902	4,753,944	1,360,492	5/8 $\frac{1}{2}$
1903	4,279,485	1,244,656	5/9 $\frac{3}{4}$
1904	5,432,494	1,017,541	3/9
1905	5,342,777	1,343,080	5/
1906	4,979,848	1,649,163	6/7 $\frac{1}{2}$
1907	6,253,341	1,795,650	5/9
1908	5,690,114	1,151,644	4/0 $\frac{1}{2}$
1909	4,541,297	1,569,743	6/11
1910	5,687,226	1,594,308	5/7
1911	5,036,484	1,505,334	6/
1912	5,201,300	1,910,533	7 4 $\frac{1}{2}$

CHANGES IN MEANS OF CAPTURE.

As contributors to the herring supplies, power-propelled vessels made a further advance upon the position so long held by sailing vessels. The rapidity of the transition which is taking place in this respect is well exemplified in the following table.

TABLE showing the Percentage of the Total Catch of Herrings obtained by Steam, Motor, and Sailing Boats respectively in each year since 1906:—

Year.	Steam Vessels. Percentage.	Motor Vessels. Percentage.	Sailing Vessels. Percentage.
1906	31	—	69
1907	45	—	55
1908	50	—	50
1909	54	—	46
1910	56	4	40
1911	59	5	36
1912	61	6	33

From the above table it will be seen that the proportions of the total catch of herrings contributed by steamers and sailing boats respectively have been more than reversed within the short space of seven years.

SCOTTISH BOATS IN ENGLAND AND IRELAND.

But the operations of the Scottish herring fishermen are not limited to Scotland. They participate to an important extent in the herring fishery of both England and Ireland.

The following table shows the development and dimensions of such participation:—

Year.	ENGLISH FISHING.			IRISH FISHING.		
	No. of Boats.	Catch.	Value.	No. of Boats.	Catch.	Value.
		Cwts.	£		Cwts.	£
1899	679	822,500	242,460	...	17,500	6,240
1900	910	1,050,931	259,436	58	31,150	9,490
1901	951	850,941	197,126	104	45,619	15,718
1902	1009	1,445,797	356,428	158	35,157	12,456
1903	1184	1,166,928	213,462	218	60,928	21,967
1904	996	1,575,687	249,974	280	59,830	22,035
1905	1207	1,539,672	485,278	439	59,646	30,780
1906	1292	1,210,236	477,106	307	53,559	35,556
1907	1340	1,892,105	338,899	252	47,753	23,158
1908	1221	1,741,675	454,230	291	91,528	54,898
1909	1259	1,528,628	467,866	346	122,278	36,036
1910	1257	1,243,207	456,528	200	153,819	42,011
1911	1039	1,798,824	549,342	237	264,931	65,339
1912	1099	2,329,373	701,895	258	103,030	33,808

The foregoing figures are not included in the statistics already given of the Scottish fisheries. Though the fish are landed by Scottish boats, the returns are included in the fishery statistics of the particular country in which the fish are landed.

As an evidence of the enterprise of the Scottish fishermen, it may be stated in this connection that the proportion of the total herring catch of England and Ireland during 1912 landed in those countries by Scottish fishermen amounted to 43 per cent. and 23 per cent. respectively, while in the previous year in Ireland it amounted to 46 per cent.

#### CURED HERRINGS EXPORTED.

The total export of cured herrings for 1912 was 1,538,349 barrels, being an increase from 1911 of 30,227 barrels (Appendix E, p. 132). The principal market is on the Continent of Europe. The greater part of the export goes to the two countries of Germany and Russia. The following is the rate of export to each since 1899:—

YEAR.	*To GERMANY.	To RUSSIA.
	Barrels.	Barrels.
1899 . . .	714,230	166,873
1900 . . .	769,126	172,462
1901 . . .	998,240	233,129
1902 . . .	1,049,502	292,987
1903 . . .	794,711	303,202
1904 . . .	1,095,683	384,443
1905 . . .	1,057,315	430,554
1906 . . .	1,025,886	424,200
1907 . . .	1,186,100	627,100
1908 . . .	1,001,645	616,497
1909 . . .	786,682	574,307
1910 . . .	982,361	732,345
1911 . . .	794,219	655,814
1912 . . .	719,013	750,187

\* From 40 to 50 per cent. of the total quantity of herrings exported to Germany is sent over the frontier to Russia.

#### 2. WHITE FISH FISHING.

After the herring fishery, the next most important branch of the industry in Scotland is the white-fish fishing. This fishing is carried on by means of three classes of vessels and three methods of fishing—the vessels differentiated by their methods of propulsion (steam, motor, or sails and oars), and the methods of fishing, whether by trawls,



anchored nets, or by lines. We will deal with the results of these methods (1) in the aggregate, and (2) separately.

The following are the totals of the white-fishing since 1900 :—

Year.	Quantity.	Value.
	Cwts.	£
1900	1,834,498	1,074,600
1901	2,024,867	1,166,919
1902	2,076,580	1,133,088
1903	2,168,973	1,145,887
1904	2,459,373	1,202,942
1905	2,481,085	1,296,727
1906	2,558,574	1,306,529
1907	2,696,943	1,334,797
1908	2,917,295	1,351,108
1909	2,830,728	1,305,811
1910	2,968,598	1,491,339
1911	3,391,316	1,540,539
1912	3,331,799	1,666,380

The outstanding feature of this table is the steady increase both in quantity and value, of the white fishery of Scotland.

The next two tables show the proportion in which the above result is contributed to by the three different methods of fishing :—

#### TRAWLING.

Year.	No of Vessels (Steam).	Catch.	
		Quantity.	Value.
		Cwts.	£
1900	232	1,073,164	699,587
1901	256	1,325,072	820,813
1902	275	1,465,073	812,229
1903	280	1,566,370	829,932
1904	270	1,705,633	841,757
1905	266	1,745,431	948,117
1906	274	1,870,517	957,008
1907	287	2,061,336	985,751
1908	311	2,092,411	971,972
1909	314	2,020,209	953,259
1910	320	2,102,031	1,102,976
1911	328	2,439,108	1,113,820
1912	322	2,392,692	1,232,193

## LINE AND NET FISHING.

Year.	No. of Vessels.		Catch.	Value.
	Steam.	Sail and Motor.		
			Cwts.	£
1900	52	5404	757,000	371,000
1901	75	5367	696,000	341,000
1902	68	5154	608,700	318,300
1903	91	4884	602,600	315,900
1904	129	4462	753,700	361,200
1905	164	4593	735,654	348,610
1906	191	4425	688,057	349,521
1907	244	4083	635,601	349,041
1908	337	3767	824,684	379,079
1909	411	3634	810,519	352,552
1910	346	3563	866,567	388,363
1911	346	3478	952,208	426,719
1912	350	3420	939,107	434,187

Line and net fishing have been more successful, both in quantity and value, than for some years. This appears to be due to the introduction of motor propulsion to the smaller inshore line fishing, and to the introduction of the method of fishing cod with nets into the Moray Firth.

## PERSONS EMPLOYED.

The number of persons employed in the fisheries of Scotland and the various industries subsidiary thereto in the year 1912 was 90,040. Of these, 38,759 manned the fishing fleet, 16,254 were gutters and packers of herrings, 14,560 were engaged in the carrying trade, and the remainder were engaged in other operations connected with the fishing industry.

## IMPROVEMENT OF FISHERY HARBOURS.

From time to time the Board has pressed the question of the growing need of increased harbour accommodation, owing to the change from sailing boats to steamers of the vessels engaged in the herring fishing. Harbours which were adequate to the circumstances existing at the time of their erection are becoming year by year less capable of meeting the growing demand both in docking space and depth of water. Fishermen are thus forced to have their fishing boats at sometimes considerable distances from their homes when laid up for the winter months. The necessary attention and repairs required can only be carried out at great expense in travelling and otherwise, to say nothing of enhanced dock charges. Several other inconveniences and economic dangers following upon the phenomenal rapidity of change from sailing power to steam have impressed upon the Board the absolute necessity of making the harbours reasonably adequate to

meet that change. This is without doubt the most pressing problem in connection with the herring fishing industry.

The establishment of a National Development Fund under the provisions of the Development Act (9 Edw. 7, c. 47), (with special powers under Section 1, sub-section (1) (e) and (g) for the Treasury, upon the recommendation of the Development Commissioners, to make advances to a Government Department, or through a Government Department, to a Public Authority for, among other objects, (e) the construction and improvement of harbours, and (g) the development and improvement of fisheries) appeared to the Board to afford a favourable opportunity to bring this subject as a whole under the notice of the Development Commissioners before they decided upon the merits of individual cases submitted to them. In order to expiscate matters fully a Committee of the Board visited the localities, and interviewed the various harbour authorities and inspected the harbours. They duly reported to the Board, and the Board to the Development Commissioners. The latter body afterwards deputed two of their number, namely, the Vice-Chairman and Sir W. Haldane, together with their Secretary, to visit these localities, and they were accompanied by the Deputy-Chairman and Secretary of the Fishery Board.

The result up to this date is shown in the following table.

GRANTS AND LOANS TO SCOTTISH FISHERY HARBOURS.

Name of Harbour.	By Development Commissioners.			By Fishery Board.	Total Free Grants.	Total Loans.	Total Amount to be applied to Harbour Assistance.
	Free Grant.	Free Loan.	Loan bearing Interest.	Free Grant.			
	£	£	£	£	£	£	£
Berwick-on-Tweed,	4,000	—	7,000	—	4,000	7,000	11,000
Port Seton, . . .	1,250	—	—	4,350	5,600	—	5,600
St. Andrews, . . .	—	—	—	1,500	1,500	—	1,500
Stonehaven, . . .	6,500	7,000	—	—	6,500	7,000	13,500
Gardenstown, . . .	4,000	—	4,000	—	4,000	4,000	8,000
Macduff, . . . . .	10,000	—	12,000	2,000	12,000	12,000	24,000
Cullen, . . . . .	2,300	—	2,300	—	2,300	2,300	4,600
Portknockie, . . .	3,200	—	2,800	—	3,200	2,800	6,000
Findochty, . . . .	1,500	—	1,500	500	2,000	1,500	3,500
Buckie, . . . . .	8,000	25,000	—	2,000	10,000	25,000	35,000
Nairn, . . . . .	7,000	—	9,000	—	7,000	9,000	16,000
Wick, . . . . .	—	15,000	—	—	—	15,000	15,000
Whitehall, Stronsay.	10,000	—	—	—	10,000	—	10,000
Lerwick, . . . . .	7,500	—	2,500	—	7,500	2,500	10,000
Ullapool, . . . . .	2,000	1,500	—	—	2,000	1,500	6,500*
Maidens, . . . . .	—	—	—	1,500	1,500	—	1,500
Totals, . . . . .	67,250	48,500	41,100	11,850	79,100	89,600	171,700

\*£3000 from the Board of Agriculture for Scotland.

The Fife Harbours present difficulties, engineering and otherwise, which are still under consideration.

#### INTELLIGENCE.

The Board's system of official telegraphic information between ports at which a herring fishing is in progress was begun in a tentative way in the year 1895, when 3800 telegrams were first issued. Last year the number of telegrams amounted to 5087.

The telegrams are despatched daily at noon by the Board's Fishery Officers from their own ports to every other port in Scotland at which a herring fishing is then going on, and in the event of additional information of value becoming known later in the day a second telegram is despatched. Upon receipt they are exhibited publicly at the fishmarkets and other public places, where they can readily be seen by all concerned.

The points on which the telegrams give information are (1) number of arrivals of herring boats, (2) average catch per boat, (3) quality of the fish, (4) range of prices, (5) position of chief fishing grounds, and (6) nature of wind and weather. Duplicates of all these telegrams are at the same time sent to the Head Office in Edinburgh.

At the end of each week telegrams are sent by each District Officer to the Board giving the catch for the week, the quantity cured, the number of barrels branded under each brand, the quantity exported, and the countries to which exported. This information is tabulated, and a statement of the totals for the East Coast, Orkney and Shetland, and the West Coast respectively is sent for publication to the Press.

A statement is also issued at the end of each month showing the quantity of cured herrings of each description in stock in this country.

Information is also received from Germany, Holland, Norway, and Sweden giving particulars, in so far as those countries are concerned, of the catch, cure, and export of herrings and other sea-fish, and this is also issued to the Press for the information of those interested.

The publication of such information in the Press depends, however, upon the convenience and the exigencies of the time and space at the disposal of the various newspapers, many of which do not circulate extensively among those most directly interested. The Board therefore have had long in contemplation a publication of their own in order to make directly available all the information at their disposal to those engaged in the various branches of the fishing industry. Hitherto they have not been enabled to succeed in this object for the lack of funds.



## MEANS OF CAPTURE.

## I. FISHING BOATS AND VESSELS PROPELLED BY SAILS OR OARS (OTHER THAN BEAM OR OTTER TRAWLERS).

The returns for 1912 show that the decline in the number of sail fishing boats still continues. During the three years 1909-11 the average decrease was 332, but for 1912 a decrease of 445 falls to be recorded. Although the decrease in the number of boats was greater, the decline in tonnage and value was less, that being principally due to the fact that the decrease was mainly attributable to the smaller classes of boats.

Part of the decline was due to the adoption of motor engines, but the great portion was caused by the non-replacement of boats which had become unserviceable.

Practically every district shared in the decline, which was more marked on the West Coast than on the East Coast or in Orkney and Shetland, the respective figures being 218, 195, and 32, representing 7·2, 5·1, and 3·4 per cent. of the totals in 1911.

As showing the difference between the industry on the East Coast and on the West Coast, it may be mentioned that on the former the average tonnage of the sailing vessels is 15, the average value £109, and the average value of gear £103, while the corresponding figures for the latter are 4, £19, and £24.

With the decrease in the number of boats there has, as in previous years, been a decrease in the extent of gear used. The only exception to this is given by unclassified nets, which again show an increase, due largely to the extension of the cod-net fishing in the Moray Firth.

## II. STEAM FISHING VESSELS (OTHER THAN BEAM OR OTTER TRAWLERS).

In continuation of the return furnished in previous years, the following table gives particulars of the Scottish steam fishing fleet since the year 1902:—

YEAR.	VESSELS.					FISHING GEAR.		MEN AND BOYS EMPLOYED.*		
	Number.	Percentage of Increase.	Tonnage.	Percentage of Increase.	Value.	Percentage of Increase.	Value.	Percentage of Increase.	Number.	Percentage of Increase.
1902	100	3	2,900	8	£ 205,620	2	£ 28,990	10	829	2
1903	156	56	4,025	39	355,915	73	45,089	56	1,296	56
1904	204	31	5,161	28	453,095	27	59,596	32	1,639	26
1905	209	2	5,177	...	452,080	...	64,327	8	1,747	7
1906	274	31	6,538	26	608,060	35	96,588	50	2,347	34
1907	508	85	11,828	81	1,245,268	105	182,426	89	3,993	70
1908	626	23	15,610	32	1,535,550	23	232,216	27	4,924	23
1909	665	6	16,864	8	1,635,602	6½	248,455	7	5,428	10
1910	725	9	18,757	11	1,762,686	8	272,982	10	5,748	6
1911	794	10	21,146	13	1,903,298	8	303,201	11	6,064	5
1912	824	4	22,470	6	1,953,140	2½	315,722	4	6,290	3

\* Including non-resident men.

N.B.—The vessels returned include several mussel dredgers.

It will be observed that all the figures again show increases. The addition to the fleet was the smallest recorded since 1905, but in view of the dimensions which the fleet has attained and the circumstances which attended the herring fishing in 1911, the increase may be regarded as satisfactory. The addition would doubtless have been greater but for the increase in the cost of construction, which deterred several prospective purchasers from acquiring new vessels.

Since 1902 the fleet has increased in number from 100 to 824, in tonnage from 2900 to 22,470, and in value from £205,620 to £1,953,140, while the value of gear has risen from £28,990 to £315,722. The figures require no comment; they testify sufficiently themselves to the enterprise, ability, and success of those engaged in the industry.

As in previous years, information has been collected as to the earnings of steam vessels at the principal herring fishings, and while the reports are probably not mathematically correct, the following table gives a fairly accurate estimate of the average figures for the principal districts:—

DISTRICT.	AVERAGE EARNINGS PER VESSEL.			
	Great Summer Herring Fishing.		English Herring Fishing.	
	1912.	1911.	1912.	1911.
	£	£	£	£
Anstruther, .. ..	830	746	740	598
Aberdeen, .. ..	740	630	660	685
Peterhead, .. ..	982	743	825	600
Fraserburgh, .. ..	1,043	1,019	790	663
Banff, .. ..	960	900	750	600
Buckie, .. ..	950	940	800	700
Findhorn, .. ..	1,000	900	700	700
Wick, .. ..	1,020	840	720	590

It will be observed that for the great summer herring fishing the earnings all round showed increases, those of the Peterhead and Wick districts being specially noticeable. The Fraserburgh crews retain the leading place, but they are closely followed by those hailing from Wick and Findhorn.

The results from the English fishing also show general improvement on those for the previous year, only one district returning a decrease. Herrings were plentiful, but with a continuous demand good prices prevailed throughout, and the majority of the crews had a very successful season.

While the herring fishings mentioned above represent the main sources of income of the steam fishing fleet, it must be borne in mind that many of them also pursue the herring fishing at other centres and times, while others engage in line-fishing. The fishing at Ireland in the early part of the year appears generally to have yielded poor results to the Scottish boats engaged, many of them having failed to

meet expenses, but some of the vessels which took part in the fishing on the West Coast of Scotland in December reaped rich harvests.

The steam vessels which devoted their attention to line-fishing were generally only moderately successful, although some made very good earnings. Stormy weather on the Atlantic grounds and the presence of dog-fish were reported as responsible for the non-success.

As has been the case for a few years, some 22 Aberdeen trawlers were fitted out for lining in the spring, but failure again attended their efforts.

Towards the close of the year, a modern steam drifter belonging to one of the south Moray Firth ports was fitted out with trawling apparatus. The first trips of the vessel did not yield particularly good results, but there has not yet been sufficient experience to show whether or not the experiment will prove successful. The venture is another indication of the desire, born of necessity, to employ the steam vessels as continuously as possible, and its progress will be watched with interest.

### III. BEAM AND OTTER TRAWL VESSELS.

In this section of the returns a decrease in the number of steam vessels falls to be recorded for the first time since 1904, the total being 3 less than in 1911—304 as compared with 307.

There has, however, been a greater change in the fleet than those figures indicate, and the tonnage and value both show increases over the figures for 1911. This was due to the replacement of vessels lost or sold, by larger vessels, and as the new vessels are fitted with modern appliances the fishing power of the fleet was probably greater in 1912 than in the previous year, despite the nominal decrease in the number of vessels.

### IV. MOTOR FISHING BOATS.

The view expressed in recent Reports that the marine motor engine had a distinct future before it in the fishing industry is amply borne out by the returns for 1912. A comparison of the appropriate table (App. A, No. 1, p. 8) with the corresponding return for 1911 shows that there has been an increase of 123 boats fitted with motor engines, the respective totals being 356 and 233.

The following table shows at a glance the progress which the fleet has made since the motor engine was first introduced into the industry in 1902:—

Year.	1st Class. 30 feet keel and upwards.	2nd Class. 18 to 30 feet keel.	3rd Class. under 18 feet keel.	Total.
1902	2	—	—	2
1903	3	—	—	3
1904	3	—	—	3
1905	4	—	—	4
1906	5	—	—	5
1907	6	1	—	7
1908	11	7	—	18
1909	38	30	7	75
1910	57	90	9	156
1911	79	144	10	233
1912	96	244	16	356



It will be observed that for the first seven years little progress was made, and that it was not until 1909 that the fleet attained appreciable proportions. Since 1909 the increase has been rapid, especially in the second-class boats, and there is every reason to expect that it will continue.

The increase on the East Coast was 39, in Orkney and Shetland 6, and on the West Coast 78, and the fleet is now distributed as follows:—

	No. of Boats.	Tonnage.	Value of Boats and Gear.
East Coast, ...	120	3,259	£105,320
Orkney and Shetland,	31	203	7,523
West Coast, ...	205	1,754	37,726

Of the West Coast increase, no fewer than 67 were applicable to the Clyde districts, where the proved superiority of the motor boat over the sail boat has led the majority of the best fishermen to adopt motor propulsion. In Campbeltown district alone there was an increase of 25, and the regular herring fleet now comprises 72 motor boats and only 10 sailing boats. Ballantrae district, with an increase of 22, followed Campbeltown closely. The other three Clyde districts shared in the increase, and it is pleasing to note that the districts of Fort-William and Loch Carron and Skye also report additions.

In the Clyde districts the motor boats are mainly engaged in herring fishing, but the increase in the East Coast numbers was largely due to the development of the use of the motor in line-fishing boats. The number of large herring drifters fitted with motors shows an increase of 5, and the remaining 34 added to the East Coast fleet consist of smaller boats which are mainly used for lining.

Wick district returns the largest increase on the East Coast—17. Of these, only one was a large boat, the remaining 16 being boats of 14 to 35 feet keel, which are principally employed at line fishing. Good results have been obtained by those boats, and further additions to the fleet are expected.

Banff district returns an increase of 4, a number small in itself, but noteworthy in that it marks a new departure. The addition was attributable to the village of Whitehills, where haddock boats of 26 to 29 feet keel have been fitted with motors. The results have proved highly satisfactory, and from information received since the returns were compiled it appears that the Whitehills motor fleet will show a large increase during the current year. If the experiment continues to meet with success, and there seems little doubt on the point, the example of Whitehills will no doubt prove contagious.

From Montrose district an increase of 8 is reported, and when the year closed several other boats were being fitted with motors. The boats in which motors have been installed are of 30 to 45 feet keel, and while they are chiefly used for line-fishing the fishermen intend to prosecute the great summer herring fishing with them. This development is attributable to Gourdon and Johnshaven, where the mill-owners are assisting the fishermen financially, partly, it is stated, in the hope of retaining the families in the district and so securing a supply of female labour. At Johnshaven, also, a limited liability company with a capital of £1600 has been formed for the purpose



of acquiring motor fishing boats, and operations were commenced before the close of the year.

Other districts on the East Coast are also awakening to the possibilities of the motor engine for small-line fishing boats, and it is confidently expected that during the present year considerable extension will take place.

*Types of Motor Engines installed in 1912.*

For the largest type of boat the Gardner and Alpha engines appear still to retain their popularity, but in the smaller classes the Kelvin occupies first place, both on the East and West Coasts, and, judging from the numbers supplied, this engine is much ahead of other types in the estimation of fishermen. While that is so, the other makes have not been neglected, and a new name—the Grei—falls to be added to the list given in previous Reports.

The cost of engines has remained much the same as in previous years, and the makers are generally prepared to accept payment by instalments. As regards running expenses, these have increased owing to the rise in the price of oil. The hope expressed in previous Reports that engines adapted to the consumption of crude oil would soon be constructed has, unfortunately, not yet materialised, and the principal fuel is still paraffin.

*Earnings of Motor Boats.*

For the reasons given in former Reports, it is difficult to obtain accurate information as to the earnings of fishermen, but careful enquiry has been made and a comparison of the estimates received from the principal districts where steam, motor, and sailing vessels are employed at the principal herring fishings shows that, as before, the earnings of motor boats are intermediate between those of steam vessels and sailing boats.

As illustrative of this statement, the earnings at the Scottish great summer and the English herring fishings of the different classes of boats of four districts from which estimates were obtained have been summarised, with the following result :—

	Summer Herring Fishing. Average Earnings.	English Herring Fishing. Average Earnings.
Steam Drifters,	£945	£790
Motor „	600	467
Sail „	406	300

As regards the West Coast boats, the following figures have been obtained from Campbeltown and Inveraray districts, and they may be taken as reliable estimates of the earnings of the boats in those districts :—

Pairs.	Gross Earnings per Pair.	
	Campbeltown.	Inveraray.
Motor Boats, ...	£840 to £2,100	... £250 to £1,200
Motor and Sail Boat,	360 to 700	... 200 to 600
Sail Boats, ...	—	... 60 to 300

The boats from these districts operate almost entirely with the seine-net, and necessarily work in pairs. It will be observed that no figures are given for pairs of sail boats at Campbeltown. This is due to the fact that of every pair of boats belonging to that district, at least one was motor propelled, and it may safely be predicted that all the boats engaged in the fishing will be fitted with motors before long.

As regards boats engaged in line fishing, particulars to enable a proper comparison to be made between the earnings of motor boats and sail boats are, unfortunately, not available. The reports received, however, are clear as to the greater earning power of the motor boats, and in one district it is stated that they earned twice as much as sail boats engaged at the same time.

#### *Conclusion.*

So far as the largest class of boat is concerned, the motor has not yet taken the place which, a few years ago, it was expected to take. This is no doubt partly due to the size which the steam fishing fleet had attained before the marine motor engine became reliable, but, with the greater flexibility of the steam engine and the capstan difficulty in motor boats, it is doubtful, as matters stand at present, whether any great extension of motor power to large drifters will take place in the near future.

With the smaller classes of boats which work on the inshore grounds and in the West Coast lochs the conditions are different, and for such the motor engine is eminently suitable. As remarked above, there has been a great development in the use of motors in these boats, and as the fishermen all round the coast are alive to the possibilities of motor propulsion, it is probable that the next few years will witness a great extension of the use of the motor in Scottish fishing boats.

## FISH LANDED.

### I. TOTAL CATCH.

Before proceeding to discuss the statistics of fish landed, it should be explained that the landings by foreign fishing vessels, which have been excluded from the returns since October 1910, have been re-included in the statistics for 1912. The decision to exclude them was based on the assumption that such landings should be regarded as imports, but the contribution of foreign vessels to the fish supply has now attained such dimensions, and is growing so rapidly, as to leave the Board no alternative but to re-include them, if anything like an accurate picture of the total fish supply is to be presented, and particularly as these vessels fish regularly from Aberdeen. An improved method of tabulation has, however, been adopted, the landings by foreign vessels being now shown separately, whereas formerly they were included in the general figures. In order, also, that a proper comparison with the preceding year's figures may be drawn, the landings by foreign fishing vessels in 1911 have been included in the totals for that year, as shown in the tables.

From a fishery point of view the year 1912 was a memorable one,

not because of any outstanding feature as regards the catch (although the herring catch was a fair average one, while the white-fish total has been exceeded only by that of 1911), but because in point of value all previous records were left far in the rear. As stated in the introduction to this report, the total quantity of fish landed in Scotland in 1912 (exclusive of shell-fish) was 8,587,106 cwts., valued at £3,588,584, an increase in quantity of 75,132 cwts., and in value of no less than £528,010, as compared with 1911. For this remarkable increase herrings, with an advance upon last year's total of £405,199, or 27 per cent., were mainly responsible, although a considerable share of the credit must also be given to white-fish, which improved upon last year's figures to the extent of £125,841, or 8 per cent. Towards the gross catch herrings and other pelagic fish contributed 61 per cent., trawled fish 28 per cent., and demersal fish taken by line and net 11 per cent., as compared with 60, 29, and 11 per cent. respectively in 1911; while as regards value the corresponding percentages were 54, 34, and 12, as against 50, 36, and 14 in the preceding year. The average price per cwt. realised was 8s. 4d., as compared with 7s. 2d. in 1911, and 7s. 1d. in 1910. The shell-fish landed realised a total of £67,594, or £239 more than in 1911, bringing the gross total value of all kinds of fish up to £3,656,178, or £528,249 more than in 1911—a result which affords a striking testimony to the prosperity, and the importance in the national economy, of the Scottish fisheries.

## II. PELAGIC FISH TAKEN BY NETS.

### (a) HERRINGS.

The total catch of herrings in 1912 amounted to 5,201,300 cwts., valued at £1,910,533, as compared with 5,036,484 cwts. and £1,505,334 in the preceding year. The increase in quantity was wholly attributable to the early summer fishing, the yield of which was augmented to the extent of 181,804 cwts. The winter catch was almost identical with that of 1911, the difference, in favour of 1912, being only 461 cwts., while the great summer fishing fell off to the extent of 17,449 cwts. The total value easily eclipsed all previous records, the increase upon the previous year's figures amounting, as was stated above, to £405,199, or 27 per cent., while the previous highest value, which was recorded in 1907 (when, however, the catch was greater by 1,052,000 cwts.), was exceeded by £114,883. The high prices which brought about this remarkable result were due to a combination of favourable circumstances. The early fish, which in the two previous seasons had been of very poor quality, were in 1912 firmer and more mature, and in consequence much more suitable for curing. This, and the fact that the weather was cool and favourable for transport, induced curers to start curing for the Continent almost from the opening week of the fishing. The market conditions on the Continent, also, could not have been better. Stocks of the previous year's cure were exhausted, and the prices of other foodstuffs were high, and these circumstances, combined with the continual opening up of new markets, created a demand throughout the season which it seemed impossible to overtake. Curers were thus in a position to bid



to the last farthing of its value for the fresh article, and as the fishing was a remarkably level one, with an entire absence of the alternate periods of glut and shortage which frequently characterise it, prices soon reached, and maintained to the close of the season, a higher level than ever before.

The extent to which prices were affected by the conditions described is well brought out by a comparison of the average prices per cwt. realised. During the year under review it was 7s. 4d., as against 6s. in 1911. This is the highest price ever reached, the previous highest (7s.) having been attained in 1899 and 1900. In 1896 it was as low as 3s. 5d., but for the average prices in other years reference should be made to the table given on p. iv.

With one or two minor points of difference, the course of the fishing during the year under review bore a general resemblance to that of the two previous seasons. The winter catch was again a very small one, while on the East Coast the summer fishing was again in full swing by the end of May, and had practically terminated by the end of August. It was in regard to the observance of a close time, and the weather conditions, that the season of 1912 was principally differentiated from its predecessor. In 1911 a close time in the beginning of the season was forced upon the fishermen by the disastrous results which followed upon the landing of large quantities of immature fish. The lesson of that experience was not lost upon them, and accordingly a proposal to observe a voluntary close time until the 10th June was generally adopted, but as the English and Shetland fishermen declined to agree to it, it was never carried out. Still, the decision partly effected its purpose, as it retarded for a fortnight the fitting out of a large number of craft, and caused a number to proceed to the West Coast.

As regards the weather, the seasons of 1911 and 1912 were in direct contrast, the former having been calm and hot, and the latter breezy and cold, and in this connection it may be remarked that the good quality of the fish in 1912 came as a matter of surprise to those connected with the industry, with whom the maxim "cold summer—poor herrings" had become axiomatic.

Of the total landings, the East Coast contributed 49 per cent., Orkney and Shetland 37 per cent., and the West Coast 14 per cent., the corresponding percentages in respect of value being 47, 39, and 14. Of individual contributors, Shetland, with a catch of 1,393,752 cwts., was, as usual, an easy first, this quantity slightly exceeding the combined catches of the two most important stations on the East Coast—Fraserburgh and Peterhead. Other prominent contributors on the East Coast were Wick and Aberdeen, while on the West Coast Stornoway was, as usual, a long way ahead of any other district. One of the most striking features of recent years has been the rapid rise to importance of Stronsay as a fishing centre. Last year this port made another big step in advance, with the result that in the returns for 1912 Orkney now treads closely upon the heels of such an old-established centre as Wick. Stronsay's progress will best be appreciated when it is stated that the landings in Orkney district have risen from 128,000 cwts. in 1906 to 541,000 cwts. during the year under review.

Attention has been drawn in recent reports to the rapidly-in-

creasing proportion of the total catch landed by power-driven vessels. In 1912, however, the breezy weather enabled the sailers to compete for a time on equal terms with their power-driven competitors, and this transition was retarded, although not entirely checked. The following table shows the position of matters at a glance:—

TABLE showing the Percentage of the Total Catch of Herrings obtained by Steam, Motor, and Sailing Boats respectively in each year since 1906:—

Year.	Steam Vessels. Percentage.	Motor Vessels. Percentage.	Sailing Vessels. Percentage.
1906	31	—	69
1907	44	—	56
1908	50	—	50
1909	54	—	46
1910	56	4	40
1911	59	5	36
1912	60·4	6·2	33·4

In last year's report reference was made to a question which was greatly exercising drift-net fishermen, viz., steam-trawling for herrings. Drifters are apprehensive that this method of fishing may ultimately injure their industry, and although the quantity so taken and landed in Scotland in 1912 was very small—5714 cwts., as against 17,709 cwts. in 1911—this by no means served to allay their apprehensions, inasmuch as the new method was prosecuted with greater vigour than ever from the English trawling ports.

To sum up, it may be affirmed without hesitation that the year 1912 was the most prosperous on record for all connected with the herring-fishing industry. In making this statement regard is, of course, had to the operations of the Scottish contingent at the English herring fishing, the success or failure of which now so vitally affects the prosperity of Scottish fishermen. Fishermen made higher earnings than ever before, while, what is not always the case in a "fishermen's year," curers in most cases also did excellently well. And, owing to the unprecedentedly heavy landings in East Anglia, workers in the gutting, coopering, and other occupations ancillary to herring fishing could, equally with the fishermen, congratulate themselves at the close of the season on a most lucrative year's work.

#### *Winter Herring Fishing.*

The winter herring fishing, which covers the first quarter of the year, was again a failure, the decline which has been in progress for some years having been barely arrested. The total quantity landed amounted to 247,313 cwts., which realised £64,195, or 461 cwts. and £2567 more than in 1911. At only one of the three recognised centres of this fishing—the Firth of Forth—was any improvement manifested, and there only to the extent of 3605 cwts., or 6 per cent. At the other two, matters went from bad to worse, the Stornoway catch receding from 65,000 cwts. to 59,000 cwts., and that at Wick from 3717 cwts. to 2091 cwts. Nor did the stations which have in recent years helped

to counterbalance the deficiency at the older centres do so last year, the landings in both Shetland and Fort-William districts falling considerably short of the preceding year's totals. Happily, the winter fishing was saved from reaching its nadir by a successful fishing which was carried on in the vicinity of Loch Ryan, where 39,000 cwts. were landed, as against 17,000 cwts. in 1911.

It will be observed that the winter fishing is the only one in which the landings by sail boats exceed those of the steamers, the reason being that steamers seldom or never participate in the fishing in the Firth of Forth.

Slightly better prices were realised than in 1911, the respective averages per cwt. being 5s. 2d. and 5s.

### *Early Summer Herring Fishing.*

The early herring fishing, which is carried on principally in May and June, resulted in a total catch of 2,102,122 cwts., valued at £628,817, these figures representing increases of 181,804 cwts. and £224,639 respectively upon the totals for 1911. Of the quantity, 48 per cent. was landed in Orkney and Shetland, 43 per cent. on the East Coast, and only 9 per cent. on the West Coast—figures which indicate a striking divergence from the distribution which obtained a decade ago, when the West Coast's share of the catch amounted to 37 per cent., and the East Coast occupied the lowly position now taken by the West Coast. The gradual shifting of the base of operations from the Atlantic to the North Sea (in Shetland also it has been transferred from the West to the East side of the islands) is a phase of the industry which has frequently been commented upon in these reports, resulting as it has done in the trebling of the early summer catch within a decade. The necessity for employing the large amount of capital invested in steam drifters, coupled with the opening up of new markets for the early fish, has been the principal factor in bringing about this evolution. It is not yet certain, however, that the early fishing on the East Coast will prove an asset of permanent value to the fishermen and curers. The fish, as a rule, will not cure to keep for any length of time, and prior to last year dealings in them in many cases resulted in heavy losses. For good or ill, however, the old order of things has changed, and if a continuance of the favourable conditions of 1912 could be guaranteed, the future could be faced with equanimity. Unfortunately, those conditions—cold weather and expanding markets—are not likely to recur very frequently, at least in conjunction, but at the same time it is certain that the expansion of the area of consumption is far from having reached its limit, while the difficulty presented by the perishable nature of the early fish will probably be overcome by an extension of the system of cold storage.

Of individual districts, Shetland, with a catch of 806,437 cwts., or almost three times that of its nearest rival, Wick, easily took first place; while on the East Coast the catch at Wick, which took the leading place, constituted a record for the port. On the West Coast a welcome improvement occurred at Stornoway, where the catch of 1911 was considerably more than doubled—the figures being respectively 35,039 cwts. and 84,803 cwts.—and this improvement



was the more gratifying in that it was accomplished with a much smaller fleet.

The average price per cwt. works out at 6s., as compared with 4s. 2d. in the previous year—an increase which is eloquent testimony to the improved quality of the fish in 1912. The average prices realised by steamers, motor boats, and sail boats were respectively 6s. 1d., 5s., and 5s. 11d., as against 4s. 5d., 3s. 9d., and 3s. 11d. in the preceding year.

### *Great Summer Herring Fishing.*

For statistical purposes, the great summer fishing covers the period from 1st July to the close of the year, although on the East Coast and in Shetland, of course, it is now simply the continuation of the early fishing. For some years the shoals have evinced a tendency to disperse at a much earlier date than they were wont to do, and during the last two years the season has closed before the end of August in Shetland, and early in September on the East Coast. Practically the only operations carried on on the East side thereafter are those conducted in the Inverness and Beauty Firths in November and December. On the West Coast, however, it is carried on as the Lochs fishing until the close of the year.

The total catch amounted to 2,851,865 cwts, valued at £1,217,521, as compared with 2,869,314 cwts. and £1,039,528 in 1911. The slight falling off in quantity was due to the fact that herrings became scarce even earlier than in 1911, while the large increase in value was due to causes which have already been touched upon. Dealing separately with the three sections of the coast, it is found that the East Coast, with 1,556,274 cwts., falls short of the catch of 1911 by 77,245 cwts., for which the failure of the fishing on the grounds from Aberdeen southwards was responsible. Orkney and Shetland improved upon the preceding year's catch of 898,874 cwts. by 26,485 cwts., the entire credit for which falls to Stronsay, as the catch in Shetland itself fell from 630,500 cwts. to 576,000 cwts. On the West Coast the catch amounted to 370,178 cwts., or 33,257 cwts. more than in 1911. Herrings were much more plentiful in the Minch during the autumn than in the preceding year, so much so as to induce a number of East Coast crews to abandon the East Coast fishing in its favour; and although fish were scarce in most of the north-west lochs, Loch Bracadale proved a notable exception, an exceedingly dense shoal being located there in December. Many East Coast steamers, learning of the heavy catches being obtained, hastened to participate therein, and, working from Stornoway and Mallaig as headquarters, made some remarkable earnings during the closing weeks of the year.

The average price per cwt. on the East Coast and in Orkney and Shetland was 8s. 6d., as against 7s. 5½d. in 1911, and on the West Coast 8s. 11d., as against 5s. 7d. in 1911.

In the following table the quantity of herrings landed in each district monthly in 1912 is shown, from which it will be seen that the most productive month was July, and the least productive, April.

RETURN showing the Quantity of Herrings landed in each District in each Month of the Year 1912.

District.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.
Eyemouth, . . .	571	2,478	2,156	18	9,593	28,375	28,067	20,705	5,411	..	..	..	106,374
Leith, . . .	2,585	3,542	1,909	69	419	435	609	155	284	247	251	373	10,968
Anstruther, . .	5,641	33,484	19,541	1,424	14	663	6,541	9,114	652	..	28	63	77,165
Montrose, . . .	..	..	119	28	537	1,402	13,133	13,600	27	..	..	..	28,346
Stonehaven, . .	..	..	..	56	294	2,303	4,540	1,897	..	..	..	..	9,090
Aberdeen, . . .	..	332	998	1,004	9,562	52,913	92,058	53,924	10,490	964	79	95	222,419
Peterhead, . . .	..	14	511	49	40,884	220,217	250,275	159,859	18,556	..	..	3	690,368
Fraserburgh, . .	..	..	..	..	17,680	207,757	305,063	160,800	9,665	..	..	..	700,995
Banff, . . .	..	98	137	..	2,209	8,180	8,430	6,511	606	..	..	..	26,171
Buckie, . . .	..	46	51	..	6,296	16,352	9,589	8,302	109	..	..	..	40,745
Findhorn, . . .	3,739	3,699	4,355	..	1,512	5,897	4,014	2,628	2,336	4,650	4,989	2,081	39,900
Cromarty, . . .	..	..	..	..	..	..	..	..	..	174	..	..	174
Helmsdale, . . .	..	..	..	..	21	56	35	7	..	..	..	..	119
Lybster, . . .	53	..	..	..	123	532	54	133	..	..	..	..	895
Wick, . . .	294	1,156	641	..	60,331	210,575	220,753	98,725	3,710	11	18	1,761	598,475
Orkney, . . .	11	..	..	..	39,510	152,391	254,022	95,022	98	..	..	63	541,117
Shetland, . . .	..	5,376	5,785	620	360,900	446,341	415,963	137,264	13,755	6,877	871	..	1,393,752
Stornoway, . . .	7,334	28,372	23,666	70	64,303	19,930	34,915	60,871	8,607	1,353	5,539	29,099	284,559
Barra, . . .	193	35	..	..	23,296	19,561	7,389	3,707	2,408	648	589	..	57,326
Loch Broom, . .	81	86	98	..	46	58	195	1,719	4,074	3,378	466	248	10,949
Loch Carron and Skye, . . .	7,938	2,447	185	21	599	1,131	5,475	10,448	5,391	11,665	5,523	7,812	58,636
Port-William, . .	10,360	18,176	2,250	..	12,381	4,742	637	2,811	3,073	2,500	1,020	31,264	89,214
Campbeltown, . .	990	1,008	5,516	6,814	15,106	14,701	10,185	1,785	20,686	23,696	4,415	907	105,809
Inveraray, . . .	..	..	28	140	1,372	1,337	1,872	1,152	241	483	781	266	7,672
Rothesay, . . .	..	12	44	504	776	1,177	2,175	6,916	2,507	318	1,121	532	16,082
Greenock, . . .	3	..	112	134	1,535	915	1,209	10,959	689	340	1,875	313	18,084
Ballantrae, . . .	25,783	9,453	3,821	111	1,042	3,202	5,207	3,534	1,101	553	332	10,703	64,342
TOTALS, . . .	65,576	109,814	71,923	11,062	671,341	1,421,143	1,682,495	881,548	114,506	58,358	27,960	85,520	5,201,246

(b) SPRATS, SPARLINGS, AND MACKEREL.

The Scottish sprat fishing was a failure in 1912, the entire catch amounting to only 5597 cwts., valued at £1866, as compared with 35,875 cwts. and £4234 in the preceding year. These fish were formerly difficult to dispose of in the home markets, owing to the limited demand for them, but now that the Norwegian "sardine" tinning industry has attained such dimensions, a good market can always be found for them, provided the fish are of good quality; but the sprat, unfortunately, is even more erratic in its movements than its congener the herring, and last year, although Norwegian buyers were on the spot prepared to purchase, the sprats failed to appear, and the buyers were compelled to turn to Brightlingsea and other English centres for their supplies.

The shortage in the catch caused a sharp advance in prices, the average price per cwt. having jumped from 2s. 4d. in 1911 to 6s. 8d. in 1912.

Sparlings, known in England as smelts, are obtained almost wholly in the Firth of Forth. During the year under review the total catch amounted to 400 cwts., which realised £1063, as compared with 300 cwts. and £648 in 1911.

Judged solely by the total result, the mackerel fishing failed to make any progress during the year, the quantity landed (48,010 cwts.) being only 11 cwts. greater than in 1911, while the value (£8742) was £1077 less. An examination of the tables, however, shows that on the north-west coast, which is the recognised seat of this fishing, the catch increased by 3417 cwts., or more than 23 per cent., while in the



Clyde the relatively large increase of 2858 cwts., or 43 per cent. occurred, dense shoals having been present in Lochfyne during the summer. In point of fact, the only decrease took place on the East Coast, where there is no organised fishing, the capture of mackerel being merely incidental to herring and trawl fishings.

### III. DEMERSAL FISH, TAKEN BY TRAWL, LINES, AND NETS.

The total quantity of demersal fish landed in Scotland in 1912 was 3,331,799 cwts., which realised £1,666,380. As regards quantity, this total is second only to the record catch of 1911, which it falls short of by 59,517 cwts., or less than 2 per cent., while in point of value the figures are the highest ever recorded, exceeding the preceding year's total by £125,841, or 8 per cent. Of the total catch, 2,392,692 cwts., valued at £1,232,193, were taken by trawls; 835,424 cwts., valued at £394,375, by lines; and 103,683 cwts., valued at £39,812, by set-nets, the corresponding figures for 1911 being 2,439,108 cwts. and £1,113,820 for trawls, 882,757 cwts. and £397,546 for lines, and 69,451 cwts. and £29,173 for nets. It will thus be seen that the decrease in quantity is referable to the catch by trawls and lines, as the quantity taken by nets was nearly doubled; and that the increase in value is referable to trawl and net caught fish in the ratio of 11 : 1.

The gratifying financial results of the year's operations were attributable to the improved demand for all kinds of fish in 1912, as a result of which the fleet of trawlers was in full employment all the year, while the quantity of fish sold as manure was comparatively small. For the deficiency in the landings, the coal strike, the labour dispute at Granton, and stormy weather were largely responsible.

One of the most striking features of the returns is the large proportion of the white-fish catch which is landed by foreign fishing vessels—mainly German trawlers working from Aberdeen. The latter vessels specialise in the Icelandic fishing, which, doubtless owing to their possessing a more intimate knowledge of the grounds, they appear to be able to prosecute to greater advantage than the home craft; and their catches, which consist mainly of cod, now form the mainstay of the dried-fish curing industry at Aberdeen. The quantity of demersal fish landed by these vessels in 1912 amounted to 469,213 cwts., or 14 per cent. of the whole, valued at £137,727, as compared with 336,217 cwts. and £82,564 in the preceding year.

#### (a) *ROUND FISH.*

The total quantity of round fish landed in 1912 was 2,974,897 cwts., valued at £1,304,490, these figures representing a decrease of 39,512 cwts. in quantity, but an increase of £124,613 in value, as compared with the figures for 1911. The value constitutes an easy record for this class of fish. The falling-off in quantity was almost equally distributed between trawl and line caught fish, the decreases from last year's figures amounting to 38,163 cwts. and 37,543 cwts. respectively (although the decline was, of course, relatively much greater in the latter case), these decreases being to some extent counterbalanced by an increase in net-caught fish, amounting to 36,194 cwts. The quan-

titles taken by the three methods of fishing in 1912 and 1911 are shown in the following table:—

Year.	Trawl.	Line.	Net.
1912 ...	2,197,014 cwts.	680,584 cwts.	97,299 cwts.
1911 ...	2,235,177 „	718,127 „	61,105 „

The decline in the line catch was mainly due to the diminished success of the steam liners, whose operations on the Atlantic grounds were much interfered with by stormy weather and the ravages of dog-fish. The increase in the quantity taken by net was due to the improved results which attended cod-net fishing in the Moray Firth.

Of the increase in value, about 93 per cent. was referable to trawled fish.

#### *Haddocks.*

This species was landed in 1912 to the amount of 953,226 cwts., valued at £575,957, as compared with 1,071,020 cwts. and £529,431 in the preceding year. Both the line and the trawl catch were involved in the decrease in quantity, but whereas the former shows a corresponding decline in value, the latter realised £54,494 more than in 1911. The trawl catch amounted to 810,976 cwts., or 92,736 cwts. less than in 1911, the decrease being general at all the trawling ports. Haddocks were scarce on the North-western grounds, and another unsatisfactory feature of the fishing was the preponderance of small haddocks in the catches obtained in the North Sea, the proportion of small fish in the total catch at Aberdeen having increased from 44 to 47 per cent., notwithstanding that during the last quarter of the year some splendid hauls of large haddocks were secured on the Dogger and Fisher Banks, where for years they have been scarce.

Line-fishing for haddocks is almost exclusively an inshore fishing prosecuted by small sailing boats, and the contribution from this source amounted to 142,250 cwts., valued at £83,384, or 25,058 cwts. and £7968 less than in 1911. Good catches were secured from time to time on various parts of the coast, but all over the fishing, as the results indicate, was less successful than in the preceding year, the greatest falling off occurring in Shetland, where very stormy weather prevailed during the spring and winter months.

The average price realised per cwt. was 12s. 1d., as compared with 9s. 11d. in 1911.

#### *Cod.*

For the third year in succession the landings of cod exceeded those of haddocks, and, provided the German trawlers which prosecute the Icelandic cod fishing from Aberdeen continue to land their catches there, the probability is that this species will permanently retain pride of place as the principal contributor to the white fish supply. Viewed in its relation to the world's food supply, the cod undoubtedly exceeds the haddock in importance, as, in its cured-dried form, it figures as prominently in the dietary of the Latin and Hellenic races of Southern Europe and elsewhere as does the herring in that of the Teutonic and Slavonic races of Northern and Central Europe. In 1912 the total

catch amounted to 1,235,043 cwts., as against 1,201,193 cwts. in 1911, and the remarkable way in which the cod-fishing has grown will be gathered from the following table contrasting the catch in 1892 and 1912, in which, for purposes of comparison, the corresponding figures as regards haddocks are also shown:—

Year.		Cod.	Haddocks.
1892	...	467,007 cwts.	722,785 cwts.
1912	...	1,235,043 „	953,226 „

The causes which have brought about this rapid expansion in the catch of cod were discussed at some length in the report for 1910, but, stated briefly, they may be said to be the opening up year by year of the deeper waters on the West Coast, off Iceland, and in the Atlantic, and the fact that in cod fishing, in contradistinction to haddock fishing, trawling has not so much superseded as supplemented line-fishing.

The percentages of the total catch attributable to the three methods of capture in vogue were, by trawl, 70 per cent.; by lines, 23 per cent.; and by nets, 7 per cent., while as regards the value, which was £506,212, or £57,271 more than in the preceding year, the corresponding percentages were 72, 21, and 7. The average price per cwt. over the year was 8s. 2d., or 8d. more than in 1911.

### *Ling.*

The total catch of ling in 1912 was 190,964 cwts., valued at £59,764, these figures representing a serious decline from those of 1911, which were respectively 246,389 cwts. and £70,379. Ling is one of the few species of round fish still caught principally by line, but during the year under review trawlers made a considerable encroachment upon the line-fishermen's position, the percentages referable to the two methods of fishing being respectively 38 and 62, as compared with 32 and 68 in 1911. This re-adjustment was almost entirely due to the diminished catch of the steam-liners, whose contribution dropped from 137,635 cwts. to 91,903 cwts. Sailing liners maintained their position fairly well, the catch from this source amounting to 27,115 cwts., as against 29,468 cwts. in 1911. The falling off in the landings did not extend to the West Coast, where the catch increased by 2558 cwts., or 8 per cent., owing to an improvement in the Mallaig spring fishing and the success of the Barra white-fishing season. The latter is prosecuted by the native fishermen only, and it is gratifying to record that the average earnings per boat were double those of 1911.

The decline in value was referable wholly to line-fishing, as the amount realised for the trawl catch (£19,025), notwithstanding a drop of 7341 cwts., or 9 per cent., in quantity, was slightly larger than in the preceding year.

### *Whitings.*

Whitings were apparently much more plentiful in 1912 than in 1911, as the catch of 173,992 cwts. represents an advance of over 30,000 cwts. upon the preceding year's figures. The quantity taken



by trawl was 154,782 cwts., and by line 19,210 cwts., as compared with 127,822 cwts. and 15,472 cwts. in 1911, both methods of capture thus showing improved results. The bulk of the increase in the trawl catch is referable to Aberdeen, while the addition to the line catch was due chiefly to the success which attended small-line fishing on the Kincardineshire coast.

The value of the catch was £70,151, as against £55,747 in 1911.

*Saithe, Torsk, and Conger Eels.*

Saithe also appear to have been much more abundant than in 1911, the total catch amounting to 286,882 cwts., valued at £48,936, which represents an increase of 70,582 cwts. in quantity and of £17,642 in value upon the figures for the preceding year. The increase, both in quantity and value, was almost wholly referable to trawling, and was accounted for, in roughly equal proportions, by the Aberdeen trawling fleet, which contributed half of the total catch, and foreign fishing vessels. The catch by line, which amounted to 75,203 cwts., divided between sailing-liners and steam-liners in the ratio of 3:2, remained practically stationary, an increase of 5000 cwts., or about 25 per cent., on the East Coast being neutralised by a corresponding decrease on the other sections of the coast. It will be observed that the catch in Orkney district dropped from 11,595 cwts. to 1619 cwts., a falling off which was due to the non-appearance in 1912 of the dense shoals of young saithe which, during the last year or two, have entered Kirkwall and Stromness harbours towards the close of the year, and which were taken in great quantities to be utilised as manure. The total for Orkney and Shetland was, however, kept well up to the preceding year's level by the increased quantities landed at Lerwick by the herring-drifters, who engaged in hand-line fishing while riding to their nets, and captured nearly 1000 tons of white-fish by this means during the season.

Of torsk only 16,503 cwts., valued at £5112, were landed, as compared with 22,032 cwts. and £6145 in 1911. This species is landed principally by steam liners, and the greater part of the decrease was referable to the Aberdeen fleet.

Conger eels are taken chiefly on the West Coast, Mallaig and Stornoway being the principal landing ports, and the catch in 1912 amounted to 36,863 cwts., valued at £11,554, these figures representing an increase in quantity of 2801 cwts., but a decrease in value of £526, as compared with the preceding year's returns. Steam liners, working chiefly from Mallaig, accounted for 72 per cent. of the catch and 65 per cent. of the value, and sailing liners for practically the whole of the remainder.

*Hake, Gurnards, Cat-fish, and Monks (Anglers).*

Gurnards, cat-fish, and monks are still not much esteemed as articles of food in this country, although there was an improved demand for all three in 1912, particularly for monks. The latter are in great request on the Continent, where they command high prices, in consequence of which 11,000 cwts. (about half the catch) were exported. The aggregate catch of the three species (taken almost

entirely by the Aberdeen and Granton trawling fleets) amounted to 61,248 cwts., as against 58,755 cwts. in 1911, the corresponding values being £14,652 and £12,478.

Hake receded slightly in price. The quantity landed in 1912 was 20,176 cwts., which realised £12,152, these figures being respectively 1188 cwts. and £1230 below the preceding year's returns.

(b) *FLAT FISH.*

As regards flat fish, the year's operations were not quite so satisfactory as in 1911, although this remark applies mainly to the quantity, as the value was second only to the record then set up. The total catch amounted to 202,042 cwts., which realised £322,613, these figures falling short of those of the preceding year by 15,829 cwts. and £1423 respectively. Both trawl and line and net caught fish were involved in the decrease in quantity, but the deficit in value occurred entirely in the latter, as the trawl catch, notwithstanding that it fell short of the preceding year's total by over 9000 cwts., realised nearly £2000 more. The quantity taken by trawl was 136,743 cwts., valued at £215,498, as against 145,954 cwts. and £213,541 in 1911, while the catch by lines and nets amounted to 65,299 cwts., which realised £107,115, as compared with 71,917 cwts. and £110,495 in the preceding year. The decline in the catch was not confined to any particular species, but was fairly general throughout the returns, megrims, witches, and brill being the only species to show improved results.

*Plaice.*

Plaice figured most prominently in the flat fish returns, and the total quantity of this species landed in 1912 was 50,238 cwts., valued at £69,697, as compared with 55,772 cwts. and £72,916 in 1911. About seven-ninths of the quantity and four-fifths of the value were attributable to trawled fish, the actual figures being respectively 35,646 cwts. and £56,180, or 5916 cwts. and £2063 less than in 1911. The catch by line, which amounted to 11,161 cwts., valued at £9730, improved to the extent of 2458 cwts. in quantity and £1594 in value, but against this has to be placed a decrease of over 2000 cwts. in the catch by nets, which amounted to 3431 cwts., valued at £3787.

*Halibut.*

In point of quantity, halibut follow very closely upon plaice, the catch of this species amounting to 49,696 cwts., valued at £107,795. This represents a decrease from the previous year's catch of 5682 cwts., but this deficiency, while serious enough in itself, was fully compensated for by the enhanced prices secured, the diminished catch having realised £70 more than in 1911. About 80 per cent. of all the halibut landed is taken by liners—principally steam vessels—and as the weather experienced on the distant western grounds from which the bulk of the supplies is drawn frequently compelled these vessels to abandon fishing operations and run for shelter, it is not a matter for surprise that practically the whole of the shrinkage occurred in the line catch.

*Lemon Soles.*

This species is taken almost exclusively by trawlers, and during the year under review these vessels landed all but 504 cwts. of the total catch of 40,818 cwts., which fell short of the preceding year's returns by 3633 cwts. The value, though also showing a falling off, did not decline to the same extent, the figures for 1912 and 1911 being respectively £83,413 and £84,011.

*Flounders.*

The flounder is not a deep-sea fish, and is therefore taken principally by the small boats, working lines and set nets, which ply their calling in the coastal waters. The catch in 1912 amounted to 9729 cwts., valued at £5742, as against 10,994 cwts., valued at £7306, in 1911. Of this quantity, 6763 cwts. were taken by lines and 2090 cwts. by nets, the residue, amounting to 876 cwts., being secured by the small boats which, under bye-laws made by the Board, are permitted to carry on a modified form of trawling known as flounder net fishing in the Firths of Forth and Clyde.

*Dabs, Megrims, and Witches.*

With the exception of brill, which is a negligible quantity in Scottish waters, witches and megrims were the only species of flat fish to yield better results than in 1911. The combined catch amounted to 36,664 cwts., valued at £37,712, (of which all but 2 cwts. was taken by trawlers), these figures representing increases of 3832 cwts. in quantity and £6299 in value upon the returns of the preceding year.

The supplies of dabs fell off considerably during 1912, only 10,601 cwts., valued at £3849, being landed, as compared with 13,760 cwts., valued at £4927, in 1911. As the figures indicate, dabs are the least valuable of all flat fish.

*Turbot and Brill.*

The decline which has for some years been observable in the yield of the comparatively rare and highly-prized turbot was continued during the year under review, the total catch of 4038 cwts. falling short of that of 1911 by 491 cwts., and the value, which was £13,845, by £1515. This decline, which has been in progress since 1909, although comparatively slight from year to year, goes on steadily, and in the aggregate is a considerable one, as the following table shows:—

Year.				Annual Catch.
1909	...	...	...	6,346 cwts.
1910	...	...	...	4,987 "
1911	...	...	...	4,529 "
1912	...	...	...	4,038 "

From these figures it will be seen that in the course of the last four years the annual delivery has decreased by 36 per cent.

The falling off in quantity was accompanied, as might be expected, by a slight rise in prices, the average price per cwt. working out at £3 8s. 7d., as against £3 7s. 10d. in the preceding year.

Of brill, 258 cwts., valued at £560, were landed, as against 155 cwts. and £378 in 1911.

(c) *SKATES, SQUIDS, AND UNCLASSIFIED FISH.*

The total quantity of skate marketed in 1912 was 144,010 cwts., of which 55 per cent. was landed by steam liners, and 36 per cent. by trawlers, the remainder (with the exception of 349 cwts. which were captured by set nets) being taken by sailing liners. This fish was evidently in better demand than in 1911, as, notwithstanding that the catch was 4000 cwts. less, the sum realised for them (£37,085) was greater by £2550. Fully 70 per cent. of the entire catch was landed at Aberdeen.

Of squids, 157 cwts., which realised £57, were landed, as against 234 cwts. and £73 in 1911. These molluscs at some seasons form an effective bait.

Unclassified fish, which comprise pollack, bream, mullet, etc., were landed to the amount of 10,693 cwts., which realised £2135, these figures showing practically no variations from those of the preceding year. About half of the unclassified fish landed is brought in by foreign trawlers.

SUMMARY SHOWING CATCH AND VALUE DURING PAST 10 YEARS.—The following table shows the catch and value of fish (exclusive of shell-fish) taken by the different methods of fishing since 1903 inclusive:—



YEARS.	(1) * HERRINGS, ETC.			(2) † ROUND-FISH.					
	Net.			Line and Net.			Trawl.		
	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.
1903	4,349,835	1,255,400	5/9	511,737	249,107	9/9	1,342,586	578,981	8/8
1904	5,488,456	1,028,160	3/9	628,898	279,428	8/10	1,520,949	618,687	8/1
1905	5,375,225	1,352,421	5/	619,194	274,754	8/10	1,563,247	729,822	9/4
1906	5,016,220	1,661,178	6/7	601,033	282,144	9/5	1,683,335	722,680	8/7
1907	6,321,211	1,814,330	5/9	529,962	262,817	9/11	1,874,411	754,849	8/1
1908	5,728,157	1,161,111	4/1	670,946	264,274	7/11	1,910,038	756,569	8/
1909	4,592,457	1,583,296	6/11	667,432	248,639	7/5	1,828,570	735,471	8/1
1910	5,741,057	1,609,048	5/7	712,099	272,159	7/8	1,898,014	875,478	9/3
1911	5,120,658	1,520,035	5/11	779,232	292,907	7/6	2,235,177	886,970	7/11
1912	5,255,307	1,922,204	7/4	777,883	302,090	7/9	2,197,014	1,002,400	9/2

YEARS.	(3) ‡ FLAT-FISH.						(4) § SKATES, SQUIDS, AND UNCLASSIFIED FISH.					
	Line and Net.			Trawl.			Net and Line.			Trawl.		
	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.
1903	82,059	64,591	15/9	165,085	232,053	28/1	8,807	2,257	5/2	58,699	18,898	6/5
1904	120,211	80,708	13/5	180,709	221,212	24/6	4,631	1,054	4/7	3,975	1,858	9/4
1905	111,041	72,961	13/2	177,472	216,443	24/1	5,419	895	3/4	4,712	1,852	8/-
1906	46,431	59,644	25/8	137,496	220,267	32/	61,388	18,887	6/2	47,466	12,793	5/5
1907	54,043	69,432	25/8	136,502	218,705	32/1	51,601	16,797	6/6	50,423	12,197	4/10
1908	71,072	93,423	26/3	128,843	203,491	31/7	82,666	21,382	5/2	53,530	11,912	4/5
1909	66,568	86,152	25/11	144,966	207,433	28/7	76,519	17,761	4/8	46,673	10,355	4/5
1910	64,847	95,178	29/4	145,937	215,297	29/6	89,621	21,026	4/8	58,080	12,201	4/2
1911	71,917	110,495	30/9	145,954	213,541	29/3	101,059	23,317	4/7	57,977	13,309	4/7
1912	65,299	107,115	32/10	136,743	215,498	31/6	95,925	24,982	5/3	58,935	14,295	4/10

TOTALS.											
YEARS.	(1) Total taken by Net and Line.			(2) Total taken by Trawl.			(3)    Total quantity and value of all Fish landed.				
	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.	Cwts.	£	Price per Cwt.		
1903	4,952,438	1,571,355	6/4	1,566,370	829,932	10/7	6,518,808	2,401,287	7/5		
1904	6,242,196	1,389,345	4/5	1,705,633	841,757	9/10	7,947,829	2,281,102	5/7		
1905	6,110,879	1,701,031	5/7	1,745,431	948,117	10/10	7,856,310	2,649,148	6/9		
1906	5,722,852	2,020,585	7/1	1,870,517	957,008	10/3	7,593,369	2,977,593	7/10		
1907	6,956,817	2,163,376	6/3	2,061,336	985,751	9/7	9,018,153	3,149,127	7/		
1908	6,552,841	1,540,190	4/8	2,092,411	971,972	9/3	8,645,252	2,512,162	5/10		
1909	5,402,976	1,935,848	7/2	2,020,209	953,259	9/5	7,423,185	2,889,107	7/9		
1910	6,607,624	1,997,411	6/1	2,102,031	1,102,976	10/6	8,709,655	3,100,387	7/1		
1911	6,072,866	1,946,754	6/5	2,439,108	1,113,820	9/2	8,511,974	3,060,574	7/2		
1912	6,194,414	2,356,391	7/7	2,392,692	1,232,193	10/4	8,587,106	3,588,584	8/4		

\* Include sprats, sparlings, and mackerel, returns of which are immaterial.

† Include cod, ling, torsk, saithe, whittings, haddocks, and conger-eels.

‡ Include flounders, plaice, brill, halibut, lemon soles, and turbot. Skate, which scientifically are not classed amongst flat-fish, were also included up to and including 1905. As this fish is of much smaller value than the other fish included, the average price of flat-fish was thus considerably lowered, but in 1906 this disturbing factor was removed by the inclusion of skate in another column.

§ Comprise principally sillocks, lythe, and bream up to and including 1905. From 1906 onwards skate are included.

|| Exclusive of shell-fish.

Note.—Round fish now comprise certain species of fish formerly included under "Unclassified Fish."



*(d) SHELL-FISH.*

The shell-fish fisheries were prosecuted with slightly better results than in 1911, the total value, which was £67,594, exceeding that of the preceding year by £239. Towards this total the East Coast contributed 37 per cent., Orkney and Shetland 8 per cent., and the West Coast 55 per cent., as compared with 39 per cent., 8 per cent., and 53 per cent. respectively in 1911, the West Coast thus having regained, at the expense of the East Coast, the ground lost in the preceding year.

*Lobsters.*

The number of these valuable crustaceans landed in 1912 was 646,566, or 4598 more than in 1911, although, owing to a slight fall in prices, the increase in value was not commensurate with that in quantity, being only £76, which brought the value for 1912 up to £32,177. The drop in prices was confined to the East Coast.

*Crabs.*

The crab-fishing was not so successful as in 1911, the catch of 21,361 hundreds being less than that of the preceding year by 2212 hundreds, while there was a corresponding decrease in the value, which amounted to £13,704, of £946. The greater part of the decrease in quantity, and the whole of the decrease in value, occurred on the East Coast.

*Oysters.*

There was a further increase in the output of oysters, which amounted to 13,278 hundreds, as against 11,540 hundreds in 1911. The increase was wholly referable to the Loch Ryan beds, which, under the careful attention bestowed upon them, are in a very flourishing condition, and in 1912 yielded a larger crop than ever before. The beds elsewhere in Scotland continue to diminish in productiveness, the output of the Loch Tarbert beds (8600) being less than half that of 1911, while from the once famous Firth of Forth beds no oysters at all were landed during the year under review. The value of the catch was £4669, or £594 more than in 1911.

*Mussels.*

The total quantity of mussels gathered in 1912 was 99,754 cwts., valued at £5334, as compared with 103,217 cwts. and £5066 in the preceding year. The falling off was largely confined to the beds in the neighbourhood of Findhorn and Cromarty, as the output in other districts was well maintained, that of the Clyde beds, indeed, showing a substantial increase. The decrease in quantity was accompanied by a rise in prices, with the result that the value (£5334) surpassed that of preceding year's catch by £268.

## Clams.

Practically the whole of the clams landed in Scotland are obtained in the Firth of Forth. In 1912 the total quantity landed was 8300 cwts., valued at £1236, as compared with 10,261 cwts., and £1536 in 1911.

## Unclassified Shell-fish.

Unclassified shell-fish consist chiefly of cockles, shrimps, and periwinkles. The total quantity gathered amounted to 40,528 cwts., as against 40,644 cwts. in 1911, the corresponding values being £10,474 and £9927.

SUMMARY SHOWING CATCH AND VALUE OF SHELL-FISH DURING PAST 10 YEARS.—The following table shows the quantity and value of the different kinds of shell-fish landed in Scotland since 1903, inclusive:—

Year.	Oysters.			Mussels.			Clams.		
	100's.	Value £	Price per 100.	Cwts.	Value £	Price per Cwt.	Cwts.	Value £	Price per Cwt.
1903	2,116	894	8/5	102,958	6,207	1/2	4,606	637	2/9
1904	2,501	937	7/6	92,142	6,046	1/2	6,993	944	2/8
1905	2,180	865	7/11	102,927	6,065	1/4	7,848	1,129	2/10
1906	3,896	1,568	8/	128,486	7,222	1/2	7,391	1,083	2/11
1907	10,203	3,456	6/9	126,453	6,334	1/2	7,197	953	2/8
1908	9,424	3,411	7/3	121,161	5,529	/11	8,633	1,264	2/11
1909	12,270	4,414	7/2	109,529	4,881	/11	7,404	1,143	3/1
1910	8,771	3,473	7/11	98,817	4,476	/11	9,947	1,501	3/-
1911	11,540	4,075	7/1	103,217	5,066	1/	10,261	1,536	3/-
1912	13,278	4,669	7/	99,754	5,334	1/1	8,300	1,236	3/

Year.	Lobsters.			Crabs.			Unclassified Shell-fish.			Total Value.
	100's.	Value £	Price per 100.	100's.	Value £	Price per 100.	Cwts.	Value £	Price per Cwt.	£
1903	7,055	34,567	98/-	25,657	16,314	12/9	55,443	14,979	5/5	73,598
1904	7,964	38,323	96/3	23,993	14,540	12/1	57,031	16,010	5/7	76,800.
1905	7,603	36,317	95/6	19,903	11,675	11/9	53,220	14,611	5/6	70,662
1906	7,316	35,957	98/4	20,916	13,182	12/7	45,594	13,310	5/10	72,322
1907	7,149	34,950	97/9	22,176	13,774	12/5	44,749	12,737	5/8	72,204
1908	6,890	33,748	98/-	27,367	16,515	12/1	49,263	13,595	5/6	74,062
1909	7,122	33,857	95/1	26,346	15,582	11/10	45,726	12,515	5/6	72,392
1910	6,977	34,795	99/9	22,071	13,831	12/6	46,540	11,634	5/-	69,760
1911	6,420	32,101	100/	23,573	14,650	12/5	40,644	9,927	4/11	67,355
1912	6,466	32,177	99/6	21,361	13,704	12/10	40,528	10,474	5/2	67,594

## OPERATIONS OF SCOTTISH FISHERMEN AT ENGLISH AND IRISH HERRING FISHERIES.

During the year under review 1099 vessels proceeded to the English herring fishing, as compared with 1039 in the preceding year, the fleet being composed of 797 steamers, 71 motor boats, and 231 sailing boats, as compared with 743 steamers, 63 motor boats, and 233 sailing boats in 1911, so that the increase was due entirely to the enterprise of the power-driven vessels. The Irish herring fishings also attracted a larger number of Scottish fishermen than in

the preceding year, 258 vessels having worked in Irish waters, as against 237 in 1911, the increase in this case also being due to the larger attendance of power-driven vessels, of which 249, as against 225, made the voyage during the year under review, whereas the number of sailing boats fell from 12 to 9. The results of their operations in the sister countries is shown in the following table:—

STATEMENT showing the Number of Scottish Fishing Boats employed, and the Quantity and Value of Herrings Landed by them, at the English and Irish Fishings.

Scottish District to which Boats belong.	Particulars of Fishing on Coasts of England.			Particulars of Fishing on Coasts of Ireland.			Total Cwts.	Total Value.
	Boats.	Cwts.	Value.	Boats.	Cwts.	Value.		
			£			£		£
Eyemouth -	43	96,436	22,008	7	6,356	2,089	102,792	24,097
Leith -	18	9,478	9,558	5	1,436	1,051	10,914	10,609
Anstruther -	122	210,710	67,080	-	-	-	210,710	67,080
Montrose -	52	7,902	9,307	-	-	-	7,902	9,307
Stonehaven -	6	1,978	507	-	-	-	1,978	507
Aberdeen -	45	106,953	29,650	-	-	-	106,953	29,650
Peterhead -	125	322,350	101,310	9	4,655	1,330	327,005	102,640
Fraserburgh	83	186,769	58,270	25	6,076	2,408	192,845	60,678
Banff -	101	219,912	66,208	60	36,802	7,673	256,714	73,881
Buckie -	343	814,400	232,914	83	22,750	10,960	837,150	243,874
Findhorn -	128	283,332	85,000	67	23,450	8,040	306,782	93,040
Helmsdale -	9	19,880	5,616	-	-	-	19,880	5,616
Wick -	20	39,974	11,670	2	1,505	257	41,479	11,927
Shetland -	4	9,299	2,797	-	-	-	9,299	2,797
Totals -	1,099	2,329,373	701,895	258	103,030	33,808	2,432,403	735,703

It is difficult to write otherwise than in superlatives of the results of the English fishing, so greatly did they transcend those of any former season. It was pointed out in the Report for 1911 that the results of that year's operations were by far the most successful of the series, yet, successful as they were, they were completely dwarfed by those of the season under review. The previous year's landings amounted to 1,798,824 cwts., and were the second highest ever recorded, having been exceeded only in 1907, when the catch was 1,892,105 cwts. The quantity landed in 1912 was 2,329,373 cwts., or 30 per cent. in excess of the preceding year's landings, and 23 per cent. more than the previous best. The financial results are even more remarkable. The value of the catch in 1911 was £549,342, a figure which constituted an easy record, as it represented an advance of more than 13 per cent. on the previous record; yet this figure was surpassed by no less than £152,553, or nearly 28 per cent., in 1912.

Agreeably with these results, the average earnings of the vessels engaged were the highest in the history of the fishing. Over the whole fleet they amounted to £639, as against £529 in 1911. A closer analysis shows that the steamers earned on an average £769, motor boats £450, and sailing boats £246, these figures exceeding those of the preceding year by £102, £137, and £100 respectively, and but for the fact that many boats, well satisfied with the results of the season's work, returned home before the close of the fishing, the difference might well have been larger.



The East Anglian season of 1912 was remarkable for its early start, premature close, and the unprecedentedly heavy landings during its currency. But still more astonishing was it that, no matter how heavy the landings, it seemed impossible to create a glut, so absorbent were the Continental markets. As a result, the unusual combination of heavy catches and high prices was maintained practically throughout the entire season, the only break occurring when stocks of barrels were for the time being completely exhausted.

The loss of gear, through fouling, and the sinking of nets owing to the weight of the fish, was again heavy, but these losses are almost inevitable in the East Anglian fishing, owing to the restricted area in which the fishing is carried on. In 1912, for example, it is calculated that the greater part of the enormous catch landed at Yarmouth was caught in an area of only from ten to fifteen miles square.

The fleet which proceeded to the Irish fishings comprised 244 steamers, 5 motor, and 9 sailing boats, as compared with 223 steamers, 2 motor, and 12 sailing boats in 1911. The total catch amounted to 103,030 cwts., which realised £33,808, as against 264,931 cwts. and £65,339 in the preceding year. It is apparent from these figures that the season was a poor one, and this was reflected in the earnings, which did little more than cover the expenses incurred. Strangely enough, the steamers were much less successful than either motor or sail boats, the average earnings of the three types of vessel amounting to £128, £221, and £170 respectively. In 1911 steamers earned on an average £281 and sailing boats £159.

#### FISH USED FRESH.

The estimated quantity of fish sold for consumption in Scotland in a fresh state, or despatched fresh from Scotland, during the year 1912, will be found under Appendix C.

The returns show that approximately 1,908,000 cwts., or 22 per cent. of the total quantity landed, were thus disposed of, the species which figure most prominently being, in order of importance, haddocks, cod, and herrings, which together constituted over 61 per cent. of the total supply. It is worthy of remark, as showing the extent to which the three species referred to predominate in the total catch, that although they bulk so largely in the fresh fish returns, the quantities consumed in that condition represent only 45 per cent., 33 per cent., and 6 per cent. respectively of the total quantities landed. Other prominent contributors were skates and rays (144,010 cwts.), whiting (74,767 cwts.), and ling (72,340 cwts.).

Practically all the flat-fish landed is consumed fresh (the only exceptions being witches and megrims), and the returns in their case are therefore practically identical with those in Appendix B (Fish Landed). For particulars of the quantities cured, reference should be made to Appendix D, No. I.

## FISH CURED.

## I. HERRINGS.

The prominent position occupied by the fish-curing industry in Scotland is due mainly to three factors—(1) the perishable nature of the commodity to be dealt with, (2) the remoteness of most of the places of origin from the consuming centres, and (3) the well-known enterprise of the Scottish curer, who is without exaggeration practically ubiquitous in so far as His Majesty's Dominions are concerned. The herring, although regarded as a plebeian fish, is one of the most delicate and tender fishes brought to our shores, and as a consequence it rapidly deteriorates after capture. It is therefore necessary to take immediate steps to provide for its preservation in order that it may reach the consumer in good condition, and, in so far as Scotland is concerned, the method in most common use is pickling. Roughly speaking, 90 per cent. of the herrings landed are cured in one way or another, but the great bulk of them is pickled. The circumstances attending the reaping of the main harvest of the sea are of more than ordinary interest. The principal season usually extends over two to two and a half months in the summer time, and the catches are landed all along the coast from Balta Sound on the north to North Shields on the south, thus rendering it difficult to purvey them to the best advantage. The obstacles to their rapid consumption compel those engaged in the industry to adopt curing as the best means of maintaining the demand and at the same time the market prices. The advent of the steam drifter has to some extent minimised the difficulties, as it is capable of taking the catches further afield and nearer the consuming centres.

The industry affords employment to a large floating population, consisting chiefly of women, and they are moved from place to place according to the exigencies of the fishing. The difficulty of dealing with a sudden influx of large numbers of workers is often a source of anxiety to the local authorities, as in many instances a normal population is suddenly increased tenfold, and the moral and sanitary responsibilities are correspondingly multiplied.

The large majority of the women workers hail from the northern centres, and they are engaged by the different curing firms for the season and removed from place to place in vessels specially chartered for the purpose.

It is estimated that the number of gutters and packers engaged in Scotland annually is from 13,000 to 14,000, of whom 8000 proceed to districts other than those in which they reside. A large number proceed to English ports for the autumn fishing. The amount of their earnings for a year frequently runs from £90,000 to £100,000.

In addition to the gutters and packers, there were 728 curers and 2479 coopers employed directly in the industry, and there were 8788 British persons and 5772 foreigners employed in importing curing material and wood for barrels, and exporting cured fish—chiefly to Europe. The most striking feature in these figures is the large increase in the number of British persons (1478) and the decline in the number of foreigners engaged (516).

The Scottish curer, however, is not content to confine his attentions to the Scottish fishery, but also takes a prominent



part in the conduct of the English and Irish herring fisheries, and to him very largely is due the marked development which has taken place of recent years in the fisheries of those countries.

The employment of steam and motor power in the propulsion of herring fishing vessels has effected a great deal of improvement in the condition of the fish landed, and has in great measure eliminated "overday's" or stale fish from the market, with the result that fish landed by these vessels—being the first to arrive and in good condition—generally fetch better prices than those landed by sailing vessels.

Hitherto the return of herrings cured (Appendix D, No. -I.) has shown them in a "sea-stick" state, *i.e.*, before they have "pined" or been allowed to settle down in the barrels, but this year and in future they will be given as "bung-packed," *i.e.*, finally ready for export. In order, however, to preserve the continuity of the returns, the figures showing "sea-stick" barrels will still be given in Appendix D, No. II.

The total quantity cured during the year was 1,752,145 barrels (Appendix D, No. I., p. 123), or 2521 barrels more than in the preceding year. On the East Coast 903,089 barrels were cured, in Orkney 187,343 barrels, in Shetland 488,515 barrels, and on the West Coast 173,198 barrels. Orkney district figures for the last five years are instructive and would appear to indicate that the central position of Stronsay as a landing place bids fair to make it a favourite rendezvous for the large fleet of vessels operating in the waters north of Wick. Going back to the year 1897, the records of the district are instructive as illustrating the sudden fluctuations which obtain in the herring fishery returns for any particular locality over a period of years.

In "sea-sticks" they are as follow:—

Year.	Barrels.	Year.	Barrels.
1897 - -	62,738	1905 - -	63,308
1898 - -	47,147	1906 - -	59,249
1899 - -	29,318	1907 - -	63,931
1900 - -	10,482	1908 - -	74,894
1901 - -	59,181	1909 - -	68,003
1902 - -	45,867	1910 - -	140,050
1903 - -	34,453	1911 - -	179,726
1904 - -	55,414	1912 - -	225,550

The last three years show immense strides over any previous record, and the prospects for the future are bright. The neighbouring district of Shetland exhibits almost equally striking results, as will be seen from the following figures:—

Year.	Barrels.*	Year.	Barrels.*
1900 - -	416,789	1906 - -	700,062
1901 - -	636,729	1907 - -	657,138
1902 - -	486,745	1908 - -	752,416
1903 - -	489,654	1909 - -	513,701
1904 - -	814,839	1910 - -	658,515
1905 - -	1,024,044	1911 - -	548,971
		1912 - -	555,036

\* "Sea-sticks,"

Of the total cure nearly 88 per cent. was gutted and pickled in barrels, the remainder being either converted into "reds," kippered, or tinned. The three latter are given in barrels in order to arrive at a total.

As regards pickled herrings, all the conditions were favourable, with the result that a most successful season was experienced by all concerned. The quality of the catch was good throughout, the weather was temperate, and the demand appeared to be inexhaustible. Consequently the price paid for the fresh as well as the cured fish was much above the average, that for the former showing an advance on that obtained in 1911 of 4s. 8d. per cran, while that for the cured fish advanced 8s. 4d. per barrel. At the close of the year the stock was practically cleared out. The comparatively high price of meat in Germany and the opening up of new markets in Siberia were largely accountable for these results.

On the East Coast proper, the districts contributing most largely to the returns were Fraserburgh (239,746 barrels), Peterhead (237,852), Wick (210,223), Eyemouth (82,405), and Aberdeen (80,861). The revival of the industry at Wick is noteworthy and gratifying, and there are distinct signs that it may yet regain the very high place it once occupied.

The contributions of Orkney and Shetland districts have already been referred to.

On the West Coast, three districts contributed almost the whole of the total, these being Stornoway (97,466 barrels), Greenock (31,599), and Barra (20,490).

The minor industries of kippering and tinning are largely dependent for their success on the price of the fresh fish—as when the price is high fewer herrings are purchased by, and indeed, available to the kipperers. The principal kippering centre on the East Coast is Eyemouth district, and on the West Coast Glasgow and Stornoway contribute practically the whole of the returns.

Tinning showed a slight advance on the previous year's figures, the principal centres of which are Aberdeen and Fraserburgh. Both fresh and kippered herrings are packed in tins holding from one to two lbs. In some cases the former are put up with tomato sauce; the tins are then soldered and placed in an oven or bath and cooked. After being taken out the tins are pricked to allow the compressed air to escape and soldered up again at once. While a tariff of 6s. per cwt. is imposed on tinned fish in Germany, fresh or iced herrings are admitted free.

The estimated value of the total herrings cured in 1912 (Appendix E, No. IV.) was £2,781,131, or £390,149 more than in 1911. The total is the highest on record, being £150,000 more than the next highest, in 1907, while the price per barrel is also above any previous return.

The following table shows the amount realised for cured herrings since 1898, and the average price per barrel obtained, viz. :—

[TABLE.]

Year.	East Coast.	Orkney and Shetland.	West Coast.	Total.	Average Price per Barrel.	
					s.	d.
1898	£905,447	£236,043	£240,656	£1,382,146	15	4
1899	835,956	507,512	370,450	1,713,918	29	2
1900	823,106	542,099	299,469	1,664,674	26	7
1901	739,905	686,965	277,920	1,704,790	21	3
1902	1,235,617	577,531	300,886	2,114,034	23	5
1903	1,005,328	510,023	272,073	1,787,424	22	1
1904	891,841	689,439	234,819	1,816,099	17	7 $\frac{1}{4}$
1905	939,684	041,855	247,875	2,229,414	21	1 $\frac{1}{2}$
1906	1,329,086	1,985,670	230,586	2,545,342	25	5 $\frac{3}{4}$
1907	1,641,934	730,652	257,091	2,629,677	20	4 $\frac{3}{4}$
1908	1,045,411	736,952	283,714	2,066,077	18	9 $\frac{1}{4}$
1909	1,358,802	728,917	281,336	2,369,055	25	0 $\frac{3}{4}$
1910	1,482,356	864,023	264,923	2,611,302	22	5
1911	1,320,988	827,960	242,034	2,390,982	23	4 $\frac{1}{2}$
1912	1,471,336	981,933	327,862	2,781,131	31	9

Appendix D, No. II., is interesting as showing the development of the industry during the last 102 years. The process of improvement has been gradual, but none the less forward, the figures having risen from 89,934 barrels\* in 1811 to 2,022,447 barrels\* in 1912.

## II. HERRINGS BRANDED.

The number of barrels of herrings branded last year was much below the average, owing to the fact that a very large proportion of the total catch was taken and cured before the first date (10th July) on which the official brand could be given (Appendix E, No. I.).

The early opening of the season in recent years is due in great measure to the advent of the steam drifter. This type of vessel can move about very rapidly, and is more independent as regards wind and weather than the sailing boat, with the result that if herrings are present anywhere in the North Sea they are located in a very short space of time. It has therefore been considered expedient to modify the branding regulations in such a way as to make them more appropriate to the changed conditions.

The principal changes effected are (1) the extension of the "Mattie" brand to admit herrings taken on or after 1st June, in place of 1st or 10th July as hitherto, and (2) the institution of a "Filling" brand, for "maturing" or "filling" herrings not less than 10 $\frac{1}{4}$  inches in length.

## III. CURED HERRINGS EXPORTED.

The total quantity of herrings exported from Scotland last year was 1,538,349 barrels, an increase over the previous year of 30,267 barrels (Appendix E, No. II.).

The demand all over Europe was keen throughout the season, and no time was lost in shipping off the cargoes after the herrings had been packed and cured. The principal features of the trade have been exhaustively set forth in the interesting report prepared by the Board's General Inspector of Fisheries, which has just been printed and circulated among the trade.

\* "Sea-sticks."



With the exception of 93,000 barrels exported to America, the whole of the export was shipped to Europe, Russia for the first time on record heading the list as the principal receiver of herrings. Hitherto German ports had been the principal media of distribution, but they have now been displaced, and this notwithstanding the fact that the duty imposed in Germany on cured herrings is 3s. a barrel, while in Russia it is 13s. a barrel.

Scottish herrings compete with those of their chief rivals—Norway and Holland—in the neutral markets on equal terms as regards tariffs. Fresh herrings are admitted into Germany free of duty.

The following table shows the export to Russia and Germany direct for the last ten years, viz. :—

Year.	Germany.	Russia.
1903 . . .	794,711	303,202
1904 . . .	1,095,683	304,443
1905 . . .	1,057,315	430,554
1906 . . .	1,025,886	424,200
1907 . . .	1,186,100	627,100
1908 . . .	1,001,645	616,497
1909 . . .	786,682	574,307
1910 . . .	982,360	732,345
1911 . . .	794,219	655,814
1912 . . .	719,012	750,187

The principal receiving ports in Russia were St. Petersburg (364,651 barrels), Libau (281,630), and Riga (86,415), while those in Germany were Stettin (231,694), Hamburg (194,050), Königsberg (178,574), and Dantzig (114,690).

The quantity of herrings in stock in Scotland at 31st December was only 787 barrels, so that the markets should be in a healthy condition and the prospects for 1913 most favourable.

IV. COD, LING, &C., CURED.

The return (Appendix D, No. I.) of these fish cured in various ways continues to show an upward tendency. It is given in a slightly different form from that of previous years, all the different kinds of fish preserved or cured being enumerated.

The following figures show the totals of the principal kinds cured for the last ten years, viz. :—

Year.	Cod.			Ling.		Tusk.		Saithe.		Haddocks.			Mack- erel.
	Cwts. Dried.	Cwts. Smoked	Barrels Pickled.	Cwts. Dried.	Cwts. Smoked	Cwts. Dried.	Cwts. Smoked	Cwts. Dried.	Cwts. Smoked	Cwts. Smoked	Cwts. Dried.	Cwts. Pickled.	Barrels Pickled
1903	48,626	23,396	1,290	10,137	5,000	1,601	—	15,272	—	381,156	—	—	—
1904	60,693	110,737	2,147	15,714	2,000	2,019	—	18,831	—	386,604	6,809	6,549	830
1905	65,709	154,353	1,200	21,102	15,290	3,395	1,378	19,406	15,960	340,433	11,709	—	1,473
1906	81,967	124,522	1,741	14,322	12,500	1,993	525	13,983	18,000	292,582	13,512	626	1,389
1907	60,766	123,985	1,256	12,748	10,400	1,035	1,220	10,753	19,200	365,797	12,110	—	1,390
1908	102,527	127,479	1,157	36,239	6,700	2,745	3,990	19,431	25,570	384,985	14,863	216	1,487
1909	95,508	109,537	1,920	32,282	3,320	1,768	3,150	15,387	30,150	279,054	5,172	—	2,153
1910	100,733	112,636	1,165	41,414	3,990	3,004	2,870	19,095	31,920	240,429	5,692	107	2,568
1911	121,465	113,888	1,252	45,266	2,980	5,370	1,100	21,738	32,350	251,128	9,057	—	2,738
1912	180,859	138,107	4,540	37,972	2,100	4,166	1,200	35,991	40,600	225,127	8,408	—	3,480



The estimated value of cod, ling, and other fish, other than herrings, cured or preserved was £836,121, or £81,883 more than the return for 1911. Smoked and "filleted" fish contributed £525,152 of the total, the remainder being made up of £301,149 in respect of dried fish, and £9820 in respect of pickled cod. (Appendix E, No. IV.)

As in previous years, Aberdeen District contributed the bulk of the return, 90 per cent. of the total being attributable to that district.

The total value of all fish cured in 1912 was £3,617,252, or £471,987 more than in the preceding year.

Towards this total—which is a fresh record—Aberdeen contributed £871,605, Shetland £703,770, Peterhead £403,317, Fraserburgh £366,639, Wick £364,004, Orkney £314,416, and Stornoway £182,848.

#### V. CURED COD, LING, ETC., EXPORTED.

The total export of dried cod, etc., from Scotland amounted to 169,812 cwts., being 13,900 cwts. greater than the previous year's export (Appendix E, No. II.) Of this total, 106,123 cwts. were exported to Europe, 45,929 cwts. to places out of Europe (chiefly America), and 17,760 cwts. to Ireland.

In Aberdeen district (p. 194 of Appendices) those engaged in the tinning industry have lately introduced a new system of putting up cutlets of cod and "fillets" in tins, and 2 lb. cutlets of cured-dried ling in pasteboard boxes and grease-proof paper parcels for the home and foreign markets.

Only 2600 barrels of cured fish roes (for use as bait in the French sardine fisheries) were exported from Aberdeen last year, the falling-off from the previous year's export being due to the laying up of trawlers during the coal strike, and to the failure of the French sardine fishery.

Nearly 3300 barrels of mackerel were cured and exported—two-thirds to America and one-third to Norway. The latter export was brought about by the visit of eight small Scandinavian craft—motor boats and sailing vessels—to Shetland, where their crews purchased from British fishermen and cured on board over 1000 boxes of fish. The Shetland curers also pickled a few hundred barrels of mackerel, and these also were exported.

#### PERSONS ENGAGED IN THE SCOTTISH SEA FISHERIES AND ALLIED INDUSTRIES.

The number of persons engaged in connection with the various branches of the Scottish fishing industry in 1912 was 90,040 (Appendix F, No. I.)—a net increase, as compared with 1911, of 888.

This increase was attributable mainly to the greater number of persons of British nationality who were engaged in the transport of cured fish and curing stock (of whom 1478, or 20 per cent., more were employed than in the preceding year), and resulted in the displacement from the same industry of 516 foreigners. The number of fishermen (38,759) was 133 more than in 1912, while other occupations which afforded increased employment were net-making (an industry which continues to make steady progress), carting, clerical work, and box-making and stave-cutting. All the other occupations enumerated showed decreases of varying degree, the greatest absolute falling off occurring amongst gutters and packers and boat-builders.

## BOAT-BUILDING.

Judged by the returns, the boat-building industry would appear to have been in a somewhat languishing condition in 1912, the total number of vessels constructed having fallen from 230 to 208, while, what is more significant still, the decrease occurred wholly in steam drifters and liners. Probably, however, the depression was more apparent than real, as it is understood that a number of these vessels were ordered, or actually under construction, at the close of the year, and the excellent financial results of the year's herring fishing operations will doubtless give a fillip to new construction in 1913.

The number of steam fishing vessels, other than trawlers, which left the slips in 1912 was 34, valued at £100,500, or an average of £2956 each, as against 67, valued at £185,390, or an average of £2767 each, in the preceding year. As is usually the case, the majority were built to the order of fishermen in Moray Firth districts, although 6 were intended for Yarmouth and Lowestoft.

New sailing boats numbered 140, or 9 more than last year, of which 69 were of the small third-class type (under 18 feet of keel), 47 were second-class boats of from 18 to 30 feet of keel, 22 were first-class boats over 30 but not more than 45 feet in length of keel, and only 2 were of the regulation type of first-class drifter of over 45 feet keel. A large number of the vessels between 18 and 45 feet keel were intended for the reception of auxiliary motor engines. The total value of the sailing boats was £13,963, as against £7393 in 1911, the comparatively large increase being due to the augmented number of medium-sized boats suitable for motor power which were constructed.

The number of steam trawlers launched during the year was 33, which cost £199,830, these figures differing little from last year's, which were respectively 32 and £191,900. The great majority of these vessels were built at Aberdeen, and included several craft for English owners, as well as one for a port so far distant as Buenos Ayres.

One sailing trawler was also built during the year at a cost of £54.

## BARREL-MAKING.

There was a big increase in the number of barrels manufactured in 1912, the output being 1,751,874 whole barrels and 862,199 half-barrels, as compared with 1,689,065 whole and 682,265 half-barrels in 1911. Coopers had perhaps the busiest and most lucrative season in their experience, as, owing to the phenomenally heavy landings in East Anglia, the stocks in hand after the early close of the Scottish fishing were speedily exhausted, and thereafter, until the close of the English fishing, it was only by dint of constant work at high pressure that they were able to cope with the demand from the English centres. On more than one occasion all available supplies of stave-wood were temporarily exhausted, and the keenness of the competition among curers for the barrels, without which their businesses would perforce have come to a standstill, may be gauged from the fact that towards the end of the season the price per barrel, which normally is 3s. 6d., had risen to 7s.

The heavy demand in the latter part of 1912 will react favourably upon the cooping trade in 1913, as, owing to the complete clearance of stocks, constant work during the winter and spring months is assured.

#### BASKET BRANDING.

Of quarter-cran baskets for the sale and purchase of fresh herrings, 7033 more were branded in 1912 than in 1911, the respective outputs being 50,087 and 43,054. Aberdeen and Leith are the principal centres of the basket-making industry, although the major part of the increased output was referable to the factory at Uig, in Skye, where the industry is now firmly established, and is rapidly growing, as a comparison of the figures for 1912 and 1911 (6102 and 1696 respectively) clearly indicates.

#### MARINE SUPERINTENDENCE.

During the year the superintendence of the Scottish sea fisheries was carried out by the five cruisers belonging to the Board, and by H.M.S. "Ringdove." The latter vessel was principally employed in the Moray Firth, where the presence of a naval vessel is desirable, in order to deal with foreign steam trawlers in waters outside the territorial limits, but during the great summer herring fishery she was detailed for special duty in the Shetland waters, where fishing vessels of many nationalities congregate. The vessels belonging to the Board were throughout the year engaged on general fishery duty all round the Scottish coast, including the outlying islands, their principal duty having been to endeavour to prevent illegal trawling and to detect offenders. The "Norna" was chiefly employed patrolling the coasts of Shetland, Orkney, and the North of Scotland; the "Freya" in the Moray Firth and on the Aberdeenshire coast; the "Brenda" from Girdleness to Berwick-on-Tweed, with special attention at certain seasons of the year to the Firth of Forth; the "Minna" on the West coast, from the Butt of Lewis to the Mull of Galloway; while the "Vigilant" was again principally engaged superintending the herring fishery within the Clyde area. From time to time, however, the cruisers relieved each other on the various stations as circumstances required. During the past year also, as usual, several calls were made on the larger vessels for special duty. In addition to the usual fishery superintendence, various other duties are performed by the cruisers, among which may be mentioned assistance by towage to numerous fishing craft requiring help, conveyance to port of shipwrecked crews, conveyance to hospital of injured seamen from foreign vessels, and sundry salvage assistance rendered to fishing and trading craft which were stranded or sunk. The coal strike in the spring of the year caused some inconvenience; but the cruisers were able to remain on duty most of the time, and the large bunker capacity of the "Norna" proved invaluable. The hulls, boilers, and machinery of the vessels were maintained in good order and condition. The accompanying table gives the details of the routine duties performed by the respective vessels. It will be noticed that the "Freya" again takes the most prominent place in the number of detections made of steam trawlers engaged in illegal fishing.



Number of	Name of Cruiser.				
	"Norna."	"Freya."	"Minna."	"Brenda."	"Vigilant"
Days at Sea, . . . . .	250	226	248	227	266
Knots Steamed, . . . . .	20,228	14,867	14,582	14,525	14,089
Trawlers Detected, . . . . .	8	14	0	1	3
Boats detained for } Lettering, etc., . . . . .	155	131	168	341	52
Boats Cautioned } Lights, etc., . . . . .	20	1	0	8	50
No. of Foreign Trawlers } observed working in } Prohibited Areas, . . . . .	37	35	0	7	2
No. of occasions on which } Foreign Trawlers } were observed work- } ing in Prohibited } Areas, . . . . .	58	77	0	8	2

TRAWLING IN PROHIBITED AREAS PREVENTION ACT,  
1909.

Reference is made above to the number of foreign trawlers observed working in prohibited areas, and some further statistics bearing on the matter may be of interest.

By the Herring Fishery (Scotland) Act of 1889, it was declared to be illegal to land or sell in Scotland any fish taken by trawlers in prohibited areas, and in 1909 the prohibition was extended to the whole of the United Kingdom by the Trawling in Prohibited Areas Prevention Act of that year.

The Moray Firth is the largest and most important area around Scotland coming within the operation of the Act, and the following table gives (1) particulars of the number of different foreign trawlers reported as having been observed working in the Firth, and (2) the number of separate occasions on which those trawlers were observed, for the last five years ending 19th October :—



NATIONALITY OF TRAWLERS.	BEFORE ACT IN OPERATION.				AFTER ACT IN OPERATION.					
	1907-8		1908-9		1909-10		1910-11		1911-12	
	Trawlers.	Occasions.	Trawlers.	Occasions.	Trawlers.	Occasions.	Trawlers.	Occasions.	Trawlers.	Occasions.
Norwegian, . . .	16	171	13	112	7	103	8	141	7	84
Swedish, . . .	1	3	—	—	1	1	1	8	8	28
Danish, . . .	8	25	16	99	9	60	1	10	2	14
Total Scandinavian,	25	199	29	211	17	164	10	159	17	126
German, . . .	1	2	1	1	5	12	16	33	28	55
Dutch, . . .	2	2	6	8	7	15	11	15	10	24
Belgian, . . .	8	27	10	19	9	26	3	6	5	18
Total, . . .	11	31	17	28	21	53	30	54	43	97
Grand Total, . . .	36	230	46	239	38	217	40	213	60	223

The trawling by vessels registered, though in most (if not all) cases not actually owned in Scandinavian countries, shows a considerable decrease, but the development of the trawling industry in Germany and Holland has to a large extent counter-balanced that decrease. The Dutch and Belgian trawlers, it may be mentioned, chiefly frequent the Firth during the early spring, when the cod enter it to spawn, and are seldom seen during the remainder of the year.

The Firth of Clyde is the only other prohibited area in Scottish waters which has been frequented by foreign trawlers, and trawling there practically ceased with the passing of the Act.

Fish landed in the United Kingdom in contravention of the Act are liable to confiscation by the Customs authorities, but only four cases of such confiscation have come under the notice of the Board.

Contemporaneously with the operation of the Act, the following is the result of the fishing in the Moray Firth by means of lines and cod nets, the latter a comparatively new method of fishing:—

*Amount and Value of White-fish landed at Moray Firth Ports .  
1909-1912.*

Year.	Cwts.	£
1909, . . .	114,129	54,029
1910, . . .	168,564	72,649
1911, . . .	169,809	79,243
1912, . . .	214,451	93,804

ENQUIRIES INTO COMPLAINTS OF DAMAGE TO  
BOATS OR GEAR.

Under the Sea Fisheries (Scotland) Amendment Act, 1885, the Board's officers are invested with quasi-judicial powers in cases of complaint by fishermen of damage to their boats or gear by other vessels, and during the year under review the number of such cases investigated was 32. This number was 9 less than in the preceding year, and is the lowest recorded since 1906.

Damage to, or loss of, nets formed the principal ground of complaint last year, 21 cases of this nature having been investigated, while the complaints of damage to lines numbered 9. The two remaining cases referred to damage sustained in collisions.

Seventeen of the complaints—9 of damage to lines and 8 of damage to nets—were lodged against trawlers, in three of which foreign trawlers were involved. The latter were alleged to have destroyed a number of nets belonging to the boats engaged in cod-net fishing in the Moray Firth during the spring, but in only one instance were the complainers successful in obtaining compensation, all efforts to obtain redress in the other two having proved abortive. Steam drifters were implicated in 10 cases—all of damage to nets—while in 4 cases H.M. warships were alleged to have been at fault. On the latter cases being investigated, however, it was found that three of the complaining boats had failed to exhibit the regulation lights, and were consequently at fault themselves; in the fourth case the Admiralty admitted liability and paid the claim at the amount assessed.

Settlements were arranged in 14 cases. Of the remaining cases a considerable number were allowed to drop, in some cases probably because the evidence was too slender to justify further procedure, while in others the damage was found to have been unavoidable, or to have been due to the negligence of the complainers.

The amount of damage assessed by the officers was about £303, of which about £71 was recovered.

## PROSECUTIONS FOR ILLEGAL TRAWLING.

The number of prosecutions for alleged illegal trawling undertaken in 1912 was 36, in 30 of which convictions were obtained. In 1911 the numbers were 53 and 49, but the averages for the two years are practically the same as those for the past ten years. The numbers fluctuate violently from year to year, so that it is only possible to ascertain whether their tendency is to increase or decrease by comparing the averages for series of years. Judged by this test, it would appear that illegal trawling is now effectively held in check.

Of the total number of cases, all involving the ordinary steam trawler, 1 was detected in the Firth of Clyde, 6 on the Lewis coasts (1 in Broadbay, and 5 in Loch Roag); 3 off Foula, 3 off Fair Isle, and 4 off the Shetland Isles; 11 in the Moray Firth—4 British and 7 foreign—and 7 on the coast between the Moray Firth and the Firth of Tay. No detection was made in the vicinity of the Firth of Forth in 1912, and no foreigner was detected outside of the Moray Firth.

The decrease in the numbers of cases as compared with those tried in 1911 is in great part referable to Fair Isle, where only 3 detections

were made, as compared with 14 in the previous year; to the Moray Firth, in which 12 British trawlers were found at work in 1911, but only 4 in 1912; and the Firth of Forth and vicinity, where the numbers of detections for the past three years has been 10, 3, and nil.

All the Lewis cases were detected by local fishermen, as were also the Foula cases, and two each of the cases referring to Fair Isle and Shetland. One other case detected by fishermen was that of a foreign trawler in the Moray Firth. Of the remaining cases, 20 were detected by the Board's cruisers and 2 by H.M.S. "Ringdove." In four of the cases put forward by fishermen the verdict was "not proven," and in a case reported by the "Ringdove" the result was the same; but with the exception of one case which was dropped, all the others resulted in convictions being obtained.

The total fines imposed amounted to £1530, much less than in many previous years, while the average of £51 also shows a decrease. It should, however, be noted that five of the six convictions obtained against the masters of foreign trawlers were, as explained in last year's Report, obtained under the Acts of 1883 and 1891, and were followed in every case by the forfeiture of all fish and gear found in the trawlers at the time of detection, the fish so forfeited being sold for a total of £361 14s. 5d. net. The total net proceeds from the sale of forfeited trawl gear during the year was £143 6s. 3d. The amount of fines paid was £597 6s. 8d., while imprisonment in periods for each offence of from 20 to 60 days was accepted as an alternative in 13 cases.

In only five cases throughout the year was the highest possible fine of £100 imposed. The highest average penalty was imposed in the Stornoway Sheriff Court; but as threats on the part of the trawlers of personal violence to the fishermen were alleged in connection with these cases, especially those relating to Loch Roag, the heavy penalties seem justified.

In the case of the "Croton," detected by a Lossiemouth crew, personal violence appears to have been attempted, but as the fishermen were unable to identify individual members of the trawler's crew the offenders could not be prosecuted.

Particulars of the prosecutions in 1912 for illegal trawling will be found in Appendix K, No. II., while a statement giving at a glance a summary of the prosecutions in each year since 1886 appears in Appendix K, No. IV.

#### PROSECUTIONS FOR OTHER OFFENCES.

Appendix K, No. III., gives particulars of prosecutions of the masters of fishing vessels for offences other than illegal trawling. Only two such prosecutions occurred in 1912, both of which were in connection with trawling cases, and related to failure to exhibit the required lights while trawling by night, the object, of course, being to evade observation while working within the prescribed waters. A conviction was obtained in each case and salutary penalties were imposed; and by reference to the preceding Appendix it will be seen that the act of illegal trawling was also established in both cases.



## CASUALTIES.

Particulars of the number of Scottish fishermen who lost their lives, and of the pecuniary loss sustained through casualties to boats and gear, in 1912, will be found in Appendix F, No. III.

Thirty-one fatalities occurred in the course of the year, this number representing a most gratifying decrease of 11 from the preceding year's total. About half of the deaths were the result of boats foundering at sea, and the majority of the remainder occurred through the men falling or being washed overboard in heavy weather. During the last ten years 466 fishermen have lost their lives through accidents at sea—a melancholy death-roll which brings home vividly the hazardous nature of their calling.

No less than 61 vessels were totally wrecked, as compared with 57 in 1911, and 27 in 1910, but, notwithstanding this increase, the pecuniary loss from this cause was fortunately considerably less than in the preceding year, the amounts being respectively £36,629 and £45,558. The total loss from all causes amounted to £133,363, or £7456 less than in 1911, but these figures do not include the losses sustained by the Scottish fleet at the English and Irish fishings, which, as usual, were heavy.

## WHALING.

The decline in the whale-fishery which was commented upon in the Report for 1911 continued during the year under review, the number of whales captured being only 440, as compared with 503 in 1911. This represents a decrease of 13 per cent., while if the comparison is made with the catch of 1909, the decline amounts to 40 per cent.

The following table gives particulars of the catch in Scottish waters in 1912:—

Species.	Male.	Female.	Total 1912.	Total 1911.
Finner ( <i>Balænoptera musculus</i> )	137	155	292	344
Sei ( <i>B. Borealis</i> ) - - -	61	47	108	130
Blue ( <i>B. Sibbaldii</i> ) - - -	9	3	12	5
Northcaper ( <i>Balæna Biscayensis</i> )	4	7	11	—
Humpback ( <i>Megaptera</i> ) - - -	—	—	—	4
Sperm ( <i>Physeter macrocephalus</i> ) -	8	1	9	18
Bottlenose ( <i>Hyperoodon</i> ) - - -	2	6	8	2
Total - - - -	221	219	440	503

Finner and sei whales again constituted the bulk of the catch, and it was in these species that the greater part of the decline occurred. The other species enumerated are erratic in their visits to Scottish waters, and the fluctuations within the limited numbers taken yearly are violent. Thus of the valuable Northcaper 11 were taken, as against none in 1911; while of sperm whales, of which 18 (an altogether exceptional number) were taken in 1911, only 9 were captured during the year under review.



A feature so unusual as to call for remark was that one of the sperm whales was a female, this being only the second occasion since whaling was started in Scottish waters that a female has been captured, although 55 males have been taken. All the Northcapers, and 9 of the 12 blue whales, were taken in Hebridean waters, and the returns again go to show that these species are rarely present together, the former seldom being seen after the end of June, while the latter do not as a rule appear until well on in July. The blue whale is the largest of all cetaceans, specimens having been captured of 100 feet in length, although the largest ever captured in Scottish waters fell short of that dimension by 15 feet.

In securing the catch, 11 steamers were employed, of an aggregate tonnage of 469 tons, and valued at £51,800. The number of steamers which the Companies may employ was fixed at 11 in 1908, and has not since been altered, but the tonnage and value, as compared with the returns for 1911, show decreases of 28 tons and £3750 respectively, due to changes among the vessels. The crews of these vessels numbered 110, no change having occurred since the previous year. During the currency of the season, which lasts from April to September, 391 voyages were made, or an average of 36 voyages per vessel, as against 406, and an average of 37, in 1911.

At the height of the season 281 men were employed at the factories on shore, of whom 138 were Norwegians and 143 British, as compared with 147 Norwegians and 148 British in the preceding year, the net decrease of 14 being attributable to the smaller number of whales which fell to be dealt with.

The foregoing statistics are summarised in the following table:—

	No. of Steamers.	Total Tonnage.	Total Value. £	Men engaged on Steamers.	Men employed in Factories (Maximum Number).		No. of Voyages made.
					Brit.	Foreign.	
1912	- 11	469	51,800	110	143	138	391
1911	- 11	497	55,550	110	148	147	406

The quantity and value of the various products into which the carcasses of the whales were converted is shown in the following table, together with the corresponding figures for 1911:—

Products.	1912.			1911.		
	Weight.	Value.	Average Price per Ton.	Weight.	Value.	Average Price per Ton.
	Tons.	£	£ s.	Tons.	£	£ s.
Oil, ...	2,060	33,396	16 4	2,111 $\frac{1}{3}$	40,191	19 1
Cattle Food, ...	335 $\frac{3}{4}$	2,555	7 12	317 $\frac{1}{2}$	2,392 $\frac{1}{2}$	7 11
Bonemeal, ...	218 $\frac{1}{2}$	863 $\frac{1}{2}$	3 19	180 $\frac{3}{4}$	704 $\frac{3}{4}$	3 18
Manure, ...	956 $\frac{7}{10}$	5,810	6 1	1,183 $\frac{2}{3}$	9,072	7 13
Whalebone, ...	44 $\frac{1}{2}$	3,562	80 1	44 $\frac{9}{10}$	2,321	51 14
Spermaceti, ...	102 $\frac{1}{2}$	2,462 $\frac{1}{2}$	24 3	175	4,250	24 6
		£48,649 $\frac{1}{2}$			£58,931 $\frac{1}{4}$	

Practically every particle of the carcase is turned to account. Oil is derived principally from the blubber, and is in demand by soap manufacturers; bonemeal, made from the calcinated skeleton, and guano, prepared from the entrails, furnish valuable manures; while the flesh, or whale-beef, after undergoing various processes, is converted into a nutritious food for cattle, resembling chocolate or snuff-coloured meal. Oil is, however, by far the most important product, and accounts for about two-thirds of the total value. As showing the relative values of various species of whales from an oil-producing point of view, it may be stated that the yield—from fully-grown animals—has been computed to be:—

From the "right" whale,	...	60—70 barrels.
"    Blue    "	...	50—60    "
"    Finner  "	...	35—40    "
"    Humpback "	...	25—35    "
"    Sei      "	...	5—10      "

The average value of each whale captured works out at £111, as against £117 in 1911.

## PART II.

### SALMON FISHERIES.

During the last season, 1912, the take of salmon throughout Scotland shows a decrease of 230 tons as compared with the take of the previous year. It is, however, 125 tons more than the last quinquennial average (for the period 1904 to 1908). The whole coast line has been divided as usual into four areas, and the weight of salmon carried by the railways and steamships show that 1990 tons of salmon were marketed in 1912. The totals for the four areas are:—Berwick to Cairnbulg Point, 950 tons; Cairnbulg to Cape Wrath, 679 tons; Cape Wrath to Glasgow, 226 tons; Glasgow to the limits of the Annan district in the Solway, 133 tons.

The following summary, in tabular form, gives the three last quinquennial averages—and we would draw attention to the rather serious decline shown in these—and the totals for the last four seasons:—

District.	Average, 1894 to 1898.				Average, 1899 to 1903.				Average, 1904 to 1908.				Year 1909.			
	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.
<i>a</i> Berwick to Cairnbulg Point,	1,206	18	1	1	839	1	2	9	887	8	2	24	1,018	10	3	19
<i>b</i> Cairnbulg Point to Cape Wrath,	900	17	3	6	737	10	3	17	608	13	1	19	705	18	-	22
<i>c</i> Cape Wrath to Glasgow, . . .	403	7	1	21	274	18	1	27	209	3	3	6	229	15	2	26
<i>d</i> Glasgow to the Border, . . .	260	3	2	6	183	6	1	19	160	9	3	15	231	13	3	6
Totals, . . .	2,771	7	-	6	2,034	17	1	16	1,865	15	3	8	2,185	18	2	17

District.	Year 1910.				Year 1911.				Year 1912.			
	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.	Tons.	Cwts.	Qrs.	Lbs.
<i>a</i> Berwick to Cairnbulg Point,	934	2	2	1	1,112	-	-	7	950	15	-	9
<i>b</i> Cairnbulg Point to Cape Wrath,	538	8	-	26	691	12	-	13	679	18	2	16
<i>c</i> Cape Wrath to Glasgow, . . .	207	8	-	21	209	17	1	15	226	4	3	21
<i>d</i> Glasgow to the Border, . . .	189	11	3	26	206	14	2	10	133	18	-	-
Totals, . . .	1,869	10	3	18	2,220	4	-	17	1,990	16	2	18

The chart of curves shows the annual fluctuations since the year 1891, the year in which detailed statements were first obtained. In the statement for last season, it is proper to mention, 41 tons 8 cwts. reported as having been carried by Messrs. MacBrayne's steamers, and railed from Mallaig and Oban, have been entered also from the respective railway stations. The reason for doing so is, that in the return furnished by the North British Railway Co. only 2 qrs. 23 lbs. are given as having been sent off from Mallaig. The total entered against Oban is 34 tons 3 cwts., which is in harmony with the figure usually reported as railed there.

It is impossible to secure absolute accuracy in making these returns, since we are not furnished with reports of the numbers of fish captured, and have to rely upon the courtesy of the railway and steamship companies for such information as we possess as to the weight of salmon carried.

The return as to weight of salmon is valuable, but in districts where grilse, rather than large adult salmon, form the bulk of the catch, a very inadequate view of the state of matters is given by returns of weight alone. It has been pointed out by the Inspector of Salmon Fisheries that in certain districts, notably in the Pentland Firth, 7 or 8 grilse are commonly taken for every salmon, and that, in good grilse years, 12 and even 13 grilse to every salmon may be taken. A great decline in the number of grilse may obtain without this being shown in any adequate way by the return of weight carried. A single 20 lb. salmon corresponds in weight to four or five grilse. Further, the decline in the total catch is first shown in the reduction of what Mr. Calderwood has described as the natural overplus of grilse, and the decline which is at present going on is chiefly a decline of grilse, the adolescent fish upon which future supplies very largely depend. In some districts grilse do not form a very important section of the catch, but here again it seems to be the case, as the Inspector has deduced from early records to which he has had access, that not only did salmon and grilse occur in vastly greater numbers in the early days, but the rate of decline is considerably greater in the case of grilse than of salmon; the relative proportions of young to adult fish change to the marked disadvantage of the grilse, and hence of the ultimate stock.

Apart from the general aspect of the question, the same difficulty in lack of statistics arises when consideration has to be given to any particular district. We still require more knowledge on the relation in which the stock of one river district may bear to that of another, but when questions such as, for instance, a proposed alteration of close time are being considered, it commonly happens that there is no information of a precise kind as to the actual condition of the stock of salmon in the district. The objection on the part of tenants of salmon fisheries is no doubt that a knowledge of the actual takes will possibly affect rentals; but if the collection of statistics were placed in our hands their confidential treatment would be assured. Referring to this need, the last Royal Commission on Salmon Fisheries state in their Report (1902 Report, p. 16):—"We think "that this is a case where the public advantage ought to outweigh "the private objection, and that powers should be given to the "Central Authority in England and Scotland respectively to obtain



CURVES SHOWING APPROXIMATELY THE TONS OF SALMON CARRIED BY  
SCOTTISH RAILWAYS & STEAMSHIPS SINCE 1894







“statistics by methods already adopted for other purposes of government, by which inquisitorial treatment and unnecessary publication are avoided.”

There are 107 Salmon Fishery Districts in Scotland, including the Orkney and Shetland, and the small and relatively numerous areas of the Hebridean Islands. Of these there are 40 provided with Boards for the regulation and protection of salmon fisheries. The salmon fishery rentals of these 40 districts may be stated as fully £145,000. The rentals of the five most important districts are given in the following table:—

YEAR.	Tweed.	Tay.	N. Esk.	Dee.	Spey.
	£	£	£	£	£
1900, . . .	..	22,548	6,510	18,989	..
1901, . . .	..	22,558	6,466	19,418	8,608
1902, . . .	..	22,663	6,494	19,455	8,146
1903, . . .	15,338	22,648	6,494	18,393	8,147
1904, . . .	15,439	23,099	6,494	19,078	7,396
1905, . . .	15,499	22,675	6,489	19,332	8,364
1906, . . .	15,499	22,838	6,485	19,068	8,740
1907, . . .	15,732	23,202	6,490	18,940	8,990
1908, . . .	16,093	23,508	6,474	18,893	9,243
1909, . . .	16,092	23,715	6,614	18,335	9,396
1910, . . .	16,130	23,861	7,620	17,883	9,139
1911, . . .	16,130	23,873	7,617	18,005	9,129
1912, . . .	16,050	23,586	7,597	17,990	10,304

In Mr. Calderwood's report will be found reference to the various changes which have taken place locally, in netting, introduction of salmon passes, alteration of close times, etc., and also to the inspections made by him in 1912. Reports from 34 District Fishery Boards have been received by the Inspector, and a digest of their contents will be found appended to Mr. Calderwood's report.

The work of research into the Life History of the Salmon has been carried on as usual, but only a limited sum, as hitherto, has been available for the purpose. The recaptures in 1912 have been less numerous than in recent years, and on this account further report on this subject is held over.

### PART III.

#### SCIENTIFIC INVESTIGATIONS.

During the year 1912 the scientific investigations in connection with the sea fisheries were carried on under the supervision of Dr. T. Wemyss Fulton, the Scientific Superintendent, as authorised by the Board, on the same general lines as in previous years. Most of the research work has been conducted at the Marine Laboratory at the Bay of Nigg, Aberdeen, and other inquiries in relation to the herring

and the herring fishery have been made in Lochfyne, in continuation of the observations of preceding years, and also in the Moray Firth with reference to the closing of the waters there to the operations of trawlers. The special statistics of the catches of the line-boats in the Moray Firth have been collected monthly through the Fishery Officers as before, and the old trawling stations of the s.s. "Garland" have been periodically examined with a beam trawl by the s.s. "Goldseeker," as frequently as circumstances allowed, and at dates corresponding as far as possible with those of former examinations, both with the beam-trawl and with the otter-trawl. A report on these investigations and on the statistics is in course of preparation.

The fish-cultural work at the Hatchery at the Bay of Nigg was continued in the Spring last year throughout the spawning season of the plaice, and is described below. A number of requests for plaice fry were received on behalf of the fishermen at various parts of the coast, and these were as far as possible complied with, consignments being forwarded to Peterhead, Fraserburgh, Sandhaven, and Roseheart, and the fry liberated off the coast in the neighbourhood of these localities. The fishermen at various places along the coast of Aberdeenshire have reported an improvement in the plaice fishery, which they attribute to the liberation of many millions of fry during the last eleven years, the total in the period aggregating nearly 220,000,000.

#### THE HATCHING OPERATIONS.

In the course of the year several consignments of live plaice, which had been caught in the Moray Firth, were brought to the Hatchery by the research steamer "Goldseeker," and about 800 plaice of both sexes were contained in the spawning-pond when the season began. Not a few of these were, however, small in size, and some of them did not reach maturity. As explained in former Reports, the adult plaice of both sexes are retained in a large tidal pond, into the water of which the eggs are shed, and where they are naturally fertilised during the spawning season. The floating eggs are collected at intervals by means of a fine net and transferred to the Dannevig hatching apparatus, hatching taking place in between three or four weeks, as a rule, in the early part of the season, in January and February, and about a week sooner in the latter part of the season, in April and May. The period, however, varies with the temperature. The larval fishes are retained in the apparatus until the yolk-sac is nearly absorbed, when they are transferred to the sea at suitable localities. The first collection of eggs was made on January 26, and the last on May 15, the greater number being obtained, as usual, in March and April. Last year, owing to severe frosts in February and the low temperature of the water in the spawning-pond, the maximum spawning was delayed until the early part of April, and a greater number of eggs were collected in that month than in March.

The estimated number of eggs taken from the pond during the season was 21,650,000, which was a considerable increase compared with the previous season, but less than in many former years. The loss in the process of hatching in the apparatus amounted to about 22 per cent., and the estimated number of fry obtained and liberated in the sea was 19,250,000. In the earlier part of the season the water

was not infrequently turbid, giving rise to difficulties in filtration, and in such circumstances the death-rate is increased.

The fry were distributed in eight lots, and, with the exception of small quantities at the beginning and end of the season, which were put away in the neighbourhood of Girdleness, all were taken to the north-east part of the coast and liberated in depths of from about twenty-four to thirty fathoms. The advantage of liberating the fry in this region depends upon the circumstance that the surface current passes southwards along the coast, carrying them to a certain extent with it.

Since the hatching of the plaice was begun at the Bay of Nigg, the estimated number of the eggs which have been dealt with amounts to about 409,000,000, and approximately 318,000,000 fry of the plaice have been put into the sea. During the first two years most of the fry were taken to Lochfyne and liberated there, in continuation of an experiment which was begun some years before with the view of ascertaining the effect of the liberation of the fry on the abundance of the older stages of the fish. The results of this experiment are fully described in the Twenty-sixth Annual Report. The output of the Hatchery in each year since 1900 is given in the subjoined Table:—

Year.	Eggs Collected.	Fry Liberated.
1900, - -	43,290,000	- 31,305,000
1901, - -	65,377,000	- 51,800,000
1902, - -	72,410,000	- 55,700,000
1903, - -	65,940,000	- 53,600,000
1904, - -	39,000,000	- 34,780,000
1905, - -	40,110,000	- 24,500,000
1906, - -	7,486,000	- 4,406,000
1907, - -	1,627,000	- 1,282,000
1908, - -	15,332,000	- 12,296,000
1909, - -	19,749,000	- 16,615,000
1910, - -	7,880,000	- 6,880,000
1911, - -	6,200,000	- 5,680,000
1912, - -	24,650,000	- 19,250,000
	<u>409,051,000</u>	<u>318,094,000</u>

Up to the year 1905 the adult plaice required for the breeding stock were obtained by the use of commercial trawlers; since then the fish have been secured by the s.s. "Goldseeker," mostly from the Moray Firth.

#### THE INVESTIGATIONS ON THE HERRING FISHERY IN LOCHFYNE.

As described in previous Reports, investigations into the failure of the herring fishery in Lochfyne have been carried on for a number of years, and they were continued in 1912. It is to be regretted that the failure of this once important fishery still is very marked. Statistics show that the mean annual catch of herrings in Lochfyne for the period 1863-1906 was 25,180 crans, and for the eighteen years up to 1906 it was 27,375 crans, while the greatest quantity taken in any single year was 56,820 crans in 1897. The figures for the last twelve years are as follow:—



Year.	Herrings Caught.	Year.	Herrings Caught.
1901, - -	29,117 crans.	1907, - -	3,914 crans.
1902, - -	26,339 „	1908, - -	4,070 „
1903, - -	21,198 „	1909, - -	3,684 „
1904, - -	7,827 „	1910, - -	10,405 „
1905, - -	4,672 „	1911, - -	4,672 „
1906, - -	5,258 „	1912, - -	2,192 „

The catch last year was less than half of the total for 1911, and much under that for 1910, and is, indeed, the lowest recorded in the statistics of the herring fishery in Lochfyne. These statistics go back to the year 1854, and they show that in the 'seventies, and in particular in 1873 and 1874, there was a somewhat similar failure of the fishing, but the depression did not last so long. At that time the annual catch gradually fell from nearly 40,000 crans in 1868 to 3648 crans in 1873, and then rose, somewhat unsteadily, to a high catch of 55,754 crans in 1882. For comparison with the above table the following figures showing the annual catches in the years referred to are of interest:—

Year.	Herrings Caught.	Year.	Herrings Caught.
1870, - -	26,909 crans.	1877, - -	19,618 crans.
1871, - -	13,515 „	1878, - -	8,890 „
1872, - -	9,057 „	1879, - -	21,045 „
1873, - -	3,648 „	1880, - -	22,768 „
1874, - -	4,806 „	1881, - -	32,943 „
1875, - -	13,546 „	1882, - -	55,754 „
1876, - -	22,836 „		

It is stated in the records that a feature of the fishing in the year 1875 was the great abundance of very small herrings in upper Lochfyne, and small herrings often predominated in the catches in the lower loch also.

It is not an easy matter to account for such variations in the movements of the shoals of herrings. Fluctuations in the herring fishery, especially in fjords or arms of the sea, are of not unfrequent occurrence on the coasts of other countries, and have been attributed to various causes, but none of the explanations put forward to account for them has been generally accepted. Variations in the physical conditions of the water, or in the quantity or kind of the minute floating organisms on which the herring mainly subsists, are believed by many to be the main cause, and since 1904 periodical observations have been carried on in Lochfyne with the object of ascertaining whether this is the correct explanation. At a number of places in the loch a series of temperature observations are made at different levels, and collections of the floating food secured, and it is proposed to continue these investigations until the herrings return to the loch in their former abundance, so that comparison may be instituted between the observations taken in the period of scarcity and those taken in the period of abundance.

## THE NATURAL HISTORY OF THE LOBSTER.

As stated in last Annual Report, the Board have had under consideration the question of what might be done to promote the lobster fishery and to increase our knowledge of the life-history of the lobster, and of the conditions under which lobster culture might be initiated with advantage. Attention was directed to the lobster pond at Cullipool, Luing, near Oban, which belongs to the West Highland Lobster Company, and in which from 15,000 to 20,000 lobsters can be accommodated. The manager kindly granted facilities for observations and investigations to be made in connection with the lobsters at the pond, and Dr. H. C. Williamson visited Luing for the purpose in June and November. On the former occasion attention was mainly directed to a comparison of the lobsters from different localities as regards their individual size. In order to test the practical question whether or not the lobsters lost weight during their confinement in the pond, forty-one were weighed and marked and then replaced in the enclosure. Some of these were got later, and the results were somewhat discrepant. Four of them had lost from a quarter of an ounce to four ounces in weight after a confinement of from four to seven months, while two, which had been between six and seven months in the pond, had gained one and four ounces in weight respectively. In November efforts were made to capture small lobsters in the inshore waters in specially-constructed traps, but without success.

## THE DISEASES AND ABNORMALITIES OF FISHES.

An investigation on various diseases and abnormalities in fish has been made by Dr. H. C. Williamson, and a report on the subject, illustrated with eight plates, is now in the press. Particular attention was given to a parasitic disease of the haddock, occasionally discovered when the fish is split in preparation for curing, and giving rise to the condition known as "spotted haddock," and also to tumours, including carcinomatous growths.

## THE INFLUENCE OF TEMPERATURE ON THE DEVELOPMENT OF THE EGGS OF THE HERRING.

It was stated in the Report for last year that, by request of the New Zealand Government, experiments had been made, by Dr. H. C. Williamson, at the Marine Laboratory on the retarding of the development of the eggs of the herring by the maintenance of a low temperature, with the view of transporting to the Dominion the fertilised eggs. In the latter part of the year the New Zealand Government sent over the Curator of the Marine Laboratory at Portobello, N.Z., to take charge of a trial shipment, and a consignment of herring eggs, together with a large number of small turbot, lobsters, and crabs, left for the Dominion in January last.

## FISHERY INVESTIGATIONS IN THE NORTH SEA.

Since the 1st April 1910, when the international investigations in the North Sea were placed under the direct control of the Board, the

fishery investigations of the research steamer, the "Goldseeker," have been under Dr. Fulton's charge, and have been carried out according to a monthly scheme submitted to and approved by the Board. The following is a summary of the work done last year:—

#### *Trawling Investigations.*

In the course of the year 183 hauls of the trawl-net were made, 73 of which were with the large otter-trawl, 80 with the beam-trawl, for quantitative purposes, and 30 with the herring-trawl. The latter are specially referred to below. The hauls with the beam-trawl were made at the old trawling stations of the "Garland" (the vessel formerly employed in the Board's scientific work), in the Firth of Forth and the Moray Firth. As the investigations of the "Garland" were begun in 1886, and carried on till 1896 in the Firth of Forth and until 1900 in the Moray Firth, comparison of the results as to the relative abundance of the various species of the food-fishes in the two periods will be of value. The trawling with the large otter-trawl was made on various grounds, including the Great Fisher Bank, the Witch Grounds, the grounds off Aberdeen, and a special series of hauls were made in June and July at Fair Isle.

The great majority of the fishes caught were individually measured, the sizes being recorded, while large numbers were opened and the condition of the reproductive organs ascertained and noted. Observations were also made in many cases on the contents of the stomachs, in order to determine the food upon which the fishes subsist. These records are being worked up for publication.

#### *Marking Experiments.*

The number of food-fishes which were "marked" and liberated in 1912 by the "Goldseeker" amounted to 2360, viz., 2165 plaice, 133 witches, 60 cod, and 2 haddocks. Efforts were chiefly concentrated on the plaice, which is the most immediately important species in connection with the international fishery investigations, as well as the fish which is best adapted for this particular method of research. Of the plaice which were "marked" and set free 593, or 27 per cent., were recaptured in the course of the year and up to the end of February, 1913. This agrees very well with the proportion recaptured in the previous year, viz., 26 per cent. None of the marked witches were recaptured, the fishes probably dying subsequently from the handling, though special care was taken, and those marked were obtained in comparatively shallow water at the mouth of the Firth of Forth. Five of the sixty marked cod were caught later, or 8 per cent.

The mark consists of a numbered vulcanite disc, attached to the fish by means of a silver wire, or of a vulcanite stud, also numbered, fixed in position by a rubber ring. The main objects of the marking experiments are to ascertain (1) the migrations of the fish; (2) their growth; (3) the intensity with which fishing operations are carried on. For any of these purposes it is necessary that some time should elapse in order that a sufficient amount of evidence may be accumulated for the formulation of satisfactory conclusions. There are some results,



however, to which attention may be meanwhile directed. The first relates to the migrations of the plaice. The numbers of plaice which were marked and liberated and the number and percentage of those recaptured in the three years are as follows:—

	Marked.	Recaptured.	Percentage.
1910, - - -	1,915	964	50·3
1911, - - -	1,733	777	44·8
1912, - - -	2,165	593	27·4

Some of those liberated in 1910 are still being obtained, as well as those of 1911. With reference to the movements of the marked fish, it has been found that a distinction must be drawn between those which have not reached the size of maturity and those which exceed that size. The former do not, as a rule, move far from their ordinary feeding grounds, and they do not appear to take any very definite direction in such movements as they make; the latter, on the other hand, undertake often long journeys before the spawning season, and in the great majority of instances they move along the East Coast in a northerly direction, that is to say, against the prevailing current. This migration is doubtless to compensate for the southerly drift of the floating eggs and larval fishes from the localities where spawning takes place. Thus many of the adult plaice which had been marked and liberated in the Firth of Forth, or eastwards of the Isle of May, were recaptured off the coast of Aberdeenshire, or in the Moray Firth; many of those liberated off the coast of Aberdeenshire were again taken in the Moray Firth, or on the North or West Coast, having in such cases traversed the Pentland Firth. In like manner many of the adult plaice liberated in the Moray Firth, or in the vicinity of Fair Isle, were recaptured at the Orkney Isles, or on the North Coast and the West Coast. It is interesting to have determined that the plaice in the Moray Firth are recruited to such an extent from the grounds off the East Coast, and even from the Firth of Forth, by the migration thither of the adult fish. It is also fairly certain, though direct experimental proof is lacking, and indeed could hardly be obtained, that the grounds to the south are recruited by supplies of floating eggs and larval plaice carried from the Moray Firth by the prevailing current.

Another point on which the marking experiments throw light is the intensity of fishing operations. There is no reason to suppose that the marked plaice are either more liable or less liable to capture than those which exist beside them in their natural condition on the grounds. The proportion of the marked fish recaptured thus offers an indication of the proportion of the natural stock which is within a given time removed by fishing operations, and that proportion is larger than might be expected. Thus of 100 plaice liberated at a locality twenty miles east of the Isle of May in March last year, 61, or 61 per cent., have been already recaptured. Of 300 marked and set free in the Firth of Forth, 102, or 34 per cent., have since been caught again—76, or 26 per cent., outside the limits of the Firth, and the remainder, or 8 per cent., within it.

#### *Sea Currents and Fishery Problems.*

As above indicated, the part taken by marine currents in distributing the floating eggs and larvæ of the food-fishes is of importance,



as is also their relation to the migrations of the fishes themselves, and to the movements of the floating organisms upon which young fishes of most species, and certain fishes at all stages, as the herring, chiefly subsist. An investigation was therefore undertaken, and is now proceeding, to ascertain as completely as possible the course, direction, and rate of the currents along the East Coast and throughout the North Sea, the results of which will be afterwards considered in connection with the hydrographic observations. For this purpose a large number of sealed bottles, suitably weighted and containing numbered cards for identification, have been thrown into the sea from the "Goldseeker" at various places along the coast. Of 2920 drift-bottles of this kind which have been put into the sea, 717, or over 24 per cent., have been returned, partly from our own coast and largely from the Continent, more especially from Norway, some of them having been found as far as the North Cape, and even farther east in Barents Sea and the Murman coast.

#### *Trawling for Herrings.*

Investigations on the action of the new herring-trawl, particularly with respect to the capture of immature herrings and white-fish, were made by the "Goldseeker" at the Dogger Bank and neighbourhood, and also in localities in the inshore waters where small herrings were known to abound in greater or less numbers. Experiments have also been initiated with similar cod-ends, but with different meshes from those used by the commercial vessels, with the object of determining the most satisfactory mesh that might be employed. These investigations are being continued, and it is believed that the results, combined with those obtained on board the vessels when trawling for herrings for commercial purposes, will go far to show how the question can best be dealt with internationally.

#### *Experiments on the Relation between the Size of the Mesh of Trawl Nets and the Fishes Captured.*

As mentioned in last Report, investigations are being carried on to determine as precisely as possible the relation between the size of the mesh of trawl nets and the numbers and sizes of the fishes taken, the method adopted being to use cod-ends of different mesh, with a loose bag of fine-meshed netting outside, in which the fishes which escape through the apertures of the cod-end of the trawl are retained, so that the catches in the two nets may be compared. A report on these experiments is in course of preparation.

#### *Observations on the Eggs and Larvæ of Food Fishes.*

In addition to the information acquired by ascertaining the condition of the reproductive organs of a large proportion of the fishes taken in the trawl-net, numerous collections were made by special nets of the floating eggs and the young of the food fishes at different seasons and at various localities. By this means information is obtained as to the spawning season and spawning regions of the fishes, and as to the distribution of the eggs. Observations of this kind were made all along the East Coast and eastwards at intervals

as far as the Great Fisher Bank, as well as in the Moray Firth and the Firth of Forth. One area in which it was specially desired to make a series of such observations during the early part of the year, when most of the food fishes spawn, was that lying between the Moray Firth and the south-east of the Shetlands. It is in this region that the great volume of Atlantic water enters the North Sea, carrying with it supplies of the eggs and young of food fishes. The condition of the weather, however, again prevented a complete series of observations being obtained.

Reports on various branches of the investigations referred to are in course of preparation. The records on board the "Goldseeker" were very efficiently kept by Mr. George H. Smith, and later by Mr. J. H. Chaloner, and Captain Murray spared no effort to have the work promptly carried out.

We have the honour to be,

Sir, your most obedient Servants,

ANGUS SUTHERLAND, *Chairman.*

T. B. MORISON, *Deputy-Chairman.*

D'ARCY W. THOMPSON.

BREADALBANE.

JAMES ARCHIBALD.

JOHN H. IRVIN.

MALCOLM SMITH.

DAVID T. JONES, *Secretary.*



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## APPENDIX A.—

MEANS OF CAPTURE.—RETURN for the year 1912, showing the Number, Tonnage, (excluding Beam and Otter Trawl Vessels); the Number of Persons

No.	DISTRICTS.	FISHING BOATS AND VESSELS (excluding					
		Number.	Tonnage.	Value of Boats.	Value of Nets.		
					Drift.	Seine.	Other Kinds.
		£	£	£	£	£	
<b>EAST COAST.</b>							
1	Eymouth, . . . . .	101	1,598	10,009	8,560	...	8,560
2	Leith, . . . . .	349	4,278	31,540	19,765	607	1,933
3	Anstruther, . . . . .	421	8,723	53,605	37,430	...	494
4	Montrose, . . . . .	333	3,527	15,560	9,259	...	322
5	Stonehaven, . . . . .	83	798	2,997	2,560	...	8
6	Aberdeen, . . . . .	81	493	1,931	920	...	920
7	Peterhead, . . . . .	190	2,075	17,884	9,920	...	9,920
8	Fraserburgh, . . . . .	510	8,823	68,316	49,020	...	73
9	Banff, . . . . .	319	4,870	27,957	16,923	...	1,521
10	Buckie, . . . . .	422	11,658	104,929	39,060	...	2,440
11	Findhorn, . . . . .	188	3,970	32,350	23,280	...	2,760
12	Cromarty, . . . . .	157	1,339	8,669	5,940	16	120
13	Helmsdale, . . . . .	116	663	3,542	2,700	...	260
14	Lybster, . . . . .	37	266	709	587	...	587
15	Wick, . . . . .	309	2,958	14,024	10,787	...	493
	East Coast Totals } carried down, }	3,616	56,039	394,022	236,711	623	10,424
<b>Orkney and Shetland.</b>							
16	Orkney, . . . . .	336	2,091	7,000	3,953	...	3,953
17	Shetland, . . . . .	576	7,278	38,967	20,760	...	20,760
	Orkney and Shetland } Totals carried down, }	912	9,369	45,967	24,713	...	24,713
<b>WEST COAST.</b>							
18	Stornoway, . . . . .	568	4,411	20,526	13,505	...	13,505
19	Barra, . . . . .	295	1,781	6,515	5,221	...	5,221
20	Loch Broom, . . . . .	341	1,386	7,746	7,770	...	1,691
21	Loch Carron and Skye, . . . . .	442	1,441	5,047	5,424	...	400
22	Fort-William, . . . . .	221	566	1,997	1,240	41	171
23	Campbeltown, . . . . .	236	601	3,531	557	1,100	113
24	Inveraray, . . . . .	191	762	3,859	729	1,175	91
25	Rothesay, . . . . .	91	186	1,074	512	50	250
26	Greenock, . . . . .	155	333	1,203	273	130	104
27	Ballantrae, . . . . .	263	575	2,984	740	105	1,418
	West Coast Totals } carried down, }	2,803	12,042	54,482	35,971	2,601	4,238
<b>Totals brought down.</b>							
	East Coast, . . . . .	3,616	56,039	394,022	236,711	623	10,424
	Orkney and Shetland, . . . . .	912	9,369	45,967	24,713	...	24,713
	West Coast, . . . . .	2,803	12,042	54,482	35,971	2,601	4,238
	Grand Totals for 1912, . . . . .	7,331	77,450	494,471	297,395	3,224	14,662
	Grand Totals for 1911, . . . . .	7,776	83,054	558,913	325,182	4,876	14,257
	Increase in 1912, . . . . .	...	...	...	...	...	405
	Decrease in 1912, . . . . .	445	5,604	64,442	27,787	1,652	29,034

No. I.

and Value of the Sailing Boats and Vessels engaged in the Scottish Fishing Industry employed thereon ; and the Extent and Value of Fishing Gear.

Beam and Otter Trawl Vessels), PROPELLED BY SAILS OR OARS.							No.
Value of Lines.				Value of Bush and Buoy Ropes and Stoppers.	Value of Crab and Lobster Creels.	Grand Total.	
Great.	Small.	Hand.	Total.				
£	£	£	£	£	£	£	
56	872	20	948	3,467	525	23,509	1
600	3,583	66	4,249	6,538	951	65,583	2
823	824	38	1,685	11,478	536	105,228	3
702	2,592	19	3,313	3,922	654	33,030	4
446	1,128	28	1,602	1,270	289	8,726	5
12	840	11	863	900	66	4,680	6
707	3,516	63	4,286	4,983	174	37,247	7
688	1,702	139	2,529	15,750	644	136,332	8
720	2,592	37	3,349	6,070	166	55,986	9
2,816	2,908	40	5,764	14,787	71	167,051	10
390	1,820	22	2,232	7,275	36	67,933	11
15	800	14	829	1,794	51	17,419	12
144	1,275	66	1,485	1,061	117	9,165	13
16	146	29	191	122	32	1,641	14
132	556	245	933	4,293	1,435	31,965	15
8,267	25,154	837	34,258	83,710	5,747	765,495	
66	121	90	277	1,932	1,526	14,688	16
1,352	1,550	218	3,120	13,204	33	76,084	17
1,418	1,671	308	3,397	15,136	1,559	90,772	
3,600	1,395	102	5,097	3,423	975	43,526	18
439	217	40	696	1,829	331	15,092	19
409	876	126	1,411	1,118	349	20,585	20
567	184	53	804	615	695	12,985	21
274	119	23	416	414	480	4,759	22
190	162	17	369	361	631	6,662	23
38	168	...	206	326	280	6,666	24
...	116	6	122	158	40	2,206	25
32	110	22	164	73	93	2,040	26
320	468	16	804	214	317	6,582	27
5,869	3,815	405	10,089	8,531	5,191	121,103	
8,267	25,154	837	34,258	83,710	5,747	765,495	
1,418	1,671	308	3,397	15,136	1,559	90,772	
5,869	3,815	405	10,089	8,531	5,191	121,103	
15,554	30,640	1,550	47,744	107,377	12,497	977,370	
17,536	30,607	1,574	49,717	116,174	12,681	1,081,800	
1,982	33	24	1,973	8,797	184	104,430	



## APPENDIX A.—

MEANS OF CAPTURE.—RETURN for the year 1912, showing the Number, Tonnage, (excluding Beam and Otter Trawl Vessels); the Number of Persons

No.	DISTRICTS.	FISHING BOATS AND VESSELS (excluding			
		Area of Netting.			
		Drift.	Seine.	Other kinds.	Total.
	<b>EAST COAST.</b>	Sq. Yds.	Sq. Yds.	Sq. Yds.	Sq. Yds.
1	Eyemouth, . . . .	2,568,000	...	...	2,568,000
2	Leith, . . . . .	5,868,600	96,230	360,800	6,325,630
3	Anstruther, . . . .	12,909,000	...	225,920	13,134,920
4	Montrose, . . . . .	3,174,000	...	50,166	3,224,166
5	Stonehaven, . . . .	768,000	...	4,800	772,800
6	Aberdeen, . . . . .	276,000	...	...	276,000
7	Peterhead, . . . . .	2,976,000	...	...	2,976,000
8	Fraserburgh, . . . .	14,706,000	...	35,040	14,741,040
9	Banff, . . . . .	5,802,000	...	248,760	6,050,760
10	Buckie, . . . . .	13,392,000	...	2,049,600	15,441,600
11	Findhorn, . . . . .	7,566,000	...	1,169,200	8,725,200
12	Cromarty, . . . . .	1,782,000	2,520	9,600	1,794,120
13	Helmsdale, . . . . .	1,092,000	...	46,800	1,138,800
14	Lybster, . . . . .	233,550	...	...	233,550
15	Wick, . . . . .	3,738,800	...	232,480	3,971,280
	East Coast Totals } carried down, . }	76,856,950	98,800	4,423,166	81,378,916
	<b>Orkney and Shetland.</b>				
16	Orkney, . . . . .	1,581,000	...	...	1,581,000
17	Shetland, . . . . .	6,228,000	...	...	6,228,000
	Orkney and Shetland } Totals carried down, }	7,809,000	...	...	7,809,000
	<b>WEST COAST.</b>				
18	Stornoway, . . . . .	5,464,200	...	...	5,464,200
19	Barra, . . . . .	1,793,400	...	...	1,793,400
20	Loch Broom, . . . . .	2,703,000	...	592,000	3,295,000
21	Loch Carron and Skye, .	1,807,500	...	144,000	1,951,500
22	Fort-William, . . . .	538,000	7,200	49,600	594,800
23	Campbeltown, . . . . .	267,000	220,000	52,200	539,200
24	Inveraray, . . . . .	243,000	253,500	27,300	523,800
25	Rothesay, . . . . .	213,000	18,000	125,000	356,000
26	Greenock, . . . . .	112,320	39,000	34,000	185,320
27	Ballantrae, . . . . .	370,000	17,500	225,630	613,130
	West Coast Totals } carried down, . }	13,511,420	560,200	1,249,730	15,321,350
	<b>Totals brought down.</b>				
	East Coast, . . . . .	76,856,950	98,800	4,423,166	81,378,916
	Orkney and Shetland, .	7,809,000	...	...	7,809,000
	West Coast, . . . . .	13,511,420	560,200	1,249,730	15,321,350
	Grand Totals for 1912, .	98,177,370	659,000	5,672,896	104,509,266
	Grand Totals for 1911, .	107,774,440	1,016,160	5,072,246	113,862,846
	Increase in 1912, . . .	9,597,070	357,160	600,650	...
	Decrease in 1912, . . .	...	...	...	9,353,580

No. I.—continued.

and Value of the Sailing Boats and Vessels engaged in the Scottish Fishing Industry employed thereon; and the Extent and Value of Fishing Gear.—(Contd.)

Length of Lines.				Bush and Buoy Ropes and Stoppers.	Crab and Lobster Creels.	Number of Fishermen and Boys.			No.
Great.	Small.	Hand.	Total.			Resident.	Non-Resident.	Total.	
Yards.	Yards.	Yards.	Yards.	Yards.	No.				
44,400	523,200	16,000	583,600	201,340	3,000	267	...	267	1
380,000	1,777,560	25,160	2,182,720	420,000	6,335	1,451	...	1,451	2
592,200	501,600	30,540	1,124,340	648,125	4,280	939	414	1,353	3
497,400	1,967,200	21,420	2,486,020	307,790	4,360	728	...	728	4
299,840	616,320	23,760	939,920	188,400	1,920	219	...	219	5
7,680	515,520	6,540	529,740	61,360	330	200	...	200	6
395,640	1,868,720	49,920	2,314,280	226,440	870	556	67	623	7
490,560	1,196,640	132,600	1,819,800	863,000	3,220	1,394	74	1,468	8
432,000	1,555,200	44,640	2,031,840	444,744	1,106	791	4	795	9
1,689,600	1,744,800	47,880	3,482,280	903,960	470	1,192	...	1,192	10
234,000	1,310,400	25,440	1,569,840	331,740	240	771	9	780	11
11,520	576,000	7,440	594,960	175,930	340	636	...	636	12
115,200	734,400	31,440	881,040	127,890	780	332	...	332	13
11,520	83,520	23,040	118,080	13,010	160	140	...	140	14
84,960	246,960	194,640	526,560	282,500	5,740	964	20	984	15
5,286,520	15,218,040	680,460	21,185,020	5,196,229	33,151	10,580	588	11,168	
38,160	87,120	86,160	211,440	219,750	10,170	885	...	885	16
1,297,200	1,239,840	173,160	2,710,200	656,100	220	2,419	...	2,419	17
1,335,360	1,326,960	259,320	2,921,640	875,850	10,390	3,304	...	3,304	
2,527,320	1,285,440	80,160	3,892,920	463,848	7,797	4,074	...	4,074	18
210,000	67,540	33,360	310,900	329,224	5,540	975	...	975	19
204,500	398,000	85,320	687,820	122,280	4,839	1,005	...	1,005	20
434,380	147,360	63,900	646,140	144,825	4,630	1,070	...	1,070	21
131,280	55,080	19,140	205,500	49,152	2,400	468	...	468	22
98,800	54,480	13,340	206,620	118,630	3,210	360	...	360	23
22,500	105,840	...	128,340	100,290	1,600	313	...	313	24
...	58,000	3,300	61,300	19,440	400	87	...	87	25
23,040	100,000	15,100	138,140	16,372	620	151	...	151	26
230,400	280,800	5,340	516,540	96,958	2,060	331	...	331	27
3,882,720	2,592,540	318,960	6,794,220	1,461,019	33,096	8,834	...	8,834	
5,286,520	15,218,040	680,460	21,185,020	5,196,229	33,151	10,580	588	11,168	
1,335,360	1,326,960	259,320	2,921,640	875,850	10,390	3,304	...	3,304	
3,882,720	2,592,540	318,960	6,794,220	1,461,019	33,096	8,834	...	8,834	
10,504,600	19,137,540	1,258,740	30,900,880	7,533,098	76,637	22,718	588	23,306	
11,704,856	19,259,640	1,264,140	32,228,636	8,108,339	77,763	23,948	621	24,569	
1,200,256	122,100	5,400	1,327,756	575,241	1,126	1,230	33	1,263	







## APPENDIX A.—

MEANS OF CAPTURE.—RETURN for the Year 1912, showing the Number, (excluding Beam and Otter Trawl Vessels); the Number of Persons

No.	DISTRICT.	STEAM FISHING VESSELS, SCOTTISH						
		Number.	Tonnage.	Value of Vessels.	Value of Fishing Gear.			Total.
					Nets.	Lines.	Bush & Buoy Ropes.	
	<b>EAST COAST.</b>			£	£	£	£	
1	Eymouth, . . . . .	7	169	10,430	1,960	109	739	13,238
2	Leith, . . . . .	9	201	19,700	2,000	840	940	23,480
3	Anstruther, . . . . .	57	1,218	112,190	15,403	3,888	5,220	136,701
4	Montrose, . . . . .	8	228	18,000	2,660	400	980	22,040
5	Stonehaven, . . . . .	...	...	...	...	...	...	...
6	Aberdeen, . . . . .	67	2,372	140,780	16,200	6,800	7,050	170,830
7	Peterhead, . . . . .	118	3,002	318,600	30,820	5,452	16,792	371,664
8	Fraserburgh, . . . . .	64	1,744	153,000	19,200	470	4,510	182,180
9	Banff, . . . . .	86	2,555	187,600	13,547	630	4,818	206,595
10	Buckie, . . . . .	257	6,700	642,500	77,220	1,416	18,504	739,640
11	Findhorn, . . . . .	119	3,549	291,550	36,900	750	9,520	338,720
12	Cromarty, . . . . .	...	...	...	...	...	...	...
13	Helmsdale, . . . . .	9	210	11,940	2,430	360	864	15,594
14	Lybster, . . . . .	...	...	...	...	...	...	...
15	Wick, . . . . .	13	281	26,000	3,120	85	1,053	30,253
	East Coast Totals } carried down, }	814	22,229	1,937,290	221,460	21,200	70,990	2,250,940
	<b>Orkney and Shetland.</b>							
16	Orkney, . . . . .	...	...	...	...	...	...	...
17	Shetland, . . . . .	4	106	6,150	800	112	400	7,462
	Orkney and Shetland } Totals carried down, }	4	106	6,150	800	112	400	7,462
	<b>WEST COAST.</b>							
18	Stornoway, . . . . .	1	37	1,000	160	33	53	1,246
19	Barra, . . . . .	...	...	...	...	...	...	...
20	Loch Broom, . . . . .	...	...	...	...	...	...	...
21	Loch Carron and Skye, . . . . .	...	...	...	...	...	...	...
22	Fort William, . . . . .	...	...	...	...	...	...	...
23	Campbeltown, . . . . .	...	...	...	...	...	...	...
24	Inveraray, . . . . .	...	...	...	...	...	...	...
25	Rothesay, . . . . .	...	...	...	...	...	...	...
26	Greenock, . . . . .	5	98	8,700	360	17	137	9,214
27	Ballantrae, . . . . .	...	...	...	...	...	...	...
	West Coast Totals } carried down, }	6	135	9,700	520	50	190	10,460
	<b>Totals brought down.</b>							
	East Coast, . . . . .	814	22,229	1,937,290	221,460	21,200	70,990	2,250,940
	Orkney and Shetland, . . . . .	4	106	6,150	800	112	400	7,462
	West Coast, . . . . .	6	135	9,700	520	50	190	10,460
	Grand Totals for 1912, . . . . .	824	22,470	1,953,140	222,780	21,362	71,580	2,268,862
	Grand Totals for 1911, . . . . .	794	21,146	1,903,298	210,929	22,799	69,473	2,206,499
	Increase in 1912, . . . . .	30	1,324	49,842	11,851	...	2,107	62,363
	Decrease in 1912, . . . . .	...	...	...	...	1,437	...	...

No. I.—continued.

Tonnage, and Value of the Steam Vessels engaged in the Scottish Fishing Industry employed thereon; and the Extent and Value of Fishing Gear.

(excluding Beam and Otter Trawl Vessels).						DISTRICTS.	No.
Extent of Fishing Gear.			Number of Fishermen and Boys.				
Nets.	Lines.	Bush and Buoy Ropes.	Resident	Non-Resident	Total.		
Sq. Yards.	Yards.	Yards.					
						<b>EAST COAST.</b>	
588,000	86,200	25,860	49	...	49	Eyemouth.	1
600,000	420,000	35,000	81	...	81	Leith.	2
5,280,000	2,381,400	241,040	389	110	499	Anstruther.	3
756,000	307,200	38,000	72	...	72	Montrose.	4
...	...	...	...	...	...	Stonehaven.	5
4,860,000	3,264,000	320,800	605	...	605	Aberdeen.	6
9,223,200	3,115,800	693,840	590	236	826	Peterhead.	7
5,760,000	350,000	281,600	384	...	384	Fraserburgh.	8
4,644,000	378,000	353,920	603	...	603	Banff.	9
23,230,800	755,200	1,017,720	1,734	244	1,978	Buckie.	10
12,106,500	450,000	471,240	853	111	964	Findhorn.	11
...	...	...	...	...	...	Cromarty.	12
702,000	144,000	33,120	30	...	30	Helmsdale.	13
...	...	...	...	...	...	Lybster.	14
1,014,000	51,000	51,220	106	10	116	Wick.	15
68,764,500	11,702,800	3,563,360	5,496	711	6,207	{ East Coast Totals carried down.	
						<b>Orkney and Shetland.</b>	
240,000	75,360	17,350	36	...	36	Orkney	16
...	...	...	...	...	...	Shetland.	17
240,000	75,360	17,350	36	...	36	{ Orkney and Shetland Totals carried down.	
						<b>WEST COAST.</b>	
48,000	10,560	3,440	8	...	8	Stornoway.	18
...	...	...	...	...	...	Barra.	19
...	...	...	...	...	...	Loch Broom.	20
...	...	...	...	...	...	Loch Carron and Skye.	21
...	...	...	...	...	...	Fort-William.	22
...	...	...	...	...	...	Campbeltown.	23
...	...	...	...	...	...	Inveraray.	24
...	...	...	...	...	...	Rothesay.	25
108,000	14,340	5,320	39	...	39	Greenock.	26
...	...	...	...	...	...	Ballantrae.	27
156,000	24,900	8,760	47	...	47	{ West Coast Totals carried down.	
						<b>Totals brought down.</b>	
68,764,500	11,702,800	3,563,360	5,496	711	6,207	East Coast.	
240,000	75,360	17,350	36	...	36	Orkney and Shetland.	
156,000	24,900	8,760	47	...	47	West Coast.	
69,160,500	11,803,060	3,589,470	5,579	711	6,290	Grand Totals for 1912.	
65,543,300	12,161,350	3,373,340	5,363	701	6,064	Grand Totals for 1911.	
3,617,200	...	216,130	216	10	226	Increase in 1912.	
...	358,290	...	...	...	...	Decrease in 1912.	



No. I.—continued.

Tonnage, and Value of the Steam Vessels engaged in the Scottish Fishing Industry employed thereon; and the Extent and Value of Fishing Gear.—(Contd.)

Extent of Fishing Gear.			Number of Fishermen and Boys.			DISTRICTS.	No.
Nets.	Lines.	Bush and Buoy Ropes.	Resident	Non-Resident	Total.		
Sq. Yards.	Yards.	Yards.					
...	...	...	...	...	...	<b>EAST COAST.</b>	
...	...	...	...	...	...	Eyemouth.	1
...	...	...	...	...	...	Leith.	2
258,000	132,300	13,200	21	6	27	Anstruther.	3
...	...	...	...	...	...	Montrose.	4
...	...	...	...	...	...	Stonehaven.	5
...	134,400	3,000	27	...	27	Aberdeen.	6
156,000	2,400	9,360	6	12	18	Peterhead.	7
...	...	...	...	...	...	Fraserburgh.	8
...	...	...	...	...	...	Banff.	9
...	...	...	...	...	...	Buckie.	10
...	...	...	...	...	...	Findhorn.	11
...	...	...	...	...	...	Cromarty.	12
...	...	...	...	...	...	Helmsdale.	13
...	...	...	...	...	...	Lybster.	14
3,120,000	...	164,000	...	360	360	Wick.	15
3,564,000	269,100	189,560	54	378	432	{ East Coast Totals carried down.	
						<b>Orkney and Shetland.</b>	
...	...	...	...	...	...	Orkney.	16
21,160,000	345,600	1,440,000	...	3,600	3,600	Shetland.	17
21,160,000	345,600	1,440,000	...	3,600	3,600	{ Orkney and Shetland Totals carried down.	
						<b>WEST COAST.</b>	
...	...	...	...	...	...	Stornoway.	18
...	...	...	...	...	...	Barra.	19
...	...	...	...	...	...	Loch Broom.	20
...	...	...	...	...	...	Loch Carron and Skye.	21
...	...	...	...	...	...	Fort-William.	22
...	...	...	...	...	...	Campbeltown.	23
...	...	...	...	...	...	Inveraray.	24
...	...	...	...	...	...	Rothesay.	25
...	...	...	...	...	...	Grenock.	26
...	...	...	...	...	...	Ballantrae.	27
...	...	...	...	...	...	{ West Coast Totals carried down.	
						<b>Totals brought down.</b>	
3,564,000	269,100	189,560	54	378	432	East Coast.	
21,160,000	345,600	1,440,000	...	3,600	3,600	Orkney and Shetland.	
...	...	...	...	...	...	West Coast.	
24,724,000	614,700	1,629,560	54	3,978	4,032	Grand Totals for 1912.	
22,530,000	500,700	1,452,880	48	3,548	3,596	Grand Totals for 1911.	
2,194,000	114,000	176,680	6	430	436	Increase in 1912.	
...	...	...	...	...	...	Decrease in 1912.	



## APPENDIX A.—

MEANS OF CAPTURE.—RETURN for the Year 1912, showing the Number, (excluding Beam and Otter Trawl Vessels); the Number of Persons

No.	DISTRICTS.	TOTALS OF STEAM FISHING VESSELS						
		Number.	Tonnage.	Value of Vessels.	Value of Fishing Gear.			Total.
					Nets.	Lines.	Bush & Buoy Ropes.	
	<b>EAST COAST.</b>			£	£	£	£	£
1	Eyemouth, . . . . .	7	169	10,430	1,960	109	739	13,238
2	Leith, . . . . .	9	201	19,700	2,000	840	940	23,480
3	Anstruther, . . . . .	60	1,234	115,190	16,243	4,104	5,505	141,042
4	Montrose, . . . . .	8	228	18,000	2,660	400	980	22,040
5	Stonehaven, . . . . .	...	...	...	...	...	...	...
6	Aberdeen, . . . . .	70	2,516	149,980	16,200	7,150	7,080	180,410
7	Peterhead, . . . . .	120	3,050	323,000	31,340	5,454	17,070	376,864
8	Fraserburgh, . . . . .	64	1,744	158,000	19,200	470	4,510	182,180
9	Banff, . . . . .	86	2,555	187,600	13,547	630	4,818	206,595
10	Buckie, . . . . .	257	6,700	642,500	77,220	1,416	18,504	739,640
11	Findhorn, . . . . .	119	3,549	291,550	36,900	750	9,520	338,720
12	Cromarty, . . . . .	...	...	...	...	...	...	...
13	Helmsdale, . . . . .	9	210	11,940	2,430	360	864	15,594
14	Lybster, . . . . .	...	...	...	...	...	...	...
15	Wick, . . . . .	53	1,161	106,000	12,720	85	4,293	123,098
	East Coast Totals } carried down, }	862	23,317	2,033,890	232,420	21,768	74,823	2,362,901
	<b>Orkney and Shetland.</b>							
16	Orkney, . . . . .	...	...	...	...	...	...	...
17	Shetland, . . . . .	364	12,706	798,150	81,800	472	36,400	916,822
	Orkney and Shetland } Totals carried down, }	364	12,706	798,150	81,800	472	36,400	916,822
	<b>WEST COAST.</b>							
18	Stornoway, . . . . .	1	37	1,000	160	33	53	1,246
19	Barra, . . . . .	...	...	...	...	...	...	...
20	Loch Broom, . . . . .	...	...	...	...	...	...	...
21	Loch Carron and Skye, . . . . .	...	...	...	...	...	...	...
22	Fort-William, . . . . .	...	...	...	...	...	...	...
23	Campbeltown, . . . . .	...	...	...	...	...	...	...
24	Inveraray, . . . . .	...	...	...	...	...	...	...
25	Rothesay, . . . . .	...	...	...	...	...	...	...
26	Greenock, . . . . .	5	98	8,700	360	17	137	9,214
27	Ballantrae, . . . . .	...	...	...	...	...	...	...
	West Coast Totals } carried down, }	6	135	9,700	520	50	190	10,460
	<b>Totals brought down.</b>							
	East Coast, . . . . .	862	23,317	2,033,890	232,420	21,768	74,823	2,362,901
	Orkney and Shetland, . . . . .	364	12,706	798,150	81,800	472	36,400	916,822
	West Coast, . . . . .	6	135	9,700	520	50	190	10,460
	Grand Totals for 1912, . . . . .	1,232	36,158	2,841,740	314,740	22,290	111,413	3,290,183
	Grand Totals for 1911, . . . . .	1,158	33,354	2,637,398	293,189	23,539	104,859	3,058,985
	Increase in 1912, . . . . .	74	2,804	204,342	21,551	...	6,554	231,198
	Decrease in 1912, . . . . .	...	...	...	...	1,249	...	...

No. I.—continued.

Tonnage, and Value of the Steam Vessels engaged in the Scottish Fishing Industry employed thereon; and the Extent and Value of Fishing Gear.—(Contd.)

(excluding Beam and Otter Trawl Vessels).						DISTRICTS.	No.
Extent of Fishing Gear.			Number of Fishermen and Boys.				
Nets.	Lines.	Bush and Buoy Ropes.	Resident	Non-Resident	Total.		
Sq. Yards.	Yards.	Yards.					
<b>EAST COAST.</b>							
588,000	86,200	25,860	49	...	49	Eymouth.	1
600,000	420,000	35,000	81	...	81	Leith.	2
5,568,000	2,513,700	254,240	410	116	526	Anstruther.	3
756,000	307,200	38,000	72	...	72	Montrose.	4
...	...	...	...	...	...	Stonehaven.	5
4,860,000	3,398,400	323,800	632	...	632	Aberdeen.	6
9,379,200	3,118,200	703,200	596	248	844	Peterhead.	7
5,760,000	350,000	281,600	384	...	384	Fraserburgh.	8
4,644,000	378,000	353,920	603	...	603	Banf.	9
23,230,800	755,200	1,017,720	1,734	244	1,978	Buckie.	10
12,106,500	450,000	471,240	853	111	964	Findhorn.	11
...	...	...	...	...	...	Cromarty.	12
702,000	144,000	33,120	30	...	30	Helmsdale.	13
...	...	...	...	...	...	Lybster.	14
4,134,000	51,000	215,220	106	370	476	Wick.	15
72,328,500	11,971,900	3,752,920	5,550	1,089	6,639	{ East Coast Totals carried down.	
<b>Orkney and Shetland.</b>							
21,400,000	420,960	1,457,350	36	3,600	3,636	Orkney.	16
...	...	...	...	...	...	Shetland.	17
21,400,000	420,960	1,457,350	36	3,600	3,636	{ Orkney and Shetland Totals carried down.	
<b>WEST COAST.</b>							
48,000	10,560	3,440	8	...	8	Stornoway.	18
...	...	...	...	...	...	Barra.	19
...	...	...	...	...	...	Loch Broom.	20
...	...	...	...	...	...	Loch Carron and Skye.	21
...	...	...	...	...	...	Fort-William.	22
...	...	...	...	...	...	Campbeltown.	23
...	...	...	...	...	...	Inveraray.	24
...	...	...	...	...	...	Rothsay.	25
108,000	14,340	5,320	39	...	39	Greenock.	26
...	...	...	...	...	...	Ballantrae.	27
156,000	24,900	8,760	47	...	47	{ West Coast Totals carried down.	
<b>Totals brought down.</b>							
72,328,500	11,971,900	3,752,920	5,550	1,089	6,639	East Coast.	
21,400,000	420,960	1,457,350	36	3,600	3,636	Orkney and Shetland.	
156,000	24,900	8,760	47	...	47	West Coast.	
93,884,500	12,417,760	5,219,030	5,633	4,689	10,322	Grand Totals for 1912.	
88,073,300	12,662,050	4,826,220	5,411	4,249	9,660	Grand Totals for 1911.	
5,811,200	...	392,810	222	440	662	Increase in 1912.	
...	244,290	...	...	...	...	Decrease in 1912.	

## APPENDIX A.—

MEANS OF CAPTURE.—RETURN for the Year 1912, showing the Number, Tonnage, and distinguishing those propelled by Steam from those propelled by Sails or Oars ;

No.	DISTRICTS.	BEAM AND OTTER									
		Scottish (Propelled by Steam).						Other than (Propelled			
		Number.	Tonnage.	Value.			Men Engaged.	Number.	Tonnage.	Value.	
				Vessels.	Fishing Gear.	Total.				Vessels.	Fishing Gear.
		£	£	£			£	£			
<b>EAST COAST.</b>											
1	Eyemouth, . . . . .	..	..	..	..	..	..	..	..	..	
2	Leith, . . . . .	55	2,401	212,990	8,300	221,290	508	5	153	15,400	800
3	Anstruther, . . . . .	..	..	..	..	..	..	..	..	..	..
4	Montrose, . . . . .	9	380	22,500	1,170	23,670	72	..	..	..	..
5	Stonehaven, . . . . .	..	..	..	..	..	..	..	..	..	..
6	Aberdeen, . . . . .	217	12,530	920,700	30,380	951,080	2,136	13	601	39,500	1,820
7	Peterhead, . . . . .	6	412	25,200	840	26,040	54	..	..	..	..
8	Fraserburgh, . . . . .	1	57	2,100	150	2,250	9	..	..	..	..
9	Banff, . . . . .	..	..	..	..	..	..	..	..	..	..
10	Buckie, . . . . .	..	..	..	..	..	..	..	..	..	..
11	Findhorn, . . . . .	..	..	..	..	..	..	..	..	..	..
12	Cromarty, . . . . .	..	..	..	..	..	..	..	..	..	..
13	Helmsdale, . . . . .	..	..	..	..	..	..	..	..	..	..
14	Lybster, . . . . .	..	..	..	..	..	..	..	..	..	..
15	Wick, . . . . .	..	..	..	..	..	..	..	..	..	..
East Coast Totals } carried down, }		288	15,780	1,183,490	40,840	1,224,330	2,779	18	754	54,900	2,620
<b>Orkney &amp; Shetland.</b>											
16	Orkney, . . . . .	..	..	..	..	..	..	..	..	..	..
17	Shetland, . . . . .	..	..	..	..	..	..	..	..	..	..
Orkney & Shetland } Totals carried down }		..	..	..	..	..	..	..	..	..	..
<b>WEST COAST.</b>											
18	Stornoway, . . . . .	..	..	..	..	..	..	..	..	..	..
19	Barra, . . . . .	..	..	..	..	..	..	..	..	..	..
20	Loch Broom, . . . . .	..	..	..	..	..	..	..	..	..	..
21	Loch Carron and Skye, . . . . .	..	..	..	..	..	..	..	..	..	..
22	Fort-William, . . . . .	..	..	..	..	..	..	..	..	..	..
23	Campbeltown, . . . . .	..	..	..	..	..	..	..	..	..	..
24	Inveraray, . . . . .	..	..	..	..	..	..	..	..	..	..
25	Rothsay, . . . . .	..	..	..	..	..	..	..	..	..	..
26	Greenock, . . . . .	16	985	72,000	2,000	74,000	141	..	..	..	..
27	Ballantrae, . . . . .	..	..	..	..	..	..	..	..	..	..
West Coast Totals } carried down, }		16	985	72,000	2,000	74,000	141	..	..	..	..
<b>Totals brought down.</b>											
East Coast, . . . . .		288	15,780	1,183,490	40,840	1,224,330	2,779	18	754	54,900	2,620
Orkney and Shetland, . . . . .		..	..	..	..	..	..	..	..	..	..
West Coast, . . . . .		16	985	72,000	2,000	74,000	141	..	..	..	..
Grand Totals for 1912, . . . . .		304	16,765	1,255,490	42,840	1,298,330	2,920	18	754	54,900	2,620
Grand Totals for 1911, . . . . .		307	16,134	1,242,850	43,195	1,286,045	2,967	21	936	66,200	3,000
Increase in 1912, . . . . .		..	631	12,640	..	12,285	..	..	..	..	..
Decrease in 1912, . . . . .		3	..	..	355	..	47	3	182	11,300	380

Note 1.—The Returns relating to *Scottish Trawlers* are compiled according to the Creeks to Note 2.—The above return does not include 25 foreign trawlers, which fished more or less

No. I.—continued.

Value of the Beam and Otter Trawl Vessels engaged in the Scottish Fishing Industry, the Number of Persons employed thereon; and the Value of Fishing Gear.

TRAWL VESSELS.

Scottish by Steam)		Scottish (Propelled by Sails).					TOTAL.					No.	
Total.	Men Engaged.	Number.	Value.			Men Engaged.	Number.	Tonnage.	Value.				Men Engaged.
			Vessels	Fishing Gear.	Total.				Vessels.	Fishing Gear.	Total.		
£			£	£	£			£	£	£			
16,200	44	...	...	...	...	...	60	2,554	228,390	9,100	237,490	552	1
...	...	...	...	...	...	...	9	380	22,500	1,170	23,670	72	2
41,320	117	...	...	...	...	...	230	19,131	960,200	32,200	992,400	2,258	3
...	...	...	...	...	...	...	6	412	25,200	840	26,040	54	4
...	...	...	...	...	...	...	1	57	2,100	150	2,250	9	5
...	...	...	...	...	...	...	...	...	...	...	...	...	6
...	...	...	...	...	...	...	...	...	...	...	...	...	7
...	...	...	...	...	...	...	...	...	...	...	...	...	8
...	...	...	...	...	...	...	...	...	...	...	...	...	9
...	...	...	...	...	...	...	...	...	...	...	...	...	10
...	...	...	...	...	...	...	...	...	...	...	...	...	11
...	...	...	...	...	...	...	...	...	...	...	...	...	12
...	...	...	...	...	...	...	...	...	...	...	...	...	13
...	...	...	...	...	...	...	...	...	...	...	...	...	14
...	...	...	...	...	...	...	...	...	...	...	...	...	15
57,520	161	...	...	...	...	...	306	16,534	1,238,390	43,460	1,281,850	2,940	
...	...	...	...	...	...	...	...	...	...	...	...	...	16
...	...	...	...	...	...	...	...	...	...	...	...	...	17
...	...	...	...	...	...	...	...	...	...	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	18
...	...	...	...	...	...	...	...	...	...	...	...	...	19
...	...	...	...	...	...	...	...	...	...	...	...	...	20
...	...	...	...	...	...	...	...	...	...	...	...	...	21
...	...	...	...	...	...	...	...	...	...	...	...	...	22
...	...	...	...	...	...	...	...	...	...	...	...	...	23
...	...	...	...	...	...	...	...	...	...	...	...	...	24
...	...	...	...	...	...	...	...	...	...	...	...	...	25
...	...	49	247	2,210	920	3,130	110	16	985	72,000	2,000	74,000	141
...	...	49	247	2,210	920	3,130	110	49	247	2,210	920	3,130	110
...	...	49	247	2,210	920	3,130	110	65	1,232	74,210	2,920	77,130	251
...	...	...	...	...	...	...	...	...	...	...	...	...	
57,520	161	...	...	...	...	...	306	16,534	1,238,390	43,460	1,281,850	2,940	
...	...	49	247	2,210	920	3,130	110	65	1,232	74,210	2,920	77,130	251
57,520	161	49	247	2,210	920	3,130	110	371	17,766	1,312,600	46,380	1,358,980	3,191
69,200	195	48	245	2,045	885	2,930	112	376	17,315	1,311,095	47,080	1,358,175	3,274
...	...	1	2	165	35	200	...	...	451	1,505	...	805	...
11,680	34	...	...	...	...	...	2	5	...	...	700	...	83

which they belong; but in the case of others, according to the Creeks from which they fish regularly from Aberdeen. These vessels aggregated 1,600 tons, were valued, including gear, at £128,500, and employed 325 men.



## APPENDIX A.—

MEANS OF CAPTURE.—RETURN for the Year 1912, showing the Number, Tonnage, of Persons employed thereon

No.	DISTRICT.	STEAM TRAWLERS.					OTHER STEAM			
		Number.	Tonnage.	Men Engaged.	Value of Vessels.	Value of Fishing Gear.	Total.	Number.	Tonnage.	Men Engaged.
	<b>EAST COAST.</b>				£	£	£			
1	Eyemouth, . . . . .	...	...	...	...	...	...	7	169	49
2	Leith, . . . . .	60	2,554	552	228,390	9,100	237,490	9	201	81
3	Anstruther, . . . . .	...	...	...	...	...	...	60	1,234	526
4	Montrose, . . . . .	9	380	72	22,500	1,170	23,670	8	228	72
5	Stonehaven, . . . . .	...	...	...	...	...	...	...	...	...
6	Aberdeen, . . . . .	230	13,131	2,253	960,200	32,200	992,400	70	2,516	632
7	Peterhead, . . . . .	6	412	54	25,200	840	26,040	120	3,050	844
8	Fraserburgh, . . . . .	1	57	9	2,100	150	2,250	64	1,744	384
9	Banff, . . . . .	...	...	...	...	...	...	86	2,555	603
10	Buckie, . . . . .	...	...	...	...	...	...	257	6,700	1,978
11	Findhorn, . . . . .	...	...	...	...	...	...	119	3,549	964
12	Cromarty, . . . . .	...	...	...	...	...	...	...	...	...
13	Helmsdale, . . . . .	...	...	...	...	...	...	9	210	30
14	Lybster, . . . . .	...	...	...	...	...	...	...	...	...
15	Wick, . . . . .	...	...	...	...	...	...	53	1,161	476
	East Coast Totals } carried down, . . . . .	306	16,534	2,940	1,238,390	43,460	1,281,850	362	23,317	6,639
	<b>Orkney and Shetland.</b>									
16	Orkney, . . . . .	...	...	...	...	...	...	...	...	...
17	Shetland, . . . . .	...	...	...	...	...	...	364	12,706	3,636
	Orkney and Shetland } Totals carried down, . . . . .	...	...	...	...	...	...	364	12,706	3,636
	<b>WEST COAST.</b>									
18	Stornoway, . . . . .	...	...	...	...	...	...	1	37	8
19	Barra, . . . . .	...	...	...	...	...	...	...	...	...
20	Loch Broom, . . . . .	...	...	...	...	...	...	...	...	...
21	Loch Carron and Skye, . . . . .	...	...	...	...	...	...	...	...	...
22	Fort-William, . . . . .	...	...	...	...	...	...	...	...	...
23	Campbeltown, . . . . .	...	...	...	...	...	...	...	...	...
24	Inveraray, . . . . .	...	...	...	...	...	...	...	...	...
25	Rothesay, . . . . .	...	...	...	...	...	...	...	...	...
26	Greenock, . . . . .	16	985	141	72,000	2,000	74,000	5	98	39
27	Ballantrae, . . . . .	...	...	...	...	...	...	...	...	...
	West Coast Totals } carried down, . . . . .	16	985	141	72,000	2,000	74,000	6	135	47
	<b>Totals brought down.</b>									
	East Coast, . . . . .	306	16,534	2,940	1,238,390	43,460	1,281,850	362	23,317	6,639
	Orkney and Shetland, . . . . .	...	...	...	...	...	...	364	12,706	3,636
	West Coast, . . . . .	16	985	141	72,000	2,000	74,000	6	135	47
	Grand Totals for 1912, . . . . .	322	17,519	3,081	1,310,390	45,460	1,355,850	1232	36,158	10,322
	Grand Totals for 1911, . . . . .	328	17,070	3,162	1,309,050	46,195	1,355,245	1158	33,354	9,660
	Increase in 1912, . . . . .	...	449	...	1,340	...	605	74	2,804	662
	Decrease in 1912, . . . . .	6	...	81	...	735	...	...	...	...

No. I.—continued.

and Value of Steam Fishing Vessels engaged in the Scottish Fishing Industry; the Number and the Value of Fishing Gear.

FISHING VESSELS.			TOTALS OF STEAM FISHING VESSELS.						No.
Value of Vessels.	Value of Fishing Gear.	Total.	Number.	Tonnage.	Men Engaged	Value of Vessels.	Value of Fishing Gear.	Grand Total.	
£	£	£				£	£	£	
10,430	2,808	13,238	7	169	49	10,430	2,808	13,238	1
19,700	3,780	23,480	69	2,755	633	248,090	12,880	260,970	2
115,190	25,852	141,042	60	1,234	526	115,190	25,852	141,042	3
18,000	4,040	22,040	17	608	144	40,500	5,210	45,710	4
...	...	...	...	...	...	...	...	...	5
149,980	30,430	180,410	300	15,647	2,885	1,110,180	62,630	1,172,810	6
323,000	53,864	376,864	126	3,462	898	348,200	54,704	402,904	7
158,000	24,180	182,180	65	1,801	393	160,100	24,330	184,430	8
187,600	18,995	206,595	86	2,555	603	187,600	18,995	206,595	9
642,500	97,140	739,640	257	6,700	1,978	642,500	97,140	739,640	10
291,550	47,170	338,720	119	3,549	964	291,550	47,170	338,720	11
11,940	3,654	15,594	9	210	30	11,940	3,654	15,594	12
106,000	17,098	123,098	53	1,161	476	106,000	17,098	123,098	13
2,033,890	329,011	2,362,901	1,168	39,851	9,579	3,272,280	372,471	3,644,751	14
798,150	118,672	916,822	364	12,706	3,636	798,150	118,672	916,822	15
798,150	118,672	916,822	364	12,706	3,636	798,150	118,672	916,822	16
1,000	246	1,246	1	37	8	1,000	246	1,246	17
...	...	...	...	...	...	...	...	...	18
...	...	...	...	...	...	...	...	...	19
...	...	...	...	...	...	...	...	...	20
...	...	...	...	...	...	...	...	...	21
...	...	...	...	...	...	...	...	...	22
...	...	...	...	...	...	...	...	...	23
...	...	...	...	...	...	...	...	...	24
8,700	514	9,214	21	1,083	180	80,700	2,514	83,214	25
...	...	...	...	...	...	...	...	...	26
9,700	760	10,460	22	1,120	188	81,700	2,760	84,460	27
2,033,890	329,011	2,362,901	1,168	39,851	9,579	3,272,280	372,471	3,644,751	
798,150	118,672	916,822	364	12,706	3,636	798,150	118,672	916,822	
9,700	760	10,460	22	1,120	188	81,700	2,760	84,460	
2,841,740	448,443	3,290,183	1,554	53,677	13,403	4,152,130	493,903	4,646,033	
2,637,398	421,587	3,058,985	1,486	50,424	12,822	3,946,448	467,782	4,414,230	
204,342	26,856	231,198	68	3,253	581	205,682	26,121	231,803	
...	...	...	...	...	...	...	...	...	

## APPENDIX A.—

MEANS OF CAPTURE.—RETURN for the Year 1912, showing the Total Number, Fishing Industry; the Total Number of Persons employed

No.	DISTRICTS.	FISHING BOATS AND BEAM AND OTTER				
		Number.	Tonnage.	Value.		
				Boats and Vessels.	Fishing Gear.	Total.
	<b>EAST COAST.</b>			£	£	£
1	Eyemouth, . . . . .	144	2,936	50,171	29,907	80,078
2	Leith, . . . . .	425	7,278	285,730	48,932	334,662
3	Anstruther, . . . . .	491	10,281	175,655	79,845	255,500
4	Montrose, . . . . .	365	4,403	62,260	24,802	87,062
5	Stonehaven, . . . . .	83	798	2,997	5,729	8,726
6	Aberdeen, . . . . .	381	16,140	1,112,111	65,379	1,177,490
7	Peterhead, . . . . .	316	5,537	366,084	74,067	440,151
8	Fraserburgh, . . . . .	586	11,094	238,216	96,076	334,292
9	Banff, . . . . .	413	7,584	218,737	47,720	266,457
10	Buckie, . . . . .	686	18,662	754,479	161,726	916,205
11	Findhorn, . . . . .	311	7,660	326,670	83,764	410,434
12	Cromarty, . . . . .	157	1,339	8,669	8,750	17,419
13	Helmsdale, . . . . .	127	896	16,032	9,674	25,706
14	Lybster, . . . . .	37	266	709	932	1,641
15	Wick, . . . . .	382	4,275	123,734	36,009	159,743
	East Coast Totals carried } down, . . . . .	4,904	99,149	3,742,254	773,312	4,515,566
	<b>Orkney and Shetland.</b>					
16	Orkney, . . . . .	351	2,149	8,035	7,929	15,964
17	Shetland, . . . . .	956	20,129	841,852	157,301	999,153
	Orkney and Shetland Totals } carried down, . . . . .	1,307	22,278	849,887	165,230	1,015,117
	<b>WEST COAST.</b>					
18	Stornoway, . . . . .	569	4,448	21,526	23,246	44,772
19	Barra, . . . . .	296	1,798	6,885	8,671	15,556
20	Loch Broom, . . . . .	342	1,396	7,866	12,950	20,816
21	Loch Carron and Skye, . . . . .	457	1,620	8,277	9,052	17,329
22	Fort-William, . . . . .	232	609	3,690	3,174	6,864
23	Campbeltown, . . . . .	308	1,277	12,061	7,842	19,903
24	Inveraray, . . . . .	231	1,142	9,059	4,153	13,212
25	Rothsay, . . . . .	107	292	3,002	1,571	4,573
26	Greenock, . . . . .	185	1,469	83,053	3,781	86,834
27	Ballantrae, . . . . .	352	1,112	9,284	7,276	16,560
	West Coast Totals carried } down, . . . . .	3,079	15,163	164,703	81,716	246,419
	<b>Totals brought down.</b>					
	East Coast, . . . . .	4,904	99,149	3,742,254	773,312	4,515,566
	Orkney and Shetland, . . . . .	1,307	22,278	849,887	165,230	1,015,117
	West Coast, . . . . .	3,079	15,163	164,703	81,716	246,419
	Grand Totals for 1912, . . . . .	9,290	136,590	4,756,844	1,020,258	5,777,102
	Grand Totals for 1911, . . . . .	9,543	137,930	4,601,876	1,026,211	5,628,087
	Increase in 1912, . . . . .	...	...	154,968	...	149,015
	Decrease in 1912, . . . . .	253	1,340	...	5,953	...

No. I.—continued.

Tonnage, and Value of the Steam, Motor, and Sailing Boats and Vessels engaged in the Scottish thereon; and the Total Extent and Value of Fishing Gear.

TRAWL VESSELS (Propelled by Steam, Motor, Sails, or Oars).						DISTRICTS.	No.
Area of Nets.	Length of Lines (including Buoy Ropes, &c.).	Crab and Lobster Creels.	Number of Fishermen and Boys.				
			Resident	Non-Resident	Total.		
Sq. Yds.	Yards.	No.				<b>EAST COAST.</b>	
6,240,000	1,123,780	3,000	570	...	570	Eyemouth.	1
7,357,680	3,083,040	6,335	2,129	...	2,129	Leith.	2
19,278,920	4,715,495	4,280	1,385	552	1,937	Anstruther.	3
4,328,166	3,431,330	4,780	947	...	947	Montrose.	4
772,800	1,128,320	1,920	219	...	219	Stonehaven.	5
5,136,000	4,313,300	330	3,085	...	3,085	Aberdeen.	6
12,355,200	6,362,120	870	1,206	315	1,521	Peterhead.	7
21,299,040	3,397,400	3,220	1,839	74	1,913	Fraserburgh.	8
10,838,760	3,291,244	1,106	1,435	4	1,439	Banff.	9
39,260,400	6,186,880	470	2,975	244	3,219	Buckie.	10
21,089,000	2,833,650	240	1,650	120	1,770	Findhorn.	11
1,794,120	770,890	340	636	...	636	Cromarty.	12
1,918,800	1,200,910	780	366	...	366	Helmsdale.	13
238,550	131,090	160	140	...	140	Lybster.	14
8,313,280	1,118,580	6,120	1,143	390	1,533	Wick.	15
160,220,716	43,088,029	33,951	19,725	1,699	21,424	{ East Coast Totals carried down.	
						<b>Orkney and Shetland.</b>	
1,581,000	511,370	10,950	927	...	927	Orkney.	16
27,838,000	5,742,110	220	2,518	3,600	6,118	Shetland.	17
29,419,000	6,253,480	11,170	3,445	3,600	7,045	{ Orkney and Shetland Totals carried down.	
						<b>WEST COAST.</b>	
5,512,200	4,370,768	7,797	4,082	...	4,082	Stornoway.	18
1,814,400	645,944	5,540	981	...	981	Barra.	19
3,327,500	816,700	4,839	1,009	...	1,009	Loch Broom.	20
2,220,700	869,265	5,099	1,126	...	1,126	Loch Carron and Skye.	21
661,800	309,122	2,787	495	...	495	Fort-William.	22
1,595,200	553,210	3,210	720	...	720	Campbeltown.	23
824,300	245,010	1,600	473	...	473	Inveraray.	24
484,000	132,080	400	139	...	139	Rothsay.	25
414,720	184,442	970	363	...	363	Greenock.	26
1,460,030	969,508	2,060	577	...	577	Ballantrae.	27
18,314,850	9,096,049	34,293	9,965	...	9,965	{ West Coast Totals carried down.	
						<b>Totals brought down.</b>	
160,220,716	43,088,029	33,951	19,725	1,699	21,424	East Coast.	
29,419,000	6,253,480	11,170	3,445	3,600	7,045	Orkney and Shetland.	
18,314,850	9,096,049	34,293	9,965	...	9,965	West Coast.	
207,954,566	58,437,558	79,414	33,135	5,299	38,434	Grand Totals for 1912.	
209,679,346	59,328,951	78,693	33,733	4,893	38,626	Grand Totals for 1911.	
...	...	721	...	406	...	Increase in 1912.	
1,724,780	891,393	...	598	...	192	Decrease in 1912.	



## APPENDIX A.—

RETURN giving Particulars regarding the State of the Fisheries at each

Station or Cræk.	Fishing Boats and Vessels belonging to Cræk.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1911.		Decrease from 1911.				
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
<i>Eyemouth District.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
North Shields (Northumberland)	103	3,551	.	.	10	37	3	5	116	3,593	.	.	7	188	.	698	.
Cullercoats	.	.	.	.	59	211	4	7	63	218	4	25	.	.	10	129	.
Blyth	29	2,061	1	20	3	6	.	.	33	2,087	21	1,384	.	.	.	271	.
Newbiggin	9	398	.	.	58	144	16	32	83	574	20	83	.	.	12	62	.
Cresswell	.	.	.	.	1	1	2	2	3	3	.	.	.	1	.	12	.
Hanxley	.	.	.	.	4	11	6	16	10	27	.	.	.	2	.	21	.
Amble	.	.	.	.	5	14	.	.	5	14	1	3	.	.	.	9	.
Alnmouth	.	.	.	.	1	2	4	8	5	10	.	.	2	5	.	9	.
Boulmer	.	.	.	.	15	41	4	8	19	49	3	5	.	.	.	25	.
Craster	.	.	2	84	15	38	.	.	17	122	.	.	6	37	.	29	.
Newton	.	.	.	.	12	30	7	13	19	43	1	4	.	.	.	25	.
Beadnell	4	123	2	58	19	60	7	8	32	249	5	4	.	.	2	37	.
North Sunderland	8	277	.	.	18	57	1	2	27	336	.	2	2	.	.	61	.
Holy Island	1	43	.	.	11	36	.	.	12	79	.	.	2	2	.	39	.
Spittal	1	47	.	.	7	31	1	3	9	81	.	.	1	4	1	25	.
Berwick	3	151	.	.	11	49	3	6	17	206	.	.	2	37	.	41	.
English Stations—Totals	158	6,651	5	162	249	768	58	110	470	7,691	55	1,510	22	276	25	1,484	.
Burnmouth (Berwickshire)	9	265	4	21	25	58	7	7	45	351	.	.	3	30	.	98	.
Eyemouth	58	1,845	.	.	9	48	.	.	67	1,893	.	.	3	39	3	372	.
St. Abbs	19	626	1	8	12	58	.	.	32	692	.	39	.	.	.	100	.
Scottish Stations—Totals	86	2,736	5	29	46	161	7	7	144	2,936	.	39	6	69	3	570	.
English Stations—Totals	153	6,651	5	162	249	768	58	110	470	7,691	55	1,510	22	276	25	1,484	.
Grand Totals for District	244	9,387	10	191	295	932	65	117	614	10,627	55	1,549	28	345	28	2,054	.

\* Persons from inland centres temporarily engaged in fishing.

† Includes 73 steam trawlers, of an aggregate tonnage of 2803 tons.

‡ Steam trawlers.

No. II.

Fishing Creek or Station on the Scottish Coasts during the Year 1912.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
Trawl and drift nets and lines.	The North Sea and off Orkney and Shetland.	.	.	.	Herrings, haddock, cod, plaice, and lemon soles.	27	Considerable decrease in herrings. Catch, 63,526 crans, of which 5740 crans were landed by trawlers. Small addition made to landing wharf.
Lines and creels.	Inshore.	.	.	.	Haddocks and codlings.	.	Line fishing above the average. Fishermen also prosecute the trout and salmon fishing.
Trawl and drift nets and lines.	The North Sea and off Orkney and Shetland.	.	.	.	Herrings, haddock, cod, and plaice.	15	Large decrease in herrings. Proportion cured for export on the decline. About 1600 crans landed by trawlers. Large addition to trawling fleet. Harbour and market facilities are excellent.
Nets, lines, and creels.	1 to 40 miles offshore.	.	.	.	Codlings, haddock, and crabs.	.	Four crews prosecuted the summer herring fishing. Line and crab fishing above the average.
Lines and creels.	Inshore.	.	.	.	Codlings and crabs.	.	Line and crab fishing about the average.
"	"	.	.	.	"	.	" " "
"	"	.	.	.	"	.	" " "
"	"	.	.	.	"	.	" " "
Nets, lines, and creels.	2 to 20 miles offshore.	.	.	.	Herrings, codlings, and crabs.	3	Herring fishing a failure; lowest on record. Line and crab fishing above the average. Fair trade in shipping stones.
Lines and creels.	Inshore.	.	.	.	Codlings and crabs.	.	Line and crab fishing about the average.
Nets, lines, and creels.	2 to 35 miles offshore.	.	.	.	Herrings, codlings, haddock, and crabs.	2	Herring fishing a failure. Only 318 crans landed. Line and crab fishing above the average.
"	"	.	.	.	"	8	Only 7294 crans of herrings landed — the lowest on record. Increase of steam and motor boats affecting port adversely. Line and crab fishing about the average.
"	"	.	.	.	"	.	Line and crab fishing above the average.
"	"	.	.	.	"	4	Large decrease in herrings. Increased accommodation to be made for herring boats. Line and crab fishing about the average.
"	"	.	.	.	"	6	Line and crab fishing about the average.
		.	.	.		63	
Nets, lines, and creels.	1 to 5, and 12 to 40 miles offshore.	4,447	2,460	1,124	Herrings, haddock, and crabs.	1	Decrease in herrings. Nine crews prosecuted the home, and four the English herring fishing. Large decrease in line fishing. Average crab fishing.
"	"	108,372	32,981	1	"	23	Winter herring fishing a failure. Summer fishing 7480 crans under average for last five years. English fishing successful. Large decrease in line fishing.
"	"	448	178	908	Codlings and crabs.	.	Decrease in line fishing, but increase in crabs. Fishermen fairly successful at the various herring fishings.
		113,267	35,619	2,033		24	
		.	.	.		65	
		.	.	.		89	

Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1911.		Decrease from 1911.					
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.			No.	Ton.	No.	Ton.	No.			
<i>Leith District.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Cove (Berwickshire)	1	34	.	.	14	37	.	.	15	71	.	.	.	.	.	20	.
Dunbar (Haddingtonshire)	3	79	1	11	22	70	.	.	26	160	.	.	.	.	.	125	.
North Berwick „	.	.	.	.	7	15	1	2	8	17	.	.	.	.	.	15	.
Port Seton and Cockenzie (Haddingtonshire)	69	2,339	26	250	29	127	.	.	124	2,716	.	.	6	77	4	602	.
Prestonpans „	2	91	.	.	.	.	2	2	4	93	.	.	1	6	.	20	.
Fisherrow (Midlothian)	12	385	18	200	8	35	.	.	38	620	.	.	4	139	2	243	.
Leith „	†6	296	.	.	.	.	1	1	7	297	.	1	.	.	.	57	.
Newhaven „	.	.	.	.	42	178	5	10	47	188	.	4	.	.	.	312	.
Granton „	†53	2,212	.	.	.	.	.	.	53	2,212	.	.	4	78	.	534	.
Bo'ness (Linlithgowshire)	4	117	6	120	.	.	1	1	11	238	1	12	.	.	.	20	.
Alloa (Clackmananshire)	2	82	11	225	.	.	3	7	16	314	.	.	.	.	.	30	.
Kincardine (Fifeshire)	2	39	4	60	.	.	.	.	6	108	.	.	.	.	.	25	.
Limekilns „	.	.	.	.	.	.	4	6	4	6	.	.	.	.	.	6	.
Inverkeithing „	.	.	.	.	.	.	2	5	2	5	.	.	.	.	.	5	.
Aberdour „	.	.	.	.	2	9	1	1	3	10	.	.	.	.	.	10	.
Burntisland „	.	.	.	.	.	.	3	5	3	5	.	.	1	1	.	15	.
Kinghorn „	.	.	.	.	.	.	10	11	10	11	.	.	.	.	.	20	.
Kirkcaldy „	.	.	.	.	11	24	15	13	26	37	.	.	.	.	.	40	.
Dysart and Wemyss „	.	.	.	.	.	.	17	17	17	17	.	.	.	.	.	30	.
Totals	154	5,674	66	875	135	495	65	81	420	7,125	1	17	16	301	6	2,129	.

\* Persons from inland centres temporarily engaged in fishing.

† Steam trawlers.

‡ Includes 49 steam trawlers, of an aggregate tonnage of 2,105 tons.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
Crab creels.	1 to 10 miles offshore.	224	57	866	Crabs.	.	Crab fishing the principal industry. The yearly catch never varies much.
Nets, lines, and creels.	"	6,247	2,773	1,779	Crabs, herrings, and codlings.	1	Crabs are the mainstay. Fishing is not successful, but the aggregate earnings were slightly higher than last year's.
Lines and creels.	"	457	179	364	Shell fish.	.	Very little change. Fishing not prosperous.
Nets, lines, and dredges.	Firth of Forth and off the May Island,	11,619	8,164	1,197	Codlings, haddocks, plaice, and clams.	.	These villages have an industrious population of fishermen who engage in the herring fishings at the principal Scottish and English centres with much success. From these their chief income is derived, but this year they were not very successful. The home fishings fell off by about £2000 as compared with the earnings in 1911
Lines.	1 to 5 miles offshore.	137	126	24	Codlings.	.	Fishings unimportant.
Lines and nets.	"	965	658	25	Codlings and plaice.	.	The home fishings are not productive, and appear to be yearly declining. The principal income is derived from herring fishing at the Scottish and English centres.
Mussel dredges.	Foreshores.	.	.	257	Mussels.	4	Small quantities of mussels and clams are landed here as a convenient place for distribution by rail and steamer.
Trawl, drift, seine, and other nets also lines.	Trawling, principally 10 to 150 miles off May Island; also off Aberdeenshire, Orkney and Shetland.	13,029	6,190	167	Herrings and codlings.	1	The net and line fishings, in which the bulk of the resident Newhaven fishermen are engaged, gave poor results. The herring fishing was not successful, and the sprat fishing failed entirely. As compared with the preceding year, the decrease in earnings was about £600.
Otter trawls.	Nets and lines in Firth of Forth.	320,250	178,598	134	Haddocks, codlings, whittings, soles, plaice, etc.	.	Granton is the centre of the local trawling industry, where about 80 steam trawlers make their landings. Owing to strikes and labour disputes the work had spells of interruption, and mainly to this cause the aggregate catch shows a decrease, as compared with the preceding year, amounting in round numbers to 60,000 cwts. and £8000.
Bag-nets.	Upper reaches of Firth of Forth.	987	229	.	Sprats and sparlings.	.	} Bag-net fishing is almost the only method carried on at these villages, and the fish usually caught are sprats and sparlings. The sprat fishing failed, and altogether the district earnings from sprats fell off by £1300 as compared with the preceding year's result.
"	"	1,294	968	.	"	.	
"	"	1,668	447	.	"	.	
Lines.	Foreshores.	240	99	.	Codlings.	.	Fisheries unimportant.
Gathering whelks.	"	.	.	37	Whelks.	.	" "
Nets.	"	295	119	.	Herrings.	.	" "
Lines and nets.	"	513	264	14	Codlings.	.	" "
"	"	656	386	.	Codlings and herrings.	.	" "
"	"	254	118	.	" "	.	" "
"	"	875	518	37	Codlings and plaice.	.	" "
		359,713	199,893	4,931		6	



Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1911.	Decrease from 1911.						
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.	Under 18 feet keel.											
<i>Anstruther District.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Buckhaven . . . . .	14	415	1	20	23	78	14	21	52	534	.	.	12	299	10	48	.
Methil and Leven . . . . .	.	.	.	.	.	.	1	2	1	2	.	.	.	.	.	2	.
Largo . . . . .	.	.	.	.	9	29	6	11	15	40	.	.	1	1	.	36	.
Elie and Earlsferry . . . . .	.	.	.	.	3	11	1	2	4	13	.	.	1	2	.	5	.
St. Monans . . . . .	102	4,003	18	205	7	23	2	2	129	4,323	5	13	.	.	.	396	229
Pittenweem . . . . .	42	1,469	1	6	27	122	2	2	72	1,599	.	.	7	157	.	245	89
Anstruther and Cellardyke	95	2,999	11	114	6	10	6	10	118	3,133	.	.	7	134	9	485	227
Crail . . . . .	.	.	1	14	24	62	7	9	32	85	1	.	.	3	.	58	.
Kingsbarns . . . . .	.	.	.	.	.	.	3	5	3	5	.	.	.	.	.	5	.
St. Andrews . . . . .	4	137	9	81	23	111	3	4	39	333	.	.	40	5	67	7	.
River Eden . . . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Tayport . . . . .	.	.	1	18	11	24	3	5	15	47	.	16	.	.	3	18	.
Newburgh . . . . .	.	.	8	151	.	.	.	.	8	151	.	.	5	83	.	20	.
Totals . . . . .	257	9,113	50	609	133	470	48	73	488	10,265	6	29	33	724	27	1,385	552
<i>Montrose District.</i>																	
Dundee (Forfarshire),	10	390	8	148	.	.	.	.	18	538	.	25	.	.	.	97	.
Broughty Ferry „	2	62	12	144	17	53	11	31	42	290	.	24	.	.	1	98	.
Westhaven „	.	.	.	.	1	4	2	1	3	5	.	.	.	.	.	5	.
Easthaven „	.	.	.	.	1	2	7	11	8	13	.	.	.	.	.	5	.
Arbroath „	17	668	22	292	31	107	.	.	70	1,067	.	.	4	21	2	175	.
Auchmithie „	1	47	.	.	9	22	5	7	15	76	.	.	1	2	.	22	.
Usan „	.	.	.	.	1	2	5	7	6	9	.	.	.	.	.	8	.

\* Persons from inland centres temporarily engaged in fishing  
† Includes 9 steam trawlers, of an aggregate tonnage of 380 tons.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
Nets and lines.	Firth of Forth.	1,671	1,056	36	Herrings, haddocks, and codlings.	.	The fishing continues to fall off at this station, the catch being only about half that of the previous year. Persons who were formerly engaged at fishing are now employed at the coal pits.
Lines and creels.	"	125	66	15	Codlings and plaice.	.	Unimportant as fishing stations. Catch shows a decrease.
Nets and lines.	"	3,305	1,895	8	Codlings, haddocks, and plaice.	.	An increase in catch. Herrings and haddocks show a falling-off, but there was a considerable increase in the quantity of codlings and plaice landed.
"	"	167	72	7	Herrings, plaice, and codlings.	.	Very little fishing carried on. Decrease in catch.
"	Firth of Forth to 240 miles E. and E.S.E. of May Island.	23,662	8,050	32	Herrings, cod, and codlings.	7	Considerable increase in the catch of herrings. Line fishing received less attention, and the catch of cod, etc., shows a falling-off.
"	"	10,287	5,036	.	Herrings, haddocks, and codlings.	2	Large falling-off in catch. During the winter season a number of crews belonging to this station landed their catches at Anstruther. Line fishing was less productive.
Nets, lines, and creels	"	49,270	16,183	271	Herrings, cod, and codlings.	27	A falling-off in the quantity of fish landed, but an increase in value. Compared with the previous year, better prices were received for herrings during the winter season. Great-line fishing showed slightly better results.
"	Along the coast to 10 miles off.	4,752	1,838	1,901	Herrings, codlings, crabs, and lobsters.	.	Increase in catch and value. During the last few months of the year, small-line fishing was attended by very satisfactory results. Crabs and lobsters show a slight falling-off. Catch about the same as last year's.
Creels.	Along the coast.	50	20	474	Crabs and lobsters.	.	Falling-off in catch. Plaice show a substantial increase, but the catch of codlings, haddocks, and dabs was considerably less.
Nets and lines.	St. Andrews Bay to Bell Rock.	3,979	2,279	106	Plaice and codlings.	.	Continues to fall off.
Mussel-gathering.	River Eden.	.	.	607	Mussels.	.	Decrease.
Mussel-dredging.	Estuary of Tay.	35	26	66	"	.	Slight increase in catch.
Bag nets.	River Tay.	202	345	.	Sparlings and flounders.	.	
		97,505	36,806	3,523		36	
(1) Trawling	(1) 5 to 80 miles off.	52,934	32,175	9	Haddocks, codlings, whittings, flat-fish.	.	Sprat fishing was a complete failure, and the returns relating to trawlers show decreases.
(2) Bag nets	(2) River Tay, and adjacent bays.	953	629	1,345	Flat-fish and mussels.	.	Decrease due to failure of herring fishing.
Nets and lines.	Along coast.	128	52	13	Codlings and dabs.	.	Only crab and lobster fishing carried on here.
Lines and creels.	"	56	30	82	Lobsters and crabs.	.	" " " "
Nets, lines, and creels.	1 to 70 miles off.	17,330	8,614	431	Herrings, codlings, haddocks, lobsters and crabs.	1	Decrease in returns owing to failure of herring fishing. Codlings more plentiful, but haddocks about the same as in 1911.
Lines and creels.	Along coast.	1,248	682	314	Codlings, lobsters and crabs.	.	Decrease in returns, but creek is not important.
"	"	321	156	115	"	.	Returns almost the same as in 1911.

Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1911.		Decrease from 1911.				
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
<i>Montrose District—contd.</i>																	
Ferryden (Forfarshire)	24	844	17	188	2	4	21	29	64	1,065	.	.	1	98	5	211	.
Montrose "	6	186	.	.	7	14	.	.	13	200	1	38	.	.	.	67	.
Milton (Kincardineshire)	.	.	.	.	1	1	2	3	3	4	.	.	.	.	.	4	.
Johnshaven "	6	200	3	24	29	109	16	28	54	361	.	1	2	.	1	75	.
Gourdon "	12	442	23	223	33	108	1	2	69	775	.	.	4	66	2	180	.
Totals	78	2,839	85	1,019	132	426	70	119	365	4,408	1	88	12	187	11	947	.
<i>Stonehaven District.</i>																	
Shieldhill (Kincardineshire)	.	.	.	.	1	2	4	5	5	7	.	.	.	.	.	6	.
Catterline "	.	.	1	5	4	7	11	19	16	31	.	.	1	7	.	25	.
Crawton "	.	.	.	.	1	2	4	7	5	9	.	.	1	1	.	7	.
Stonehaven "	13	436	18	210	11	35	7	9	49	690	.	.	3	74	.	166	.
Cowie "	1	20	.	.	1	4	1	1	3	25	.	.	1	3	.	8	.
Skateraw "	1	28	.	.	2	5	2	3	5	36	.	.	.	.	.	7	.
Totals	15	484	19	215	20	55	29	44	83	793	.	.	6	85	.	219	.
<i>Aberdeen District.</i>																	
Downies (Kincardineshire)	.	.	.	.	5	23	.	.	5	23	.	.	.	.	.	18	.
Portlethen Cove "	1	32	3	22	5	14	3	7	12	75	.	.	4	34	.	26	.
Aberdeen (Aberdeenshire)	†291	15,174	2	19	21	62	25	28	339	15,283	.	627	15	.	.	3,021	.
Totals	292	15,206	5	41	38	111	30	37	365	15,395	.	627	19	34	.	3,055	.

\* Persons from inland centres temporarily engaged in fishing.

† Includes 217 steam trawlers, of an aggregate tonnage of 12,530 tons.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish.)		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
(1) Nets and lines. (2) Mussel-dredging.	(1) 1 to 70 miles off. (2) South Esk.	.	.	504	Mussels and periwinkles.	.	Slight shortage in quantity of mussels gathered.
Mussel-dredging.	South Esk.	25,833	10,750	1,010	Herrings, codlings, haddock, flat-fish, and mussels.	2	Large decrease in herring and trawl fish returns. Haddocks were very scarce during the year. Increase in mussel returns.
Lines and creels.	Along coast.	149	75	52	Lobsters and crabs.	.	Creek of no note.
Nets, lines, and creels.	1 to 50 miles off.	5,102	2,286	348	Codlings, haddocks, lobsters and crabs.	3	Results better than in 1911 in all branches except herring fishing.
"	"	11,399	6,398	944	Codlings, haddocks, whittings, and crabs.	2	Returns of white fish ahead of previous year, but fewer crabs were again taken.
		115,453	61,847	5,172		8	
Lines and crab creels.	1 to 4 miles offshore.	42	20	211	Codlings, lobsters, and crabs.	.	Slight decrease in catch.
"	1 to 10 miles offshore.	1,795	757	855	Codlings, haddocks, lobsters and crabs.	.	Slight increase in value.
"	1 to 5 miles offshore.	59	22	116	Codlings and crabs.	.	Decrease in both codlings and crabs.
Drift nets, lines, and crab creels.	25 to 90 miles S.E., and from 1 to 12 miles off Tod Head.	17,429	7,015	66	Herrings, codlings, haddocks, whittings, and crabs.	5	All kinds of fish landed, with the exception of whiting, show a decrease.
Lines and crab creels.	1 to 10 miles offshore.	158	64	11	Codlings and crabs.	.	Decrease in codlings and crabs.
"	"	450	126	28	Haddocks, whittings, and crabs.	.	Decrease in catch.
		19,933	8,004	1,287		5	
Lines and creels.	1 to 10 miles offshore.	1,334	624	20	Codlings, haddocks, whittings, and crabs.	.	Decrease in quantity and value of both white fish and shell-fish.
"	"	1,861	891	47	" " " " " "	.	" " " " " "
"	"	485	230	143	Whittings, saithe, codlings, and crabs.	.	Slight increase in quantity and value.
Otter trawl, drift nets, great, small, and hand lines.	Off Shetland, Orkney, North-western grounds, St. Kilda, Flannan Islands, Barra Head, West Coast of Ireland, Faroe, and Iceland. In the North Sea, in latitudes 55° to 61° N.	2033388	1122627	20	Cod, haddocks, herrings, ling, saithe, whittings, halibut, lemon soles, plaice, megrim, and skate.	Herring cures, 10; tinnets, 9; haddock and cod cures, 152.	All the branches of the fishing industry show a slight decrease in quantity, but a considerable increase in value. The latter was due to the scarcity of the best kinds of fish and the enhanced prices realised in consequence. The value is a record for the port.
		2,037,068	1,124,372	230		180	



Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1911.	Decrease from 1911.						
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.					No.	Ton.	No.			
<i>Peterhead District.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Newburgh (Aberdeenshire)	.	.	.	.	1	5	1	2	2	7	.	.	.	.	.	4	.
Collieston "	.	.	.	.	3	8	5	8	8	16	.	.	.	.	.	15	.
Oldcastle "	.	.	.	.	.	.	.	.	.	.	.	.	1	4	.	.	.
Whinnyfold "	2	75	.	.	5	13	4	9	11	97	.	.	5	127	.	24	4
Port-Errol "	2	67	2	22	4	8	16	25	24	122	.	.	1	43	1	84	4
Bullers O'Buchan "	.	.	.	.	1	5	.	.	1	5	.	.	.	.	.	2	.
Boddam "	10	348	3	55	7	19	14	19	34	441	.	.	7	184	3	137	15
Peterhead "	†148	4,465	1	6	24	86	34	46	207	4,603	1	9	.	.	2	834	272
Buchanhaven "	3	130	1	15	9	36	9	12	22	193	.	.	4	40	.	97	8
Rattray "	.	.	.	.	.	.	5	5	5	5	1	.	.	1	.	9	.
Totals . . .	165	5,085	7	98	54	180	88	126	314	5,489	2	9	18	399	6	1,206	303
<i>Fraserburgh District.</i>																	
St. Combs (Aberdeenshire)	43	1,702	.	.	.	.	62	90	105	1,792	.	.	1	38	1	250	6
Charlestown "	.	.	.	.	.	.	4	8	4	8	.	.	1	2	.	16	.
Inverallochy "	26	904	.	.	.	.	54	88	80	992	4	70	.	.	.	273	14
Cairnbulg "	43	1,702	.	.	.	.	62	87	105	1,789	6	193	.	.	.	284	14
Fraserburgh "	†125	4,305	13	149	9	47	45	65	192	4,566	7	34	.	.	.	673	26
Sandhaven & Pittulie "	11	423	.	.	1	9	11	12	23	444	.	.	1	42	1	70	4
Roseheartly "	34	1,334	4	26	11	58	11	20	60	1,433	.	.	1	95	1	224	10
Pennan (Banffshire)	1	44	.	.	1	3	15	18	17	65	.	.	1	3	.	49	.
Totals . . .	283	10,414	17	175	22	117	264	338	536	11,094	17	297	5	180	3	1,839	74
<i>Banff District.</i>																	
Crovie (Banffshire)	6	218	.	.	8	27	25	32	39	277	.	.	2	13	.	103	.
Gardenstown "	42	1,473	6	76	7	30	15	21	70	1,600	.	.	4	61	.	239	.
Macduff "	54	1,869	2	32	20	81	13	23	89	2,005	.	11	2	.	2	370	4
Banff "	44	1,417	.	.	.	.	3	4	47	1,421	.	.	3	116	.	279	.
Whitehills "	22	679	1	14	40	167	26	51	89	911	.	42	.	.	3	246	.

\* Persons from inland centres temporarily engaged in fishing.

† Includes 6 steam trawlers, of an aggregate tonnage of 412 tons.

‡ Includes 1 steam trawler of 57 tons.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
Lines	1 to 3 miles off.	20	8	16	Codlings and mussels.	.	Of no importance as a fishing creek.
"	1 to 6 miles off.	855	476	.	Codlings and flounders.	.	A slight increase in quantity and value.
Lines.	1 to 7 miles off.	179	98	.	Codlings and plaice.	.	Fishermen have entirely abandoned this creek. A large decrease in quantity and value.
"	"	694	421	.	Codlings, whittings, plaice, and dabs.	.	Decrease in quantity and value.
"	1 mile off.	34	13	.	Codlings.	.	There are no regular fishermen at this creek.
Lines and creels.	2 to 10 miles off.	797	361	51	Codlings, haddocks, and flounders.	.	An increase in quantity and value.
Nets, lines, and creels.	1 to 4, and from 20 to 90 miles off.	718,876	245,666	55	Herrings, cod, saithe, haddocks, ling, and skate.	80	An increase in quantity and value of herrings, but a decrease in white fish. Means of capture show very little change.
Lines.	1 to 4 miles off.	932	468	1	Codlings, haddocks, and plaice.	.	An increase in quantity and value.
Lines and creels.	"	197	66	29	Codlings and crabs.	.	A slight increase in quantity and value.
		722,584	247,577	152		80	
} Lines and crab creels.	1 to 10 miles from shore.	4,195	1,056	723	Codlings and crabs.	.	{ An increase of one steam drifter. Fishermen belonging to this section had another prosperous year.
	"	4,833	1,216	321	"	.	
Nets and lines.	1 to 90 miles from shore.	714,675	255,640	282	Herrings, haddocks, and codlings.	75	An increase of six steam drifters. A considerable increase in quantity and value of herrings landed. This is now the only place in the district where first class boats land fish.
Lines and crab creels	1 to 10 miles from shore.	308	144	179	Haddocks and crabs.	.	No improvement at this station. Boats and fishing gear slowly depreciating.
"	"	2,510	1,352	45	"	.	An increase of one steam drifter. Fishermen who followed the various herring fishings did well.
"	"	307	110	49	"	.	Very little change at this station.
		726,828	259,518	1,599		75	
Lines.	1 to 8 miles off.	} 5,106	} 2,146	} 66	} Cod and haddocks.	} 5	{ Line fishing chiefly prosecuted at these creeks. There is a decrease in quantity and value, chiefly in haddocks. Three steam drifters added to the fleet.
Nets and lines.	1 to 25 miles off.						
Nets, lines, and crab creels.	1 to 35 miles off.						
Lines.	2 to 6 miles off.	151	91	.	Haddocks.	.	Practically no fishing carried on. Fishermen prosecuted their calling from the large centres. The number of steam drifters was increased by three. Boat-builders were moderately busy, and are likely to be so for some time.
Nets, lines, and crab creels.	1 to 25 miles off.	22,546	10,704	478	Herrings, cod, haddocks, and plaice.	2	Principally a line and cod net fishing station. There is an increase in quantity and value, chiefly in cod.

Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1911.		Decrease from 1911.				
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
<i>Banff District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Portsoy (Banffshire)	19	841	2	26	10	42	13	20	44	929	.	.	2	89	.	118	.
Sandend „	10	366	.	.	16	57	9	18	35	441	.	.	3	86	.	80	.
Totals	197	6,863	11	148	101	404	104	169	413	7,584	.	53	16	365	5	1,435	4
<i>Buckie District.</i>																	
Cullen	54	2,142	.	.	12	43	3	5	69	2,190	.	.	6	163	.	253	15
Portknockie	80	2,815	.	.	10	39	8	13	98	2,867	.	.	4	286	.	414	23
Findochty	92	3,326	.	.	14	40	20	35	126	3,401	.	27	.	.	.	478	27
Portessie	60	1,913	1	15	16	65	.	.	77	1,993	1	.	.	160	.	355	26
Buckie	194	5,997	2	22	29	135	.	.	225	6,154	7	86	.	.	.	1,136	107
Portgordon	63	1,960	.	.	26	92	2	5	91	2,057	3	.	.	8	.	339	46
Totals	543	18,153	3	37	107	414	33	58	686	18,662	11	113	10	617	.	2,975	244
<i>Findhorn District.</i>																	
Lossiemouth	89	2,772	2	36	13	110	6	15	110	2,933	.	.	3	230	.	656	58
Hopeman	46	1,680	.	.	10	70	.	.	56	1,750	.	.	2	78	.	365	18
Burghhead	39	1,365	.	.	16	83	3	6	58	1,454	.	.	.	51	.	226	16
Findhorn	.	.	.	.	.	.	2	4	2	4	.	.	.	.	.	10	.
Nairn	39	1,261	.	.	25	120	7	17	71	1,398	.	.	3	73	1	335	27
Campbeltown	.	.	.	.	9	50	2	4	11	54	.	.	2	13	.	48	.
Inverness	2	65	.	.	.	.	1	2	3	67	2	35	.	.	.	10	1
Totals	215	7,143	2	36	73	433	21	48	811	7,660	2	35	10	445	1	1,650	120
<i>Cromarty District.</i>																	
Avoch (Ross-shire)	18	691	.	.	48	304	12	26	78	1,021	.	.	4	86	2	304	.
Cromarty and Invergordon	1	34	.	.	9	27	23	41	33	102	.	.	4	13	1	132	.
Nigg	.	.	.	.	.	.	5	8	5	8	.	.	1	1	1	9	.

\* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
Nets and lines. Lines.	1 to 25 miles off. 1 to 6 miles off.	2,985	1,287	.	Herrings, cod, and haddocks. Cod and haddocks.	2	Fishing less successful than last year. The falling off was mostly in herrings. Only line fishing prosecuted. Results better than those of last year.
		2,273	1,158	.		1	
		63,824	28,065	587		19	
Nets and lines.	Moray Firth.	1,361	609	.	Codlings and haddocks.	1	The majority of the fishermen are employed exclusively at herring fishing for the greater part of the year at the various centres in Scotland, England, and Ireland. Line fishing is carried on by the older fishermen, who are employed more or less all the year round.
"	"	2,672	1,505	10	"	3	" " " "
"	"	5,228	2,105	9	"	2	" " " "
"	"	65,941	25,089	3	Herrings, cod, haddocks, and other kinds of white fish.	6	" " " "
"	"	3,378	1,494	17	Codlings.	.	" " " "
		78,580	30,802	39		12	
Nets, lines, and creels.	Moray Firth.	42,210	18,129	12	Herrings, cod, and haddocks.	8	Considerable increase in landings of white fish, due chiefly to the improvement in the cod net fishing. Fishermen employed mainly at herring fishing at the principal stations around the coast.
"	"	5,975	2,713	.	Cod and haddocks.	.	
Nets and lines.	"	6,833	2,930	.	Herrings, cod, and haddocks.	1	Decrease in output of mussels.
Lines.	"	320	162	231	Haddocks and mussels.	.	
Nets and lines.	"	5,519	4,022	.	Haddocks, codlings, and plaice.	.	Slight decrease in haddocks. Majority of fishermen employed at herring fishing at the principal stations.
"	"	1,047	739	.	Haddocks, flounders, and plaice.	.	Results similar to last year's.
Nets.	Inverness and Beaulie Firths	29,183	5,705	.	Herrings and sprats.	4	Considerable decrease in quantity of herrings and sprats, but only slight decrease in value.
		91,087	34,400	243		13	
Drift nets, small lines, and cod nets.	Inverness, Beaulie, and Moray Firths.	717	386	52	Codlings and haddocks.	.	Fishermen prosecute drift net fishing for two-thirds of the year at the chief herring fishing centres. A number find berths on board steam vessels registered in other districts. Between 40 and 50 crews fished in local waters with 2nd class boats for sprats and small herrings. The quantity of fish landed at the port bears no relation to the catching power.
Small and hand lines and drift nets.	Cromarty and Dingwall Firths, and 1 to 8 miles off Sutors.	9,725	6,202	393	Codlings, haddocks, and plaice.	1	Operations in home waters practically confined to small line fishing. The catch was well up to the average of recent years. A number of the able-bodied men hire themselves for herring fishing at the chief ports.
Small and hand lines.	Off Sutors.	.	.	.	.	.	



Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unmanned.	Resident Fishermen and Boys.	* Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1911.	Decrease from 1911.						
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
<i>Cromarty District—contd.</i>																	
Shandwick . . . . .	.	.	.	.	1	3	1	3	2	6	1	3	.	.	.	15	.
Balintore . . . . .	.	.	.	.	2	4	5	10	7	14	.	.	.	.	.	40	.
Hilton . . . . .	.	.	.	.	.	.	17	39	17	39	.	.	2	4	1	78	.
Rockfield . . . . .	2	60	.	.	.	.	3	7	5	67	.	.	1	4	.	18	.
Portmahomack . . . . .	.	.	.	.	4	13	2	5	6	18	.	.	.	.	.	21	.
Inver . . . . .	1	46	.	.	3	18	.	.	4	64	.	.	.	.	.	19	.
Tain and Tarlogie . . . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Totals . . . . .	22	831	.	.	67	369	68	139	157	1,339	1	3	12	108	5	636	.
<i>Helmsdale District.</i>																	
Embo (Sutherlandshire) . . . . .	6	136	.	.	12	48	4	8	22	192	.	.	1	2	.	130	.
Golspie „ . . . . .	4	92	.	.	9	44	8	15	21	151	3	6	.	.	3	50	.
Brora „ . . . . .	2	54	.	.	6	30	6	10	14	94	.	.	1	25	1	44	.
Portgower „ . . . . .	.	.	.	.	1	5	1	2	2	7	.	.	.	.	.	8	.
Helmsdale „ . . . . .	10	228	.	.	10	50	28	56	48	334	2	.	.	18	.	106	.
Dunbeath (Caithness-shire) . . . . .	2	45	2	30	5	21	11	22	20	118	.	.	1	15	.	28	.
Totals . . . . .	24	555	2	30	43	198	58	113	127	896	5	6	3	60	4	366	.
<i>Lybster District.</i>																	
Latheronwheel (Caithness-shire) . . . . .	.	.	1	14	3	18	5	12	9	44	.	.	1	7	.	27	.
Forse „ . . . . .	.	.	1	16	.	.	3	8	4	24	.	.	.	.	.	14	.
Lybster „ . . . . .	1	48	4	62	1	6	7	17	13	133	1	4	.	.	.	65	.
Clyth „ . . . . .	1	43	.	.	.	.	10	22	11	65	1	.	.	1	.	34	.
Totals . . . . .	2	91	6	92	4	24	25	59	37	266	2	4	1	8	.	140	.
<i>Wick District.</i>																	
Whalgie and Sarclet (Caithness-shire) . . . . .	2	51	.	.	.	.	8	16	10	67	.	.	1	16	.	57	.
Wick „ . . . . .	67	2,312	3	28	9	31	11	22	90	2,393	.	.	1	50	.	420	30
Boathaven and Staxigoe „ . . . . .	2	95	1	18	2	13	7	14	12	140	.	51	.	.	.	28	.
Ackergill „ . . . . .	.	.	.	.	4	12	5	10	9	22	1	.	.	.	.	16	.
Keiss and Nybster „ . . . . .	2	50	.	.	2	7	12	24	16	81	.	.	1	3	.	42	.

\* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
} Small and hand lines. } Lines and crab creels. Small lines.	2 to 12 miles E. by S.	4,753	1,702	.	Codlings and haddocks.	1	Results of small-line fishing satisfactory, though not equal to those of the preceding year. A number of men were absent from all the creeks for a considerable period at herring fishing. Slight increase both in cod and haddocks. Of little importance as a fishing creek. Part of the catch landed at Portmahomack. Mussels the only fishery product. Output diminished within recent years.
	Dornoch Firth, and 1 to 15 miles off Tarbat Ness.	3,632	1,421	115	Codlings, haddocks, and plaice.	1	
	1 to 10 miles E. by N.E. from Inver.	19	11	.	Flounders.	.	
	.	.	.	39	Mussels.	.	
		18,846	9,722	509			3
Lines.	1 to 5 miles off.	2,706	1,341	27	Haddocks and plaice.	2	Decrease in plaice, but considerable increase in haddocks. Increase in quantity and value of line fish and mussels. Results show improvement on previous years. Fish landed at this creek are carted to Helmsdale and sold. Returns show a considerable falling-off. An increase in quantity and value of fish landed.
Lines and cod nets.	"	5,958	2,271	135	Cod, haddocks, and plaice.	1	
Lines.	"	2,014	796	23	Cod and haddocks.	1	
"	"	.	.	.	"	.	
Lines and crab creels.	1 to 8 miles off.	10,840	3,393	252	"	4	
Nets and lines.	1 to 15 miles off.	2,067	717	50	"	.	
		23,585	8,518	487			8
Drift nets, lines, and crab creels Nets and lines. Drift nets, lines, and crab creels Lines.	1 to 6 miles off.	640	160	25	Codlings, lobsters, and crabs.	.	Considerable decrease in white fish. Increase in crabs. Decrease in herrings. The landings of cod and haddocks were, however, well maintained. Slight decrease in quantity of fish landed.
	Inshore grounds.	.	.	.	Codlings.	{	
	1 to 10 miles off.	4,494	1,406	12	Herrings, codlings, and haddocks.	1	
	1 to 3 miles off.	1,345	270	.	Codlings.	.	
		6,479	1,836	37			1
Lines and crab creels. Drift nets, cod nets, and lines. Drift nets, lines, and crab creels. "	1 to 5 miles off.	552	138	98	Cod and crabs.	.	Little change from preceding year. Quantity and value of herrings landed an easy record for the port. Considerable increase also in cod. Substantial increase in white fish. Decrease in shell fish. Little change from 1911. White fishing shows a slight increase. Shell fishing not so successfully prosecuted owing to the prevalence of unfavourable weather.
	1 to 4 miles off, and 12 to 45 miles E. by N. to E.S.E.	617,050	229,506	.	Herrings, mackerel, cod, ling, and saithe.	55	
	1 to 5 miles off.	1,421	347	20	Cod, lobsters, and crabs.	.	
	Sinclair Bay.	918	241	43	Cod, haddocks, lobsters, and crabs.	.	
"	Sinclair Bay and along the coast.	933	548	825	"	.	

Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	* Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1911.		Decrease from 1911.					
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.			No.	Ton.	No.	Ton.	No.			
<i>Wick District—continued.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Auckingill and Frewick (Caithness-shire)	.	.	.	.	.	.	17	34	17	34	.	.	.	.	.	40	.
Stroma	4	145	.	.	2	6	43	109	49	260	1	20	.	.	.	80	.
Duncansbay and Huna	.	.	.	.	.	.	18	36	18	36	.	.	1	34	.	55	.
Gills and Mey	1	42	.	.	.	.	10	25	11	67	.	.	2	5	.	32	.
Scarfskerry and Ham	.	.	.	.	.	.	9	20	9	20	.	.	.	2	.	18	.
Brough and Dunnett	.	.	.	.	.	.	9	20	9	20	.	.	.	2	.	20	.
Castlehill and Murkle	.	.	.	.	.	.	4	8	4	8	.	.	1	2	.	10	.
Thurso and Scrabster	.	.	1	18	5	18	13	26	19	62	.	.	5	54	.	60	.
Crosskirk and Brims	.	.	.	.	1	2	2	5	3	7	.	.	.	.	.	6	.
Sardside	.	.	.	.	.	.	3	7	3	7	.	.	.	.	.	8	.
Portskerra (Sutherlandshire)	.	.	.	.	.	.	11	22	11	22	.	.	.	.	.	45	.
Strathpoint and Armadale	.	.	.	.	1	3	9	18	10	21	.	.	.	.	.	23	.
Kirtomy and Farr	.	.	.	.	.	.	5	10	5	10	.	.	1	20	.	30	.
Skerry	.	.	.	.	.	.	5	10	5	10	.	.	.	2	.	37	.
Scullomy	.	.	.	.	.	.	2	5	2	5	.	.	.	.	.	9	.
Isle Roan	1	37	.	.	.	.	5	12	6	49	1	37	.	.	.	22	.
Talmine and Portvasgo	.	.	.	.	.	.	8	18	8	18	.	.	.	2	.	45	.
Eriboll and Rispond	.	.	.	.	.	.	16	36	16	36	.	.	.	.	.	40	.
Totals	79	2,732	5	64	26	92	232	507	342	3,395	3	108	13	192	.	1,143	30
<i>Orkney District.</i>																	
North Ronaldshay	.	.	.	.	.	.	16	17	16	17	.	.	.	.	.	34	.
Sanday	.	.	.	.	.	.	30	38	30	38	4	6	.	.	.	60	.
Westray and Papa	1	36	.	.	4	21	38	76	43	133	.	.	16	32	1	144	.
Eday and Pharay	.	.	.	.	.	.	24	30	24	30	.	.	.	.	12	55	.
Stronsay	9	379	.	.	.	.	23	38	32	417	1	3	.	.	.	54	.
Shapinshay	.	.	.	.	.	.	6	9	6	9	.	.	1	1	.	15	.
Rousay, Eglshay, and Viera	.	.	.	.	.	.	8	10	8	10	.	.	.	.	.	20	.
Evie and Birsay	.	.	.	.	.	.	12	14	12	14	.	.	.	.	4	30	.
Kirkwall	2	79	3	46	3	13	16	40	24	178	.	.	6	38	.	48	.
Tankerness and Deerness	2	100	.	.	.	.	8	9	10	109	.	.	2	3	.	20	.

\* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks
		Cwts.	£				
Lines, and creels.	2 to 8 miles off.	777	194	27	Cod, lobsters, and crabs.	1	Increase in cod. Decrease in lobsters and crabs.
Hand lines and creels.	Near the Pentland Skerries.	5,926	1,250	178	Cod and lobsters.	1	Satisfactory increase in cod. Decrease in lobsters.
"	"	508	203	79	"	.	Little change in white fish. Decrease of nearly 50 per cent. in lobsters and crabs.
"	1 to 4 miles off.	.	.	.	"	.	
"	1 to 6 miles off.	1,186	339	314	Cod, lobsters, and crabs.	.	
"	2 to 5 miles off.	.	.	.	"	.	
Nets and hand lines.	1 to 4 miles off.	57	29	.	Cod and saithe.	.	These creeks are of little importance. The total landings are under those of 1911.
Drift nets, lines, and creels.	2 to 8 miles off.	4,546	1,701	589	Herrings, cod, ling, haddocks, lobsters, and crabs.	3	Increase in herrings, white fish, lobsters, and crabs.
Lines and creels.	Along the coast.	115	30	124	Cod, lobsters, and crabs.	.	Little change from 1911.
"	Sandside Bay.	473	119	283	Cod, haddocks, lobsters, and crabs.	.	Decrease in cod and lobsters.
"	Along the coast.	2,088	517	347	Cod, haddocks, lobsters, and crabs.	.	Decrease in all classes of white and shell fish.
"	"	.	.	.	"	.	Fishing operations to some extent neglected at these creeks during the past two years.
"	"	164	32	89	Cod, haddocks, and lobsters.	.	
"	"	1,046	280	94	Haddocks and lobsters.	.	In this locality fishing is declining. Fishermen are chiefly employed at the herring fishing, as hired hands on East Coast craft.
"	"						
"	Around the island.	404	109	86	Cod, haddocks, and lobsters.	.	Results similar to those of 1911.
"	Along the coast.	740	148	68	Haddocks and lobsters.	.	Fishermen are not now prosecuting the fishing so vigorously at home. Decrease in haddocks.
"	"	2,811	810	1,063	Cod, haddocks, flounders, and lobsters.	.	Increase in white fish and lobsters, particularly the latter.
		641,765	236,541	4,327	59		
Lines and creels.	Inshore.	11,371	4,453	502	Lobsters.	.	Crofter fishermen; lobster fishing chiefly prosecuted.
"	"				1,101	374	367
"	"	304	86	285	Cod and lobsters.	1	Crofter fishermen; chiefly lobster fishing prosecuted.
Nets and creels.	8 to 60 miles E.S.E. to S.E. by S.	435,032	181,005	250	Lobsters.	.	Principal herring curing station in district, and increasing rapidly in importance.
"	"	986	310	.	Herrings and lobsters.	17	
Lines and creels.	Strossay Firth and inshore.	85	37	73	Cod.	1	Practically all white fish landed by trawlers for curing purposes.
"	"	641	275	.	Lobsters and cod	.	Fisheries unimportant.
"	"	48,632	18,324	1,142	"	7	
"	"				Herrings and cod.	.	Local fishermen employed at line fishing throughout the year. Considerable quantities of cod landed by trawlers and Faroe smacks for curing purposes. Herrings all landed by stranger fishermen.
Nets, lines, and creels.	10 to 40 miles S.E. and inshore.	226	101	215	Lobsters and cod	.	Crofting districts. Fishermen prosecute herring fishing at other creeks.



Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unanchored.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1911.		Decrease from 1911.					
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
<i>Orkney District—contd.</i>																	
Holm . . . . .	1	34	.	.	1	3	2	4	4	41	.	.	1	2	.	15	.
Burray . . . . .	14	473	.	.	1	4	5	8	20	485	.	.	.	7	.	98	.
Orphir and Scapa . . . . .	.	.	.	.	1	17	11	20	12	37	.	10	1	.	.	33	.
Stronness . . . . .	.	.	.	.	.	.	23	45	23	45	2	11	.	.	.	44	.
Hoy and Gramesay . . . . .	1	25	.	.	.	.	11	16	12	41	.	.	1	1	2	38	.
Walls . . . . .	3	100	.	.	.	.	16	20	19	120	.	.	.	.	.	55	.
Flotta . . . . .	1	26	.	.	.	.	15	20	16	46	.	.	.	.	.	50	.
Phara and Cara . . . . .	1	20	.	.	.	.	2	4	3	24	.	.	.	.	.	9	.
Swona . . . . .	.	.	.	.	1	5	4	11	5	16	2	8	.	.	.	15	.
South Ronaldshay . . . . .	9	286	1	11	2	7	20	35	32	339	1	17	.	.	.	90	.
Totals . . . . .	44	1,558	4	57	13	70	290	464	351	2,149	10	55	23	84	19	927	.
<i>Shetland District.</i>																	
Fair Isle . . . . .	.	.	.	.	.	.	6	6	6	6	.	.	1	1	.	25	.
Grutness . . . . .	7	307	.	.	.	.	9	9	16	316	.	.	.	.	.	57	.
Quendale . . . . .	6	249	.	.	.	.	5	5	11	254	.	.	.	.	.	52	.
Boddam . . . . .	.	.	.	.	2	10	3	3	5	13	.	.	.	.	.	42	.
Spiggie . . . . .	1	36	.	.	.	.	4	4	5	40	.	.	.	.	.	48	.
Levenwick . . . . .	10	360	.	.	.	.	4	4	14	364	2	2	.	.	.	70	.
Hoswick . . . . .	17	724	.	.	.	.	6	9	23	733	2	123	.	.	.	99	.
Sandsair . . . . .	6	234	.	.	.	.	5	5	11	239	.	.	4	152	.	70	.
Aithsvoe . . . . .	4	127	.	.	.	.	7	7	11	134	.	.	1	45	.	60	.
Bressay . . . . .	.	.	.	.	.	.	14	14	14	14	.	.	.	.	.	40	.
Lerwick . . . . .	35	1,365	4	56	24	168	22	22	85	1,611	.	.	7	53	.	437	.
Nesting . . . . .	1	36	.	.	.	.	4	4	5	40	.	.	.	.	.	28	.
Whalsay . . . . .	25	866	.	.	2	8	20	20	47	894	.	97	.	.	.	175	.
Skerries . . . . .	1	22	.	.	2	16	5	5	8	43	1	9	.	.	.	30	.
Vidlin . . . . .	1	25	.	.	.	.	4	4	5	29	.	.	1	20	.	30	.
Burraoie . . . . .	1	58	.	.	.	.	3	3	4	61	.	.	.	.	.	24	.
Gossaborough . . . . .	.	.	.	.	.	.	3	3	3	3	.	.	.	.	.	15	.
Mid Yell . . . . .	3	155	.	.	2	8	9	9	14	172	.	14	2	.	.	60	.
Gutcher and Cullivoe . . . . .	4	139	.	.	.	.	15	15	19	154	.	.	.	.	.	65	.
Fetlar . . . . .	.	.	.	.	.	.	3	3	3	3	.	.	.	.	.	12	.
West Sandwick . . . . .	.	.	.	.	.	.	6	6	6	6	.	.	.	.	.	24	.
Westing and Snarraoie . . . . .	.	.	.	.	.	.	8	8	8	8	.	.	.	.	.	30	.
Uyasound . . . . .	1	25	.	.	.	.	4	4	5	9	.	.	.	.	.	33	.
Muness and Colvidale . . . . .	.	.	.	.	.	.	3	3	3	3	.	.	.	.	.	9	.
Baltasound . . . . .	10	350	.	.	.	.	3	3	13	383	.	.	.	.	2	45	.
Haroldswick . . . . .	.	.	.	.	.	.	6	8	8	8	.	.	2	2	.	32	.
Norwick . . . . .	.	.	.	.	.	.	8	8	8	8	.	.	.	.	.	28	.
Burrafirth . . . . .	.	.	.	.	.	.	6	6	6	6	.	.	.	.	.	16	.

\* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
Nets, lines, and creels.	10 to 40 miles S.E. and inshore.	35,801	13,544	45	Herrings.	4	Landings practically confined to herrings landed by stranger boats.
Nets and lines.	"	23,175	9,027	.	"	4	Crofter fishermen. Fourteen local crews prosecuted great summer herring fishing with fair success.
Lines and creels.	Inshore.	1,116	409	122	Cod and lobsters.	1	Results similar to last year's.
"	1 to 10 miles S.W.	4,440	1,336	1,009	"	2	Local fishermen engaged in line and lobster fishing.
"	Scapa Flow and inshore.	1,344	336	780	"	.	Crofter fishermen; lobster and hand-line fishing prosecuted with fair success. Herring fishing prosecuted from Holm and Burray with satisfactory results.
"	"	2,335	607	75	"	.	
"	"	.	.	.	"	.	
"	"	.	.	.	"	.	
Nets, lines, and creels.	15 to 30 miles off.	3,751	1,210	154	"	.	
		570,430	231,434	5,023		33	
Lines.	Close inshore.	10,466	3,845	.	Principally herrings and great-line fish.	1	Increase in quantity and value of herrings landed, but slight decrease in line fish.
Nets and lines.	1 to 60 miles off.					1	
"	"					2	
"	"					2	
"	"	82,898	29,758	.	"	9	The herring fishing was vigorously and successfully prosecuted at these stations, but owing to a falling off in the landings of line-fish the general results show a decrease as compared with last year.
"	"	543	98	.	Chiefly hand and small line fish.	.	Boats belonging to section land most of their fish at Howick. Only small line and hand line fish landed here.
"	"					.	
Lines.	Inshore.	122,256	465,019	306	General — herrings, mackerel, great-line fish, and haddocks.	40	Very successful herring fishing season, increase of 25 per cent. in value constituting record for station. Considerable increase in quantity and value of cod, ling, etc., but slight decrease in quantity and value of haddocks.
Nets and lines.	1 to 90 miles off.					1	
"	1 to 40 miles off.	16,024	5,315	.	Herrings, great-line fish, and haddocks.	1	Decrease in herrings and great line fish except halibut; slight increase in quantity and value of haddocks landed.
"	"					1	
"	"	1,131	234	.	Principally saithe and haddocks.	1	General decrease in all branches
Lines.	Inshore.					1	
Nets and lines.	"					1	
"	"					1	
Lines.	"	3,508	826	.	Principally herrings.	1	General results same as last year's.
Nets and lines.	1 to 40 miles off.					1	
Lines.	Inshore.	63,523	14,060	.	Herrings, great-line fish, and haddocks.	14	Decrease in quantity and value of herrings. Returns from line fishing about same as last year's.
Nets and lines.	1 to 60 miles off.					1	
Lines.	Inshore.					.	
"	"					.	

Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1911.	Decrease from 1911.	No.	No.	No.			
	45 feet keel and upwards.	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.	No.	Ton.	No.	Ton.									
<i>Shetland District—contd.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.
Fethaland and Sandvoe . . . . .	.	.	.	.	.	.	6	6	6	6	.	.	1	1	.	25	.
Northroe . . . . .	.	.	.	.	.	.	3	3	3	3	.	.	.	.	.	15	.
Ollaberry . . . . .	.	.	.	.	.	.	5	5	5	5	.	.	1	1	.	18	.
Dalesvoe . . . . .	.	.	.	.	.	.	3	3	3	3	.	.	.	.	.	12	.
Mossbank . . . . .	.	.	.	.	.	.	5	5	5	5	.	.	.	.	.	21	.
Ronasvoe . . . . .	.	.	.	.	.	.	4	5	4	5	1	2	.	.	.	15	.
Stennis . . . . .	.	.	.	.	.	.	9	9	9	9	.	.	.	.	.	40	.
Hillswick and Brae . . . . .	.	.	.	.	.	.	10	10	10	10	.	.	.	.	.	50	.
Voe and Papa . . . . .	1	64	.	.	.	.	20	20	21	84	.	.	.	.	.	75	.
Sandness . . . . .	.	.	.	.	.	.	8	8	8	8	.	.	.	.	.	36	.
Foula . . . . .	.	.	.	.	.	.	12	12	12	12	4	4	.	.	.	40	.
Vaila Sound . . . . .	1	33	.	.	.	.	10	10	11	43	.	.	.	.	.	50	.
Sand . . . . .	.	.	.	.	.	.	5	5	5	5	.	.	.	.	.	25	.
Skeld and Raewick . . . . .	.	.	.	.	.	.	6	6	6	6	.	.	.	.	.	30	.
Whiteness and Burwick . . . . .	4	178	.	.	.	.	11	11	15	189	.	.	.	.	.	68	.
Scalloway . . . . .	7	233	1	9	10	92	10	15	28	349	.	25	1	.	100	.	
Burra Isle . . . . .	24	883	1	11	8	76	24	32	57	1,002	1	.	26	.	172	.	
Oxna Isle, Linga, etc. . . . .	1	50	.	.	.	.	7	9	8	59	1	50	.	.	21	.	
Trondra . . . . .	2	104	.	.	.	.	9	12	11	116	1	27	.	.	42	.	
South Havara . . . . .	1	34	.	.	.	.	2	2	3	36	.	.	.	.	7	.	
Totals, . . . . .	174	6,687	6	76	50	378	366	388	596	7,529	13	363	21	301	2	2,518	.
<i>Stornoway District.</i>																	
<i>SOUTH LOCHS SECTION.</i>																	
Arivruaich to Lemreway (Lewis, Ross-shire)																	
Gravir . . . . .	4	140	7	126	36	216	13	33	60	515	.	.	1	41	.	412	.
Colbost . . . . .																	
Marvaig . . . . .																	
Cronore . . . . .																	
Garryvard to Keose . . . . .																	
<i>NORTH LOCHS SECTION.</i>																	
Luerbost (Lewis, Ross-shire)																	
Crossbost . . . . .	8	280	5	90	24	144	5	13	42	527	.	.	3	16	.	296	.
Ranish . . . . .																	
Grimshader . . . . .																	
<i>STORNOWAY SECTION.</i>																	
Stornoway (Lewis, Ross-shire)																	
Sandwick . . . . .	5	177	2	36	9	54	5	13	21	280	.	.	4	57	.	66	.
Holm . . . . .																	
Melbost and Stenish . . . . .																	
<i>GARRABOST SECTION.</i>																	
Swordale and Knock (Lewis, Ross-shire)																	
Bayble . . . . .	13	455	1	18	14	84	8	21	36	578	.	.	.	11	.	415	.
Garrabost . . . . .																	
<i>PORTNAGURAN SECTION.</i>																	
Sheshader (Lewis, Ross-shire)																	
Portvoller . . . . .	7	245	1	18	25	150	12	31	45	444	.	.	1	57	.	285	.
Portnaguran . . . . .																	
Shader . . . . .																	
<i>BACK SECTION.</i>																	
Tong (Lewis, Ross-shire)																	
Coll . . . . .	4	140	.	.	17	102	12	31	33	273	.	.	3	32	.	519	.
Vatisker . . . . .																	
Back . . . . .																	
Tolsta . . . . .																	

\* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
Lines.	Inshore.	839	148	.	Herring, saithe, and haddocks.	1	Decrease in quantity and value of herrings landed. Line fishing shows no improvement.
"	1 to 20 miles off.						
"	Inshore.						
"	"						
"	"	2,215	572	31	"	2	Slight revival of herring fishing. Returns from line fishing still rather poor.
Nets and lines.	St. Magnus Bay.						
"	"	2,716	571	3	.	1	Herring fishing again a failure, and haddock fishing neglected; but Foula fishermen did very well at cod fishing.
Lines.	Round the island.						
"	"	61,115	23,329	204	Herrings, haddocks, and great-line fish.	12	Great improvement in herring fishing; great-line and cod net fishing about same as last year. Great decrease in quantity and value of haddocks landed.
Nets and lines.	1 to 40 miles off.						
"	"	1467534	543,775	544		110	
Lines.	1 to 10 miles off.						
"	"						
"	"						
"	1 to 60 miles off.						
Nets and lines.	"	1,908	688	267	Cod, ling, and eels.	.	Crofting district. Boats fishing for sale land their catches at Stornoway.
"	"	3,415	818	162	"	.	" " "
"	"	298,978	109,686	381	Herrings.	35	Excellent herring fishing, of fine quality, during summer and autumn months.
"	Broadbay and the Minch.	2,737	679	310	Haddocks.	1	Small craft fish locally for home consumption. The larger-sized boats fish chiefly from Stornoway.
"	"	3,621	1,205	18	Cod, ling, and haddocks.	1	" "
Nets and small lines	Broadbay.	2,335	923	5	Haddocks.	.	The larger-sized boats work from Stornoway. Small craft fish in Broadbay for home supplies.



Station or Creek	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unmanned.	Resident Fishermen and Boys.	* Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1911.		Decrease from 1911.				
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
<i>Stornoway District—contd.</i>																	
NESS SECTION.																	
Skegersta (Lewis, Ross-shire)	.	.	.	.	26	156	22	56	48	212	1	.	.	2	17	592	.
Port of Ness	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Borve	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Shader-West	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
SHAWBOST SECTION.																	
Barvas (Lewis, Ross-shire)	.	.	2	36	10	60	7	18	19	114	.	.	3	10	.	350	.
Brue	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Arnol	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Bragar	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Shawbost	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
CARLOWAY SECTION.																	
Carloway (Lewis, Ross-shire)	.	.	4	72	12	72	6	16	22	160	.	.	4	52	.	296	.
Tolstachullish	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Breacleite	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Callanish	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
BERNERA SECTION.																	
Lundale to Earshader (Lewis, Ross-shire)	.	.	1	18	30	180	6	16	37	214	.	.	.	.	.	162	.
Tobson	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Valsey	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Breacleite & Hacklet	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Kirkibost	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
VALTOS SECTION.																	
Valtos and Kneep (Lewis, Ross-shire)	.	.	3	54	8	48	4	11	15	113	.	.	5	43	.	139	.
Uigan and Arduig	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Croulista	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Islivaig, Breanish, & Loch Hamnevy	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
NORTH HARRIS SECTION.																	
Cluer to Grozabay (Harris, Inverness-shire)	.	.	1	18	48	288	22	57	71	363	.	43	1	.	.	247	.
Scadabay	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Plockropool	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Drinnishader	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Meavig	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Derriclate	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Taraisay Island	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Scarp	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Ardhasaig	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Tarbert and Urgha	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Kyles of Scalpay	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Mollinganish	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Renniegdele	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Marvaig and Ardvourlie	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
SCALPAY SECTION.																	
Scalpay and Scotasy Islands (Harris, Inverness-shire)	.	.	3	54	29	174	9	23	41	251	2	49	.	.	.	104	.
SOUTH HARRIS SECTION.																	
Obbe to Kintillvaig (Harris, Inverness-shire)	.	.	.	.	58	348	21	56	79	404	1	.	.	4	.	199	.
Strond	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Finsbay	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Cudinish	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Flodabay	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Manish	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Geocrab & Licisto	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Stockinish & Lochlee	"	"	"	"	.	.	.	.	.	.	.	.	.	.	.	.	.
Totals	41	1,437	30	540	346	2,076	152	395	569	4,448	4	92	25	325	17	4,082	.

\* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
Great lines.	The Minch and off the Butt of Lewis.	4,488	1,364	.	Ling fish.	1	Fishing for sale almost at a standstill. A number of boats remained unlaunched during the year.
„	Atlantic side of the Island of Lewis.	706	137	71	Cod and saithe.	.	Fishing occasionally for local use only. Lobsters were fished for sale.
Nets and great lines.	Loch Roag and off Loch Roag, 15 to 20 miles.	26,686	7,771	236	Ling fish.	3	Creek fairly prosperous as a line fishing station.
Lines and lobster creels.	„	2,652	598	1,076	Cod, ling, and lobsters.	3	Fishing for curing for sale has been on the decline for a few years. Lobsters show a slight increase.
„	„	1,231	306	23	„	4	A slight increase in line and shell fish as compared with 1911.
Nets and lines.	The Minch, and sea lochs.	1,372	383	514	Herrings and lobsters.	2	Herrings of good quality were occasionally landed from June to August.
„	The Minch.	10,119	4,407	496	Herrings.	5	Considerable quantities of herrings were brought into Scalpay from Loch Snizort, Skye district, for curing for export.
„	„	7,440	1,575	1,050	Herrings and lobsters.	6	Increase in both herrings and lobsters.
		367,688	130,540	4,609		61	

Station or Creek.	Fishing Boats and Vessels belonging to Creek.											Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.					
	1st Class (including Steam Trawlers).		2nd Class.		3rd Class.		Total.	Increase on 1911.	Decrease from 1911.										
	45 feet keel and upwards	30 to 45 feet keel.	18 to 30 feet keel.	Under 18 feet keel.															
<i>Barra District.</i>																			
Boreray . . . . .					3	12	3	6	6	18			1	3		17			
Berneray . . . . .					12	48	1	2	13	50			1	4		40			
Hougharry to Locheport . . . . .					6	24	4	8	10	32		4				39			
Grimsay . . . . .					18	72	5	10	23	82		21				43			
Heisker . . . . .					4	16	2	4	6	20		9				16			
Benbecula . . . . .					8	32	14	28	22	60		15		1		53			
Loch Carnan . . . . .					1	16	15	60	25	50		41	126		4	11	96		
Loch Skipport . . . . .					1	16	4	16	5	10		10	42		2	19		30	
Loch Boisdale . . . . .	1	32	3	48	17	68	28	56	49	204	1	24				138			
Eriskay . . . . .			18	289	13	52	9	18	40	359		21				156			
Bruernish . . . . .			14	224	8	32	4	8	26	264			3	80		80			
Ault and Ersary . . . . .			3	48	1	4	5	10	9	62	3	14				48			
Brevig and Skallary . . . . .	1	28	3	48	3	12	1	2	8	90		12	2			35			
Castlebay . . . . .	1	43	18	288	7	28	3	6	29	365	1	15				180			
Mingulay . . . . .			1	16	1	4	2	4	4	24	1			21		10			
Totals . . . . .	3	103	62	993	120	480	111	222	296	1,798	8	135	14	138		981			
<i>Loch Broom District.</i>																			
CAPE WRATH TO LAXFORD.																			
Poulin . . . . .							3	8	3	8						14			
Oldshoremore and Oldshorebeg . . . . .					1	3	14	36	15	39			1	2		35			
Kinlochbeviè . . . . .					1	5	3	5	4	10		3				6			
Badcall and Achriskill . . . . .							11	21	11	21			1	2		25			
Ardmore . . . . .							3	8	3	8						6			
LAXFORD TO BADCALL.																			
Findlemore and Fanagmore . . . . .							7	10	7	10			1	1		11			
Tarbert and Scourie . . . . .			1	18			10	20	11	38			2	31		22			
Badcall . . . . .			1	18			6	12	7	30	1	2				10			
BADCALL TO DRUMBEG.																			
Unapool (Glendhu) . . . . .							4	7	4	7			1	2		10			
Ardvaar and Nedd . . . . .					1	3	4	8	5	11						10			
DRUMBEG TO CULKEIN.																			
Drumbeg . . . . .					1	4	1	2	2	6						5			
Culkein (Drumbeg) . . . . .			1	8			7	13	8	21						14			
Clashnessie . . . . .	1	36			1	5	2	4	4	45						10			
Achnacariòn . . . . .																11			
CULKEIN TO INVERPOLLY.																			
Culkein (Stoer) . . . . .							2	4	2	4	1	2				20			
Raffan and Balnacladich . . . . .							9	21	9	21				2	3	52			
Clachtoll . . . . .														1	3	20			
Achmelvich . . . . .	1	45					3	4	4	49				1	2	22			
Lochiver and Strathan . . . . .	1	34			2	14	6	11	9	59				1	9	22			
Badnadan and Inverkirkaig . . . . .							4	9	4	9						15			

\* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.	
		Cwts.	£					
Nets, lines, and lobster creels.	Sound of Harris and vicinity of islands.	231	59	691	Lobsters.	.	Slight improvement in landings of white fish. Lobster fishing compares favourably with the previous year.	
		The Minch, inshore.	1,817	355	1,799	"	.	Slight decrease in both white fish and shell fish.
	The Minch and sea lochs.		402	67	403	Mackerel and lobsters.	.	Returns similar to the previous year's.
		"	211	94	52	Herrings and lobsters.	.	Decrease in quantity and value of herrings landed. Lobster fishing similar to that of 1911
	"	9,266	4,577	757	Cod and ling.	7	Decline in quantity and value of fish landed. The fishermen of this island generally fish from Castlebay.	
	"	335	114	.		1		
	"	Skerryvore, Coll Bank, and vicinity of Barra.	68,677	32,565	2,440	Herrings, cod, ling, saithe, and lobsters.	.	Decrease of 48 per cent. in quantity and 14 per cent. in value of herrings landed. Increase in cod and ling. Shell fisheries show an increase of 34 per cent. in value.
	1							
	20							
	.							
		80,999	37,831	6,142		30		
Lines and lobster creels.	Minch and Loch Inchard.	406	167	316	Cod, haddocks and lobsters.	.	Slight decrease in landings of white fish and value of shell fish.	
	Minch, Loch Inchard and Cairnbawn.	135	70	457	Haddocks and lobsters.	.	Very little done at line fishing. A further decrease in value of shell fish.	
	Lochs Glendhu and Glencoul.	1,907	939	575	Codlings, haddocks, and lobsters.	.	The quantity and value of white fish again show increases. The value of shell fish increased by £89.	
	Minch and Cairnbawn.	311	125	590	Haddocks and lobsters.	.	Marked increase in quantity and value of white fish, while the value of shell fish is double that of last year.	
Nets, lines, and lobster creels.	Minch, Loch-inver, and Enard Bay.	3,066	808	468	Herrings, cod, saithe, haddocks, and lobsters.	1	Herring fishing was again a failure at this section. Decrease in all kinds of white fish and shell fish.	



Station or Creek.	Fishing Boats and Vessels belonging to Creek.													Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.	
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1911.		Decrease from 1911.				
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
<i>Loch Broom District—continued.</i>																	
COIGACH AND TANERA.																	
Achnahaird and Reif . . . . .	.	.	.	.	2	6	2	5	4	11	.	.	.	.	.	.	12
Altandhu . . . . .	1	35	.	.	3	12	4	9	8	56	.	.	1	4	.	28	
Polbain and Tanera . . . . .	.	.	2	29	13	56	11	21	26	106	.	.	.	4	.	46	
Achiltibuie and Badnecally . . . . .	.	.	.	.	1	5	3	6	4	11	.	.	1	3	.	31	
Polglass and Culnaeraig . . . . .	.	.	2	14	5	33	6	12	13	59	.	.	1	2	.	32	
LOCH BROOM AND ISLEMARTIN.																	
Islemartin and Ardmailr . . . . .	.	.	.	.	2	12	5	11	7	23	.	.	.	.	.	10	
Rhue and Morefield . . . . .	.	.	.	.	.	5	10	5	10	5	.	.	.	.	.	12	
Ullapool . . . . .	.	.	.	.	7	51	10	20	17	71	.	7	1	.	.	40	
Rheroy, Ardendrean, Letters, &c. . . . .	.	.	.	.	11	97	18	40	29	137	.	.	2	4	.	65	
ACHMORE AND LITTLE LOCH BROOM.																	
Achmore and Scorraig . . . . .	.	.	.	.	2	10	12	23	14	33	.	.	.	.	.	28	
Charnock and Badralloch . . . . .	.	.	.	.	.	1	3	1	3	.	.	.	.	.	.	5	
Ardessie and Badcall . . . . .	.	1	.	8	2	11	3	6	6	25	.	.	2	4	.	19	
Durnanuck and Badlurach . . . . .	.	.	.	.	1	6	7	16	8	22	.	.	.	.	.	22	
GRUINARD TO AULTBEA.																	
First and Second Coast . . . . .	.	.	.	.	.	.	1	3	1	3	.	.	.	.	.	7	
Sand and Laid . . . . .	.	.	.	.	2	12	4	10	6	22	.	.	.	.	.	24	
Achgarve and Udrigle . . . . .	.	1	.	7	.	.	.	7	1	7	.	.	1	8	.	12	
Opinin and Mellon Charles . . . . .	.	1	.	9	1	3	3	7	5	19	.	.	1	3	.	48	
Orniscraig and Balnathib . . . . .	.	1	.	8	1	4	5	12	7	24	1	3	.	.	.	16	
Tenefin and Aultbea . . . . .	.	.	.	.	3	25	3	7	6	32	.	.	.	.	.	15	
AULTBEA TO MELVAIG.																	
Poolewe and Nast . . . . .	.	.	.	.	.	.	1	2	1	2	.	.	.	.	.	16	
Inverasdale . . . . .	.	.	.	.	1	9	12	16	13	25	1	9	.	.	.	24	
Cove . . . . .	.	2	.	21	2	20	7	14	11	55	.	3	.	.	.	23	
MELVAIG TO FLOWERDALE.																	
Melvaig . . . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	18	
North Erradale . . . . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	2	
Sand (Gairloch) . . . . .	.	.	.	.	4	19	.	.	4	19	.	.	2	10	.	18	
Strath . . . . .	.	.	.	.	5	24	.	.	5	24	.	.	.	.	.	26	
Charleston . . . . .	.	.	.	.	1	3	1	2	2	5	1	2	.	.	.	4	
FLOWERDALE TO SOUTH POINT OF GAIRLOCH.																	
Badachro . . . . .	1	22	4	48	10	56	2	7	17	133	.	11	.	.	.	18	
Porthenderson . . . . .	.	.	.	.	6	41	.	.	6	41	.	.	.	.	.	32	
South Erradale . . . . .	.	.	1	13	.	.	.	.	1	13	.	.	.	.	.	6	
Red Point . . . . .	.	.	.	.	2	9	.	.	2	9	.	.	.	.	.	10	
Totals . . . . .	5	172	18	201	94	558	225	465	342	1,306	5	42	23	97	.	1,009	

\* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£	£			
Nets, lines, and lobster creels.	Minch and Loch Broom.	1,283	514	536	Herrings, cod and codlings, haddocks, and lobsters.	.	Decrease in quantity and value of white fish and shell fish.
Herring and cod nets, lines and lobster creels.	"	6,309	2,541	70	Herrings, cod and codlings, haddocks and whittings.	6	Herring fishing in this section was again a failure, although the landings show an increase on last year of 1784 cwts. in quantity and £1199 in value. A large number of the fishermen of this section are engaged on board yachts during part of the year.
"	Minch and Loch Broom, and Little Loch Broom.	181	56	103	Herrings and lobsters.	.	A decrease of £126 in value of shell fish.
"	Minch and Loch Ewe.	2,435	819	312	Herrings, cod, haddocks, and lobsters.	2	A decrease of 6381 cwts. in quantity and £1058 in value of white fish, due to failure of herring fishing. Shell fishing shows little change.
"	"	293	85	151	"	.	Results similar to those of 1911.
Herring and cod nets, and lines.	Minch and Gairloch Bay.	418	92	.	Cod and haddocks.	.	Only small and hand line fishing prosecuted from this section. The larger boats land their fish at Badachro.
Herring and cod nets, lines, and lobster creels.	"	10,590	2,604	87	Herrings, mackerel, cod, saithe, eels, and lobsters.	5	The landings during the cod net fishing show an increase, but the herring fishing, which was a failure, shows a falling-off of 6127 cwts. in quantity and £1374 in value. Line fishing and lobster fishing show improvement.
		27,334	8,820	3,665		14	

Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	* Non-Resident Fishermen and Boys.	
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1911.	Decrease from 1911.							
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.											
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.		
<i>Loch Carron and Skye District.</i>																		
Loch Torridon (Ross-shire)	.	.	.	.	12	65	13	19	25	84	.	.	.	.	2	65	.	
Applecross	..	.	1	10	10	70	4	10	15	90	.	7	.	.	1	43	.	
Kishorn	..	.	.	.	6	45	4	7	10	52	1	10	.	.	2	46	.	
Loch Carron	..	.	.	.	18	127	9	19	27	146	.	.	4	.	3	91	.	
Loch Alsh	..	.	.	.	10	41	1	2	11	43	.	.	1	4	.	36	.	
Loch Duich	..	.	.	.	5	21	.	.	5	21	.	.	.	.	2	18	.	
Loch Hourn (Inverness-shire)	..	.	.	.	.	.	16	27	16	27	.	.	1	1	3	34	.	
Sleat	..	.	.	.	30	125	16	37	46	162	.	.	7	26	6	90	.	
Kyleakin	..	1	20	2	72	5	25	.	.	8	117	.	20	.	2	37	.	
Broadford	..	.	.	.	6	35	13	25	19	60	.	.	7	14	4	50	.	
Scalpa Sound	..	.	.	.	4	14	39	66	43	80	.	.	7	18	6	60	.	
Scoucer and Braes	..	.	.	.	1	6	36	66	37	72	.	.	3	7	5	80	.	
Portree,	..	.	.	3	53	9	43	27	51	39	147	.	.	2	13	3	68	.
Staffin	..	.	.	1	7	9	21	1	1	11	29	.	.	.	4	4	30	.
Loch Snizort	..	1	18	.	.	27	124	9	14	37	156	7	40	.	.	90	.	
Watnish	..	.	.	6	76	19	67	4	6	29	149	4	62	.	.	66	.	
Dunvegan	..	.	.	1	8	11	37	5	8	17	53	1	4	.	.	50	.	
Glendale & Bracadale	..	.	.	.	8	23	9	12	17	35	2	2	.	.	2	60	.	
Strathaird	..	.	.	.	2	8	18	35	20	43	.	.	1	4	3	40	.	
Lochs Slapin and Eyshort	..	.	.	.	.	.	19	36	19	36	.	.	3	7	3	60	.	
Isle of Soay	..	.	.	.	3	10	3	8	6	18	.	3	.	.	1	12	.	
Totals	.	2	38	14	226	195	907	246	449	457	1,620	15	148	36	98	52	1,126	.
<i>Fort-William District.</i>																		
Loch Nevis and N. Morar	.	.	.	.	4	15	7	16	11	31	.	.	1	2	3	18	.	
Mallaig and South Morar	.	1	21	2	27	14	49	11	13	28	110	1	5	.	.	6	52	.
Arisaig and Loch Aylort	.	.	.	.	9	46	3	7	12	53	.	.	1	3	4	18	.	
Simisary to Ockle Point	.	.	.	.	7	30	4	7	11	37	.	.	.	.	3	18	.	
Ockle Point to Loch Sunart	.	.	.	.	3	7	6	9	9	16	.	.	3	18	1	26	.	
Lochs Sunart and Aline	.	.	.	.	.	.	1	1	1	1	.	.	.	.	.	3	.	
Loch Eil and Port-William	.	.	.	.	1	2	29	39	30	41	.	.	2	3	4	56	.	

\* Persons from inland centres temporarily engaged in fishing

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
Nets, lines and creels.	Loch Torridon.	839	118	158	Herrings, mackerel, and lobsters.	1	A marked decrease in quantity of fish landed owing to failure of herring fishing.
Lines. Nets, lines, and creels.	Inshore. Between Skye and Mainland	68	11	2	Saithe.	.	Decrease in quantity and value of fish landed.
"	"	2,845	448	301	Codlings, saithe, hake and crabs.	.	increase in quantity and value of fish landed. Fishermen prosecute the herring fishing in the various Skye lochs.
Nets and lines.	"	11,872	3,614	63	Herrings, mackerel, and saithe.	6	Considerable decrease in quantity and value of herrings, owing to failure of autumn herring fishing.
"	Loch Duich.	.	.	.	.	.	Little done at fishing, except when herrings appear in the loch.
Nets, lines, and creels.	Loch Hourne.	207	40	90	Saithe and lobsters.	.	A marked increase in quantity of line-caught fish and lobsters.
"	Inshore.	2,298	933	419	Cod, haddocks, and lobsters.	.	
"	Between Skye and Mainland.	2,985	1,234	719	"	.	Results similar to those of 1911.
"	Inshore.	.	.	.	.	.	
Nets and lines.	"	305	52	60	Cod and saithe.	.	Fisheries unimportant.
"	"	.	.	.	.	.	
Nets and creels.	Between Skye and Mainland.	2,638	571	1,309	Herrings, mackerel, and lobsters.	2	Decrease in herrings, but increase in lobsters.
Lines and creels.	Inshore.	.	.	.	(Saithe, and lobsters.	.	Decrease in quantity of herrings landed, but increase in value.
Nets, lines, and creels.	Loch Snizort.	25,481	8,026	362	Herrings and lobsters.	6	
"	Loch Dunvegan.	10,557	3,182	638	"	2	Increase in value of herrings, but decrease in lobsters.
"	"	.	.	.	.	.	
"	Lochs Pooltiel and Bracadale	13,130	3,752	632	"	3	Marked increase in herrings, owing to the success of the herring fishing in Loch Bracadale.
"	Lochs Slapin and Eyshort.	1,548	368	210	"	.	Increase in quantity and value of herrings.
"	"	.	.	.	.	.	
Creels.	Inshore.	82	14	241	Lobsters.	.	Of no importance as a fishing station.
		74,855	22,413	5,204		22	
Nets and lines.	In loch.	182	59	.	Cod and saithe.	.	While the results show a slight increase, the landings are confined to local requirements, any surplus being landed at Mallaig.
Nets, lines, and creels.	In the various lochs, and Minch.	122,982	42,970	200	Herrings, cod, ling, eels, and skate.	8	This creek continues to forge ahead as a landing port, an increase of nearly 26,000 cwts. in quantity and over £15,000 in value being recorded. A successful herring fishing during December was largely responsible for this gratifying result.
Cod nets, and creels.	Off coast.	29	14	250	Haddocks and shell-fish.	.	Returns show a falling off, largely owing to landings being made at Mallaig.
Cod nets and lines.	Moidart Bay.	80	49	.	Haddocks and flounders.	.	A slight increase, but little attention is paid to fishing in this section.
Cod nets, lines, and creels.	In lochs and off coast.	1,191	368	251	Cod, flounders, and shell-fish.	.	The distinct improvement noticed last year is fully maintained, and extends to the shell fisheries. The value is about one-third more than the previous year.
Nets.	In lochs.	7	4	70	Shell-fish.	.	Returns of shell-fish much the same as in 1911.
Drift nets and lines.	Loch Linnhe.	592	262	21	Herrings and whittings.	.	Landings in this section show little change. Herrings were again absent from Loch Linnhe.



Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.	Increase on 1911.	Decrease from 1911.						
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
<i>Fort-William District— continued.</i>	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	
North and South Corran . . . . .	.	.	.	.	1	3	6	7	7	10	.	.	1	2	2	14	
Loch Leven and Kentallen . . . . .	1	47	.	.	1	3	2	1	4	51	.	.	1	1	1	12	
Cuil, Appin, and Loch Creran . . . . .	.	.	.	.	1	4	2	3	3	7	.	.	.	.	1	9	
Loch Etive and Oban . . . . .	.	.	.	.	8	13	16	20	24	33	.	.	7	19	6	36	
Lismore . . . . .	.	.	.	.	1	2	3	4	4	6	.	.	.	.	.	7	
Tobermory and Salen . . . . .	.	.	.	.	4	24	7	9	11	33	.	.	1	3	3	29	
Lochs Don, Spelve, and Buie . . . . .	.	.	.	.	1	5	6	11	7	16	.	.	2	3	4	20	
Carsaig to Kintra . . . . .	.	.	.	.	.	.	2	4	2	4	.	.	.	.	.	10	
Lochs Laich and Scridan . . . . .	.	.	1	17	2	11	10	14	13	42	.	.	.	.	3	30	
Ulva, Lochs Na-Kael and Thadh Coll . . . . .	.	.	.	.	1	2	8	15	9	17	.	.	1	2	.	20	
Tiree . . . . .	.	.	2	20	1	2	19	28	22	50	.	.	.	2	4	69	
Iona . . . . .	.	.	.	.	.	.	3	5	3	5	.	1	.	.	.	9	
Canna . . . . .	.	.	.	.	2	5	1	2	3	7	1	2	.	.	.	9	
Rum, Muck, and Eigg . . . . .	.	.	1	17	1	1	3	5	5	23	.	.	1	2	.	12	
Totals . . . . .	2	68	6	81	62	224	162	236	232	609	3	8	21	61	45	495	
<i>Campbeltown District.</i>																	
Skipness and Clonaig . . . . .	.	.	.	.	1	6	.	.	1	6	.	.	1	4	.	5	
Carradale and Torrisdale, &c. . . . .	.	.	.	.	30	211	.	.	30	211	.	.	2	7	.	140	
Campbeltown and Machrihanish, &c. . . . .	.	.	1	15	87	637	8	8	96	660	.	.	6	24	3	330	
Sanda . . . . .	.	.	.	.	3	14	.	.	3	14	.	.	.	3	.	4	
Southend . . . . .	.	.	.	.	4	9	.	.	4	9	.	.	.	.	.	5	
Muasdale and Ballochantee . . . . .	.	.	.	.	4	14	5	5	9	19	.	.	.	.	.	14	
Gigha . . . . .	.	.	.	.	18	108	12	19	30	127	.	15	1	.	.	35	
Port-Ellen . . . . .	.	.	.	.	13	29	.	.	13	29	.	.	3	13	.	20	

\* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£				
} Drift nets and hand lines. Drift and cod nets and lines.	Loch Linnhe. Firth of Lorne and off Dhu Artach.	{ 40	20	.	} Saithe and shell-fish.	.	Except when herrings are plentiful in the loch, fishing is confined to the needs of the crofter fishermen on the shore.
		{ 61	21	17			
		25,847	8,346	41	Herrings, cod, eels, and skate.	3	Notwithstanding an increase in the landings of line fish, the total results show a decline from 1911, entirely attributable to the failure of the winter herring fishing. Value however, shows a slight increase.
Lines.	Loch Linnhe.	6	2	.	Eels and skate.	.	Fishermen from this island usually land at Oban.
Drift and cod nets, lines and creels.	Sound of Mull.	376	241	277	Cod, haddocks, and lobsters.	.	Except in shell-fish, the value of which shows a slight increase, the decline which occurred last year continued.
„	In lochs.	185	69	27	Herrings, cod, and lobsters.	.	Returns similar to last year's. The principal crew in this section now own a motor auxiliary and make most of their landings at Oban.
Hand lines and creels.	Off coast.	59	11	20	Flounders and lobsters.	.	Results much the same as in 1911. Operations confined to the few summer months.
Nets, lines, and creels.	In the lochs.	89	58	188	Haddocks and shell-fish.	.	Fair increase in value of shell-fish. Fishermen are largely interested in the land.
Creels.	Around Freshish Isles.	.	.	661	Lobsters.	.	Slight decrease in shell-fish.
Lines and creels.	Off the island.	120	60	217	„	.	Operations largely confined to lobster fishing, the results of which are similar to those of 1911.
„	„	288	85	168	Ling and lobsters.	.	Compared with the number of fishing boats, the landings are insignificant. The value of lobsters shows a slight decrease.
„	Sound of Iona.	186	127	102	Cod, flounders, and lobsters.	.	Little change from 1911.
Nets, lines, and creels.	Off the islands.	397	116	194	Herrings and lobsters.	1	Decrease in all kinds. In common with all island stations, this creek shows a gradual decline. Value of lobsters slightly less.
Creels.	„	.	.	122	Lobsters.	.	Value of shell-fish shows a fair improvement.
		152,717	52,882	2,826			12
Drift nets.	Kilbrannan Sound.	12	4	.	Herrings.	.	Fishing irregularly prosecuted and of very little importance.
Seine nets and lobster creels	„	7,183	1,465	84	Herrings and lobsters.	.	Great increase in quantity and value of herrings and lobsters. Line fishing practically discontinued.
Seine and drift nets, lines, and lobster creels.	„	100,465	35,832	238	Herrings, mackerel, cod, haddocks, whittings, plaice, and lobsters.	8	Herring fishing engaged in all the year. Increase in quantity and value of herrings and mackerel. Decrease in quantity of line fish and lobsters.
Lobster creels.	Around the island.	.	.	120	Lobsters.	.	Considerable increase in lobsters.
Lines and lobster creels.	Along the coast.	443	129	76	Saithe and lobsters.	2	Decrease in line fish, but a large increase in lobsters.
Lobster creels.	1 to 3 miles off the coast.	.	.	158	Lobsters.	.	Little change from 1911.
Drift nets, great lines, and lobster creels.	1 to 5 miles S.W. of Cara Island.	1,206	375	230	Cod and lobsters.	5	Very little change from the previous year.
Lobster creels.	Along the coast to M <sup>r</sup> Arthur Head.	7	2	676	Lobsters.	.	Increase in lobsters

Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1911.		Decrease from 1911.				
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
<i>Campbeltown District— continued.</i>																	
Portaskaig . . . . .	.	.	.	.	9	20	2	2	11	22	.	3	.	.	2	14	.
Portnahaven and Port- Wemyss, &c. . . . .	.	.	.	.	36	89	36	10	72	99	5	.	.	4	18	95	.
Bowmore . . . . .	.	.	.	.	6	9	6	7	12	16	.	.	.	1	2	14	.
Port-Charlotte . . . . .	.	.	.	.	6	16	.	.	6	16	2	10	.	.	.	12	.
Bruichladdich . . . . .	.	.	.	.	4	12	.	.	4	12	1	2	.	.	1	5	.
Loch Gruinart . . . . .	.	.	.	.	3	8	1	2	4	10	.	.	4	12	.	5	.
Jura . . . . .	.	.	.	.	4	14	3	3	7	17	.	4	.	.	.	10	.
Cclonsay . . . . .	.	.	.	.	4	8	2	2	6	10	.	.	1	1	.	12	.
Totals . . . . .	.	.	1	15	232	1,204	75	58	308	1,277	8	34	18	69	26	720	.
<i>Inveraray District.</i>																	
Luing . . . . .	.	.	.	.	4	19	42	42	46	61	.	.	.	7	6	42	.
Criuan and Loch Sween . . . . .	.	.	.	.	2	11	4	4	6	15	.	.	.	.	1	6	.
Lochkylesport . . . . .	.	.	.	.	.	.	2	2	2	2	.	.	.	.	.	2	.
Tarbert . . . . .	.	.	.	.	69	544	5	9	74	553	.	.	6	60	5	242	.
Ardrishaig . . . . .	.	.	.	.	38	220	5	5	43	225	.	.	5	16	8	80	.
Lochgilthead . . . . .	.	.	.	.	12	83	2	2	14	85	.	.	.	.	2	30	.
Castleton . . . . .	.	.	.	.	6	42	1	1	7	43	.	.	.	.	2	13	.
Lochgair . . . . .	.	.	.	.	2	4	1	1	3	5	1	1	.	.	.	4	.
Minard . . . . .	.	.	.	.	6	57	4	4	10	61	.	1	.	.	.	24	.
Craræ . . . . .	.	.	.	.	3	20	.	.	3	20	.	.	1	5	.	12	.
Furnace . . . . .	.	.	.	.	1	5	3	4	4	9	.	.	.	.	3	3	.
Kenmore . . . . .	.	.	.	.	3	16	.	.	3	16	.	.	.	.	2	2	.
Inveraray . . . . .	.	.	.	.	3	12	4	5	7	17	.	.	1	3	5	4	.
Cairndhu to Newton . . . . .	.	.	.	.	4	22	3	3	7	25	.	.	2	7	3	6	.
Otter to Ardlamont . . . . .	.	.	.	.	1	4	1	1	2	5	.	.	.	.	3	3	.
Totals . . . . .	.	.	.	.	154	1,059	77	83	231	1,142	1	1	15	98	37	473	.
<i>Rothsay District.</i>																	
Rothsay (Buteshire) . . . . .	.	.	.	.	6	28	11	12	17	40	.	.	4	20	.	18	.
Port-Bannatyne „ . . . . .	.	.	.	.	4	7	2	2	6	9	.	.	1	2	.	8	.
St. Ninians „ . . . . .	.	.	.	.	5	28	6	7	11	35	.	.	.	.	.	12	.

\* Persons from inland centres temporarily engaged in fishing.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish Landed. (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
			£				
Lobster creels.	Sound of Islay. 1 to 5 miles off Rhinns Lighthouse.	.	.	509	Lobsters.	.	Increase in catch and value.
Lines and lobster creels.		418	155	18	Cod, saithe, and lobsters.	5	Decrease in all kinds of fish.
Lines and drift nets.	Lochindaal.	469	400	.	Herrings, cod, haddocks, and plaice.	.	Large decrease in herrings. There is, however, an increase in cod and plaice, so that the total value is greater than that of last year.
"	"	172	89	8	"	.	Increase in herrings, haddocks, and plaice, but decrease in cod.
Drift nets, lines, and lobster creels.	"	334	125	62	Herrings, plaice, and lobsters.	.	Considerable increase in herrings, but a decrease in line fish.
Lines.	Loch Gruinart Bay.	637	110	181	Saithe and whelks.	.	Considerable increase in shell-fish.
Lobster creels.	Around the island.	.	.	112	Lobsters.	.	Results not quite as good as those of last year.
"	"	.	.	230	"	.	Decrease in shell-fish.
		111,346	38,686	2,702		20	
Lobster creels.	Vicinity of Luing and neighbouring islands.	.	.	547	Lobsters.	.	Increase in lobsters but decrease in unclassified shell-fish. Slight increase in number of lobster boats.
"	Vicinity of Crinan.	.	.	227	Lobsters and oysters.	.	Improvement in lobster fishing, but decrease in oysters.
Lobster creels and nets.	Lochkylesport	161	52	154	Lobsters and herrings.	.	Small shoal of herrings entered loch in December, but stormy weather interrupted operations. Slight decrease in lobsters.
Seine and drift nets and lines.	Loch Fyne and Kilbrannan Sound.	5,370	1,422	82	Herrings, mackerel, codlings and saithe.	2	Decrease of almost 50 per cent. in catch, attributable to failure of herring fishing. Herring fleet being gradually reduced.
"	"	5,764	1,552	7	"	3	Considerable decrease in landings from cause stated above. Also decrease in number of boats and men employed.
"	"	.	.	.	"	.	All fish landed at Ardrishaig or sold at sea.
} Seine, drift, and cod nets and lines.	"	468	260	2	Cod and codlings.	.	Improvement in catch by cod-nets. Line fishing shows little change. All herrings sold at sea.
	} Drift nets.	"	125	39	.	Herrings and mackerel.	.
			11,888	3,325	1,019		5
Seine-nets, cod nets lines.	Firth of Clyde	} 5,471	1,797	57	} Herrings, mackerel, cod and conger eels.	} 2	} Slight increases in quantity and value.
Cod nets. Drift nets and lines.							



Station or Creek.	Fishing Boats and Vessels belonging to Creek.													Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	* Non-Resident Fishermen and Boys.	
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1911.		Decrease from 1911.				
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.	Under 18 feet keel.											
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
<i>Rothsay District— continued.</i>																	
Kilchattan (Buteshire)	.	.	.	.	2	12	3	4	5	16	.	.	.	.	.	6	.
Kyles of Bute (Argyllshire)	.	.	.	.	10	38	11	13	21	51	1	1	.	.	.	17	.
Toward to Holy Loch „	.	.	.	.	2	3	4	4	6	7	1	2	.	.	.	12	.
Blairmore, Ardentinn, and Lochgoil (Dumbarton- shire)	}		.	.	5	11	.	.	5	11	.	.	.	.	.	6	.
Kilcreggan to Arrochar „	.	.	.	.	11	32	8	8	19	40	.	1	2	.	.	21	.
Lochranza and Caticol (Arran),	.	.	.	.	2	15	1	1	3	16	.	.	.	.	.	8	.
Pirmill to Blackwater „	.	.	2	32	5	26	3	4	10	62	2	32	.	.	.	15	.
Blackwater to Whiting Bay „	.	.	.	.	.	.	1	2	1	2	.	.	.	.	.	6	.
Whiting Bay to Lamash „	.	.	.	.	.	.	3	3	3	3	.	.	3	18	.	10	.
Totals	.	.	2	32	52	200	53	60	107	292	4	36	16	40	.	139	.
<i>Greenock District.</i>																	
Gareloch (Dumbartonshire),	.	.	.	.	3	7	4	4	7	11	.	.	1	2	.	8	.
Helenburgh „	.	.	.	.	2	12	5	3	7	15	.	8	.	.	.	9	.
Glasgow (Lanarkshire),	†20	1,073	.	.	2	6	1	.	23	1,079	.	130	.	.	.	180	.
Port-Glasgow (Renfrewshire)	.	.	.	.	17	61	8	7	25	68	1	.	.	1	.	16	.
Greenock „	1	10	.	.	19	78	14	11	34	99	.	1	2	.	.	24	.
Gourock „	.	.	.	.	.	.	4	3	4	3	.	.	.	.	.	5	.
Wemyss Bay „	.	.	.	.	.	.	1	1	1	1	.	.	1	1	.	3	.
Largs (Ayrshire),	.	.	.	.	1	1	19	17	20	18	.	.	1	5	.	25	.
Cumbræ (Buteshire)	.	.	.	.	2	4	7	6	9	10	.	.	.	1	.	12	.
Fairlie (Ayrshire)	.	.	.	.	1	1	3	3	4	4	.	.	.	.	.	6	.
Portincross „	.	.	.	.	.	.	.	.	.	.	.	.	3	4	.	.	.
Saltcoats „	.	.	.	.	9	50	11	17	20	67	.	.	3	13	.	30	.
Ardrossan „	.	.	.	.	.	.	2	2	2	2	.	.	.	6	.	3	.

\* Persons from inland centres temporarily engaged in fishing.  
† Includes 16 trawlers, of an aggregate tonnage of 985 tons.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish landed (excluding Shell Fish).	Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts.	£	£		
Drift nets and lines.	Off south and east coasts of Bute.	804	320	21	Herrings and mackerel.	• Small increases in herrings and mackerel.
Drift-nets, cod nets and lines.	Kyles of Bute and adjacent waters.	645	350	115	Herrings, cod, and mackerel.	• Substantial increases in cod and mackerel.
Cod nets and lines.	Estuary of Upper Clyde.	325	396	125	Cod, saithe, plaice, and flounders.	• Slight decrease in quantity, but increase in value, of white fish and shell-fish.
Drift nets, cod nets and lines.	Lochs Long and Goll.	2,370	614	25	Mackerel, cod, saithe, conger eels, and hake.	• Figures almost similar to last year's.
Drift and seine nets and lines.	Kilbrannan Sound and adjacent waters.					
Drift and seine nets and lines.	Lochs Long and Goll.	19	19	7	Haddocks.	• Practically no fishing was carried on at this section. Local crews fished in other parts of the Clyde with motor and sail boats.
Lobster creels. Drift nets and lines.	S. and E. of Arran	11,858	5,731	128	Herrings, haddocks, whittings, flounders, and lobsters.	• Big decrease in herrings.
Drift nets and lines.	„					
Nets and lines	Gareloch.	67	48	36	Codlings and whittings.	• Fishing of little importance.
„	Firth of Clyde.	196	209	303	Codlings, haddocks, whittings, and flounders.	• Results somewhat similar to those of previous year.
Otter trawls and great lines.	West Coast.	3,108	2,127	.	Ling, haddocks, cod, and flat-fish.	29 Occasional landings made by steam trawlers and steam liners.
Nets, lines, and mussel-dredging.	Firth of Clyde.	10	3	264	Mussels.	1 Considerable increase in mussels.
„	„	88	15	191	„	3 Decrease in white fish and mussels,
Nets and lines.	„	31	23	.	Conger eels.	• Fishing unimportant.
Lines.	„	237	200	.	Saithe, whittings, codlings, and flounders.	• Landings somewhat similar to last year's.
Nets and lines.	„	1,371	659	.	Herrings, mackerel, codlings, and flounders.	• Increase in herrings; little change otherwise.
„	„	716	539	3	„	• Slight decrease in quantity, but increase in value of fish landed.
Lines.	„	3,059	728	9	Herrings and-mackerel.	• Increase in herrings and mackerel
Nets, lines, and creels.	Firth of Clyde.	.	.	.	„	• No fishing boats now belonging to this creek.
Lines and creels.	„	663	178	253	Herrings, mackerel, codlings, plaice, and lobsters.	1 } Decrease in total value of fish landed.

Station or Creek.	Fishing Boats and Vessels belonging to Creek.														Seaworthy Boats Unlaunched.	Resident Fishermen and Boys.	*Non-Resident Fishermen and Boys.
	1st Class (including Steam Trawlers).				2nd Class.		3rd Class.		Total.		Increase on 1911.		Decrease from 1911.				
	45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.										
No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	Ton.	No.	No.	No.	
<i>Greenock District—continued.</i>																	
Irvine (Ayrshire)	.	.	.	.	17	70	3	6	20	76	.	.	2	4	.	30	.
Troon "	.	.	.	.	6	12	3	4	9	16	.	.	12	24	.	12	.
Totals, .	21	1,083	.	.	79	302	85	84	185	1,469	1	139	25	61	.	363	.
<i>Ballantrae District.</i>																	
Ayr (Ayrshire)	.	.	.	.	13	33	1	2	14	35	.	.	2	4	1	18	.
Dunure "	.	.	.	.	37	136	1	1	38	137	.	1	.	.	.	48	.
Maidens "	.	.	.	.	36	124	3	3	39	127	1	17	.	.	2	35	.
Girvan "	.	.	.	.	35	173	1	1	36	174	.	.	3	21	2	88	.
Carleton "	.	.	.	.	3	16	4	4	7	20	.	.	.	.	.	12	.
Ballantrae,,	.	.	.	.	13	48	5	8	18	56	.	.	.	.	1	32	.
Cairnryan (Wigtownshire)	.	.	.	.	3	9	1	1	4	10	.	.	.	.	.	5	.
Stranraer "	.	.	.	.	16	103	19	25	35	128	.	3	1	.	4	59	.
Kirkecolm "	.	.	.	.	1	2	7	8	8	10	.	.	.	.	.	12	.
Port-Patrik "	.	.	.	.	.	.	8	10	8	10	.	1	.	.	.	16	.
Port-Logan "	.	.	.	.	1	4	6	6	7	10	1	4	.	.	.	8	.
Drummore "	.	.	.	.	10	80	8	8	18	88	.	17	1	.	.	24	.
Sandhead "	.	.	.	.	3	8	7	8	10	16	1	.	.	.	.	14	.
Glenluce "	.	.	.	.	3	8	7	8	10	16	.	.	1	4	.	14	.
Port-William "	.	.	.	.	1	2	13	14	14	16	1	2	.	.	1	16	.
Whithorn Isle "	.	.	.	.	.	.	8	8	8	8	.	.	2	2	.	14	.
Garliestown "	.	.	.	.	1	6	5	5	6	11	1	6	.	.	.	10	.
Creorgetown (Kirkcudbright)	.	.	.	.	4	18	11	15	15	33	.	.	.	.	.	19	.
Kirkcudbright "	.	.	.	.	.	.	6	6	6	6	2	2	.	.	.	8	.
Carsethorn (Dumfries)	.	.	.	.	.	.	2	5	2	5	.	.	.	.	.	14	.
Caerlaverock "	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16	.
Powfoot "	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5	.
Annan "	.	.	.	.	47	192	2	4	49	196	2	5	.	.	.	90	.
Totals, .	.	.	.	.	227	962	125	150	352	1,112	9	58	10	31	11	577	.
Grand Totals, 1912	2704	94,065	426	5,689	2625	12372	3109	5,022	8864	122148	.	.	294	2,638	280	33135	1,327
Grand Totals, 1911	2810	101139	452	5,901	2670	12583	3226	5,163	9158	124786	.	.	197	2,335	274	33738	1,351

\* Persons from inland centres temporarily engaged in fishing.

† Includes 49 sailing trawlers of an aggregate tonnage of 247 tons.

No. II.—continued.

Methods of Fishing Pursued.	Position of Principal Fishing Grounds.	Quantity and Value of Fish landed (excluding Shell Fish).		Value of Shell Fish Taken.	Principal Kinds of Fish Landed.	No. of Curing Stations.	General Remarks.
		Cwts	£				
Nets and lines.	Firth of Clyde.	14,103	6,812	12	Herrings, mackerel, codlings, and flounders.	.	Marked improvement in herring fishing.
Lines and creels.	"	26	16	11	Mackerel and lobsters.	.	No regular fishing carried on.
		23,670	11,557	1,082		34	
Nets and lines.	Firth of Clyde.	25,471	10,816	93	Herrings, cod, whittings, plaice, and mackerel.	17	Ayr shows a considerable increase in herrings, while the landings at Dunure and Maidens exhibit noticeable decreases. The crews of the latter creeks however, contributed largely to the Ayr catch.
"	"	4,458	2,321	93			
"	"	2,024	1,218	98			
"	"	4,791	1,772	217	General.	3	Herrings are chiefly responsible for the decrease in quantity and value.
"	"						
"	"	2,175	745	18	Cod and saithe.	.	The principal fishing—cod-net—was not so successful as in the previous year.
"	Lochryan and off Corsewall.	46,740	15,864	4,644	Herrings, cod, haddocks, plaice, eels, skate, oysters.	19	A very successful herring fishing was conducted in Lochryan in the spring of the year, the fish being all landed at Stranraer. Quantity and value more than doubled. The fish was mostly landed by crews other than those belonging to the creek. Cairryan and Kirkcolm are of little importance.
"							
Lines and creels.	Channel.	1,040	472	81	Cod, crabs, and lobsters.	.	Slight increase in line fishing. Decrease in shell-fish.
Nets, lines, and creels.	Luce Bay.	1,626	1,163	428	Mackerel, cod, plaice, skate, crabs, and lobsters.	.	These four creeks are not of much importance as fishing stations. There are a few regular fishermen around Luce Bay, but the bulk of them only fish occasionally. Decrease in quantity and value.
Lines and creels.	Wigtown Bay.	459	405	449	Cod, sparlings, plaice, lobsters, and crabs.	.	Increase in white-fish, decrease in shell-fish. General result—slight improvement on last year.
"	" Cree estuary.						
Stake nets.	Kirkcudbright Bay.	713	397	326	Flounders, mussels, and lobsters.	.	Decrease in mussels.
"	" Nith estuary.						
"	" Solway Firth.						
Beam trawling.	"	990	1,237	2,459	Flounders, plaice, and shrimps.	.	The catch of plaice is less by half than last year's. Fair increase in shrimps.
		90,487	36,410	8,906		39	
		8117826	3450829	67,594		916	
		8175731	2973000	67,355		909	



## APPENDIX A.—No. III.

RETURN for the year 1912 showing the largest number of Boats, Decked and Undecked, *irrespective* of the places to which they belong, employed fishing for herrings, as well as the number of persons engaged in that industry, in each District in Scotland at *one* time.

DISTRICTS.	Date.	Boats.	Fisher- men and Boys.	Curers.	Coopers.	Gutters and Packers.	Labour- ers.	Total Persons Em- ployed.
	Week ending							
Eyemouth, . . .	Aug. 17	359	2,947	89	219	1,639	298	5,192
Leith, . . .	Feb. 10	70	242	11	15	90	43	401
Anstruther, . . .	„ 13	171	1,102	45	114	180	42	1,483
Montrose, . . .	Aug. 21	65	457	8	38	213	29	745
Stonehaven, . . .	„ 3	20	132	5	10	80	3	230
Aberdeen, . . .	„ 17	122	1,068	49	114	1,836	725	3,792
Peterhead, . . .	„ 17	352	2,764	78	330	1,928	259	5,359
Fraserburgh, . . .	„ 10	500	4,012	86	431	2,069	455	7,053
Banff, . . .	„ 10	123	861	12	25	165	18	1,081
Buckie, . . .	June 29	140	980	13	24	201	14	1,232
Findhorn, . . .	„ 29	46	368	9	18	120	15	530
Cromarty, . . .	Oct. 26	3	12	...	...	...	3	15
Helmsdale, . . .	Aug. 10	2	12	1	1	3	...	17
Lybster, . . .	June 29	10	50	1	2	18	...	71
Wick, . . .	July 20	410	3,170	54	296	1,560	190	5,270
Orkney, . . .	„ 20	340	2,660	33	206	1,230	160	4,289
Shetland, . . .	June 29	757	6,732	85	592	3,444	458	11,311
Stornoway, . . .	„ 1	204	1,746	32	115	870	80	2,843
Barra, . . .	May 25	217	1,387	26	75	660	67	2,215
Loch Broom, . . .	Oct. 12	60	295	15	19	102	16	447
Loch Carron and Skye,	„ 31	192	768	33	21	99	5	926
Fort-William, . . .	May 25	40	360	22	14	51	17	464
Campbeltown, . . .	Oct. 12	140	630	9	5	54	10	708
Inveraray, . . .	June 25	97	378	5	...	30	4	417
Rothesay, . . .	„ 25	176	665	3	...	10	6	684
Greenock, . . .	Aug. 10	152	610	34	34	130	88	896
Ballantrae, . . .	Dec. 28	103	444	28	14	...	20	506







No. I.—continued.

from Steam, Motor, and Sailing Boats respectively and landed in SCOTLAND during the various Year 1912.

GREAT SUMMER AND AUTUMN—cont'd. (1st July to 31st Dec.)				TOTALS.						GRAND TOTAL.		No.
Sail.		Total.		Steam.		Motor.		Sail.		Cwts. Landed.	Value. £	
Cwts. Landed.	Value. £	Cwts. Landed.	Value. £	Cwts. Landed.	Value. £	Cwts. Landed.	Value. £	Cwts. Landed.	Value. £			
19,037	5,782	63,183	21,443	13,073	4,740	57,749	17,162	35,552	9,128	106,374	31,030	
1,702	501	2,009	655	522	183	228	38	10,218	3,366	10,968	3,592	2
7,878	2,383	16,398	5,409	7,011	2,723	4,945	1,585	64,609	20,464	77,165	24,772	3
13,389	6,062	26,760	9,063	6,009	2,198	3,009	969	19,328	6,417	28,846	9,584	4
6,437	1,974	6,437	1,974	-	-	-	-	9,090	2,560	9,090	2,560	5
27,468	9,772	157,610	62,472	153,936	59,148	7,856	2,544	60,627	17,555	222,419	79,247	6
169,645	62,406	423,693	167,016	401,453	142,562	2,517	774	286,398	93,479	690,368	236,515	7
241,934	88,472	475,558	186,636	308,051	113,379	25,293	8,813	367,651	122,441	700,995	240,633	8
9,314	3,371	15,547	5,756	9,178	3,144	42	15	16,951	5,449	26,171	8,608	9
5,323	1,882	13,000	6,979	19,485	7,190	209	52	21,051	5,490	40,745	12,732	10
15,887	4,002	20,698	6,047	8,829	3,247	42	10	31,029	5,509	39,900	8,766	11
174	39	174	39	-	-	-	-	174	39	174	39	12
42	11	42	11	-	-	-	-	119	27	119	27	13
187	61	187	61	-	-	-	-	895	273	895	273	14
125,743	51,067	324,978	141,856	324,161	129,051	10,621	4,144	263,693	90,989	598,475	224,184	15
649,160	237,785	1,556,274	615,417	1,252,308	472,570	112,511	36,106	1,187,885	383,186	2,552,704	891,862	
65,635	27,084	349,205	158,303	421,698	176,249	6,571	2,800	112,848	42,603	541,117	221,652	16
61,967	25,924	576,154	277,789	1,209,960	465,086	4,991	1,541	178,801	58,887	1,393,752	525,514	17
127,602	53,008	925,359	436,592	1,631,658	641,235	11,562	4,341	291,649	101,490	1,934,869	747,166	
63,815	26,180	140,384	68,003	163,372	61,673	4,065	2,275	117,122	44,232	284,559	108,180	18
10,233	6,567	14,741	9,270	12,394	6,411	954	512	44,498	26,432	57,826	33,355	19
9,674	3,497	10,580	3,878	227	106	679	275	10,043	3,553	10,949	3,934	20
39,871	12,573	46,815	14,992	5,877	1,960	5,408	1,858	47,351	13,691	58,636	17,509	21
6,210	1,600	41,305	16,649	77,293	37,990	4,024	1,812	7,897	2,479	89,214	32,281	22
4,487	2,035	61,674	27,189	-	-	30,945	32,346	14,864	4,075	105,809	36,421	23
1,722	400	4,795	1,567	-	-	4,956	1,551	2,716	651	7,672	2,182	24
1,508	608	13,569	6,132	-	-	13,764	5,862	2,318	781	16,082	6,643	25
1,684	784	15,385	7,013	-	-	15,903	6,720	2,181	941	18,084	7,661	26
1,779	1,214	21,430	10,790	252	112	57,013	20,149	7,577	3,056	64,842	23,317	27
140,983	55,458	370,178	165,490	259,415	98,252	197,691	73,360	256,567	99,871	713,673	271,483	
649,160	237,785	1,556,274	615,417	1,252,308	472,570	112,511	36,106	1,187,885	383,186	2,552,704	891,862	
127,602	53,008	925,359	436,592	1,631,658	641,335	11,562	4,341	291,649	101,490	1,934,869	747,166	
140,983	55,458	370,178	165,490	259,415	98,252	197,691	73,360	256,567	99,871	713,673	271,483	
-	-	54	22	54	22	-	-	-	-	54	22	
917,745	346,251	2,851,865	1,217,521	3,143,435	1,212,179	321,764	113,807	1,736,101	584,547	5,201,300	1,910,533	
1,084,916	354,484	2,869,314	1,039,528	2,950,324	934,039	252,893	67,224	1,833,267	504,071	5,036,484	1,505,334	
-	-	-	177,993	193,111	278,140	68,871	46,583	-	80,476	164,816	405,199	
167,171	8,233	17,449	-	-	-	-	-	97,166	-	-	-	



## APPENDIX B.—No. I.—continued.

TOTAL QUANTITY OF FISH LANDED.—STATEMENT of the Total Quantity and Value of the different kinds of Pelagic Fish (including herrings) taken by Nets and landed in SCOTLAND in the Year 1912.

No.	DISTRICTS.	Sprats.		Sparlings.		Mackerel.		TOTAL TAKEN BY NETS.	
		Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£
<b>EAST COAST.</b>									
1	Eymouth, - - - -	...	...	...	...	1,431	527	107,805	31,557
2	Leith, - - - -	2,504	473	215	634	963	485	14,650	5,184
3	Anstruther, - - - -	25	6	143	286	48	14	77,381	25,078
4	Montrose, - - - -	322	23	24	64	350	173	29,542	9,844
5	Stonehaven, - - - -	...	...	...	...	54	15	9,144	2,575
6	Aberdeen, - - - -	...	...	...	...	4,156	1,855	226,575	81,102
7	Peterhead, - - - -	...	...	...	...	2,955	505	693,323	237,320
8	Fraserburgh, - - - -	...	...	...	...	2,333	403	703,328	250,036
9	Banff, - - - -	...	...	...	...	175	28	26,346	8,636
10	Buckie, - - - -	...	...	...	...	20	3	40,765	12,735
11	Findhorn, - - - -	2,746	1,364	...	...	...	...	42,646	10,130
12	Cromarty, - - - -	...	...	...	...	...	...	174	39
13	Helmsdale, - - - -	...	...	...	...	...	...	119	27
14	Lybster, - - - -	...	...	...	...	4	1	899	274
15	Wick, - - - -	...	...	...	...	291	55	598,766	224,239
East Coast Totals carried down, - - - - }		5,597	1,866	382	984	12,780	4,064	2,571,463	898,776
<b>Orkney and Shetland.</b>									
16	Orkney, - - - -	...	...	...	...	54	12	541,171	221,664
17	Shetland, - - - -	...	...	...	...	7,712	654	1,401,464	526,168
Orkney and Shetland Totals carried down, - - - - }		...	...	...	...	7,766	666	1,942,635	747,832
<b>WEST COAST.</b>									
18	Stornoway, - - - -	...	...	...	...	6,218	681	290,777	108,861
19	Barra, - - - -	...	...	...	...	5,436	134	63,262	33,489
20	Loch Broom, - - - -	...	...	...	...	565	48	11,514	3,982
21	Loch Carron and Skye, - - - -	...	...	...	...	5,066	1,070	63,702	18,579
22	Fort-William, - - - -	...	...	...	...	672	156	89,886	32,437
23	Campbeltown, - - - -	...	...	...	...	1,140	188	106,949	36,609
24	Inveraray, - - - -	...	...	...	...	3,387	642	11,059	2,824
25	Rothesay, - - - -	...	...	...	...	1,497	316	17,579	6,959
26	Greenock, - - - -	...	...	...	...	910	227	18,994	7,888
27	Ballantrae, - - - -	...	...	18	79	2,560	544	67,420	23,940
West Coast Totals carried down, - - - - }		...	...	18	79	27,451	4,006	741,142	275,568
<b>Totals brought down.</b>									
East Coast, - - - -		5,597	1,866	382	984	12,780	4,064	2,571,463	898,776
Orkney and Shetland, - - - -		...	...	...	...	7,766	666	1,942,635	747,832
West Coast, - - - -		...	...	18	79	27,451	4,006	741,142	275,568
Foreign Fishing Vessels, - - - -		...	...	...	...	13	6	67	28
Grand Totals for 1912, - - - -		5 597	1,866	400	1,063	48,010	8,742	5,255,307	1,922,204
Grand Totals for 1911, - - - -		35,875	4,234	300	648	47,999	9,819	5,120,658	1,520,035
Increase in 1912, - - - -		...	...	100	415	11	...	134,64	402,169
Decrease in 1912, - - - -		30,278	2,368	...	...	...	1,077	...	...

APPENDIX B.—No. I.—continued.

TOTAL QUANTITY OF FISH LANDED.—STATEMENT of the Total Quantity and Value of the different kinds of Fish landed in Scotland in the Year 1912.

No.	DISTRICTS.	ROUND FISH.							
		Cod.				LING.			
		Line and Net.		Trawl.		Line and Net.		Trawl.	
		Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£
<b>EAST COAST.</b>									
1	Eyemouth, - - -	2,520	1,199	...	...	82	55	...	...
2	Leith, - - -	16,507	9,234	70,157	33,813	490	346	5,146	2,133
3	Anstruther, - - -	11,394	5,407	...	...	64	34	...	...
4	Montrose, - - -	16,148	7,538	7,871	5,535	129	135	224	208
5	Stonehaven, - - -	4,734	1,905	...	...	23	13	...	...
6	Aberdeen, - - -	55,203	23,195	493,654	248,780	74,416	25,361	55,379	13,969
7	Peterhead, - - -	14,781	5,390	...	...	1,235	396	...	...
8	Fraserburgh, - - -	12,632	4,356	...	12 7	1,022	407	...	...
9	Banff, - - -	15,931	5,458	...	...	27	11	...	...
10	Buckie, - - -	23,989	8,914	...	...	115	65	...	...
11	Findhorn, - - -	29,924	12,045	...	...	6	2	...	...
12	Cromarty, - - -	5,602	2,377	...	...	...	...	...	...
13	Helmsdale, - - -	10,759	2,935	...	...	...	...	...	...
14	Lybster, - - -	4,034	945	...	...	...	...	...	...
15	Wick, - - -	37,734	10,601	...	...	340	126	...	...
	East Coast Totals carried down, - - }	261,942	101,499	571,694	288,135	77,949	26,951	60,749	16,310
<b>Orkney and Shetland.</b>									
16	Orkney, - - -	15,021	5,675	10,739	3,113	141	59	...	...
17	Shetland, - - -	8,553	2,353	5,886	1,686	5,495	1,580	...	...
	Orkney and Shetland Totals carried down, }	23,579	8,028	16,625	4,799	5,636	1,639	...	...
<b>WEST COAST.</b>									
18	Stornoway, - - -	8,474	2,379	10	6	22,261	7,308	3	1
19	Barra, - - -	2,622	626	...	...	6,008	1,965	...	...
20	Loch Broom, - - -	10,299	2,984	...	...	33	12	...	...
21	Loch Carron and Skye, - - -	3,101	1,258	...	...	330	118	...	...
22	Fort-William, - - -	8,633	2,887	334	143	5,221	2,177	163	46
23	Campbeltown, - - -	2,228	872	...	...	78	39	...	...
24	Inveraray, - - -	712	459	...	...	13	7	...	...
25	Rothesay, - - -	1,505	1,117	...	...	107	63	...	...
26	Greenock, - - -	896	781	30	17	1,026	297	30	9
27	Ballantrae, - - -	7,133	3,001	...	...	364	163	...	...
	West Coast Totals carried down, - - }	45,603	16,364	374	166	35,441	12,149	196	56
<b>Totals brought down.</b>									
	East Coast, - - -	261,942	101,499	571,694	288,135	77,949	26,951	60,749	16,310
	Orkney and Shetland, - - -	23,579	8,028	16,625	4,799	5,636	1,639	...	...
	West Coast, - - -	45,603	16,364	374	166	35,441	12,149	196	56
	Foreign Fishing Vessels	36,208	15,182	279,018	72,039	...	...	10,993	2,659
	Grand Totals for 1912,	367,332	141,073	867,711	365,139	119,026	40,739	71,938	19,025
	Grand Totals for 1911,	299,717	113,781	901,476	335,160	167,110	51,374	79,279	19,005
	Increase in 1912, - - -	67,615	27,292	...	29,979	...	...	...	20
	Decrease in 1912, - - -	...	...	33,765	...	48,084	10,635	7,341	...

## APPENDIX B.—

## TOTAL QUANTITY OF FISH LANDED.—STATEMENT of the Total Quantity

No.	DISTRICTS.	ROUND FISH							
		TORSK (TUSK).				SAITHE (COAL FISH).			
		Line.		Trawl.		Line and Net.		Trawl.	
		Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£
<b>EAST COAST.</b>									
1	Eyemouth, - - -	...	...	...	...	...	...	...	...
2	Leith, - - -	...	...	5	1	382	56	5,053	847
3	Anstruther, - - -	...	...	...	...	843	120	...	...
4	Montrose, - - -	...	...	...	...	220	33	242	50
5	Stonehaven, - - -	...	...	...	...	110	33	...	...
6	Aberdeen, - - -	10,526	3,874	1,595	435	7,082	1,252	143,831	21,799
7	Peterhead, - - -	40	15	...	...	8,740	1,557	...	...
8	Fraserburgh, - - -	6	3	...	...	2,908	487	...	...
9	Banff, - - -	...	...	...	...	8	2	...	...
10	Buckie, - - -	...	...	...	...	64	13	...	...
11	Findhorn, - - -	...	...	...	...	5	1	...	...
12	Cromarty, - - -	...	...	...	...	10	4	...	...
13	Helmsdale, - - -	...	...	...	...	19	3	...	...
14	Lybster, - - -	...	...	...	...	8	1	...	...
15	Wick, - - -	3	1	...	...	880	149	...	...
East Coast Totals carried down, - - }		10,575	3,893	1,600	436	21,279	3,711	149,126	22,696
<b>Orkney and Shetland.</b>									
16	Orkney, - - -	10	3	..	...	1,619	166	684	103
17	Shetland, - - -	2,024	331	...	...	22,803	2,605	80	12
Orkney and Shetland } Totals carried down, }		2,034	334	...	...	24,422	2,771	764	115
<b>WEST COAST.</b>									
18	Stornoway, - - -	1,890	378	...	...	12,834	1,715	...	...
19	Barra, - - -	162	37	...	...	5,178	373	...	...
20	Loch Broom, - - -	...	...	...	...	1,440	234	...	...
21	Loch Carron and Skye, - - -	2	1	...	...	3,836	503	...	...
22	Fort-William, - - -	209	28	...	...	2,208	315	208	32
23	Campbeltown, - - -	...	...	...	...	1,120	214	...	...
24	Inveraray, - - -	...	...	...	...	58	10	...	...
25	Rothsay, - - -	...	...	...	...	1,191	197	...	...
26	Greenock, - - -	21	4	...	...	120	51	33	6
27	Ballantrae, - - -	...	...	...	...	1,517	215	...	...
West Coast Totals carried down, - - }		2,284	448	...	...	29,502	3,827	241	38
<b>Totals brought down.</b>									
East Coast, - - -		10,575	3,893	1,600	436	21,279	3,711	149,126	22,696
Orkney and Shetland, - - -		2,034	334	...	...	24,422	2,771	764	115
West Coast, - - -		2,284	448	...	...	29,502	3,827	241	38
Foreign Fishing Vessels		...	...	10	1	...	...	61,548	15,778
Grand Totals for 1912,		14,893	4,675	1,610	437	75,203	10,309	211,679	38,627
Grand Totals for 1911,		20,271	5,671	1,761	474	73,783	10,243	142,517	21,051
Increase in 1912, - - -		...	...	...	...	1,420	66	69,162	17,576
Decrease in 1912, - - -		5,378	996	151	37	...	...	...	...



No. I.—continued.

and Value of the different Kinds of Fish landed in Scotland in the Year 1912.

—continued.

HADDOCK.				WHITING.				CONGER EEL.				GURNARDS.			
Line and Net.		Trawl.		Line and Net.		Trawl.		Line and Net.		Trawl.		Line and Net.		Trawl.	
Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£
2,032	2,163	...	...	668	553	...	...	40	21	...	...	8	2	...	...
3,966	3,455	149,756	80,454	306	185	39,132	13,524	92	226	6	1	...	...	1,817	281
4,263	3,686	...	...	323	165	...	...	131	69	...	...	...	...	...	...
13,167	10,046	31,277	16,605	1,773	737	4,871	1,816	13	5	9	6	...	...	470	102
3,843	2,490	...	...	1,735	812	...	...	...	...	...	...	...	...	...	...
3,462	2,142	565,003	372,433	3,007	1,170	109,248	45,531	1,465	531	679	215	...	...	3,835	369
1,944	1,229	...	...	527	192	...	...	57	23	...	...	20	5	...	...
4,488	2,306	63	25	505	192	2	1	393	152	...	...	...	...	...	...
17,368	11,227	...	...	3,562	1,335	...	...	4	2	...	...	...	...	...	...
13,175	8,674	...	...	37	11	...	...	14	7	...	...	...	...	...	...
15,034	9,527	...	...	951	350	...	...	...	...	...	...	...	...	...	...
10,776	5,885	...	...	505	253	...	...	2	1	...	...	...	...	...	...
10,008	4,038	...	...	705	245	...	...	119	38	...	...	...	...	...	...
1,513	610	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2,572	707	...	...	...	...	...	...	47	20	...	...	47	12	...	...
107,611	68,685	746,099	469,517	14,604	6,230	153,253	60,872	2,380	1,095	694	222	75	19	6,122	752
750	393	49	29	...	...	...	...	...	...	...	...	...	...	...	...
16,885	6,737	380	80	1,567	448	...	...	...	...	...	...	...	...	...	...
17,635	7,130	429	109	1,567	448	...	...	...	...	...	...	...	...	...	...
9,621	3,661	...	...	378	101	...	...	5,467	2,034	...	...	1,855	509	...	...
34	11	...	...	12	3	...	...	826	356	...	...	...	...	...	...
3,369	1,362	...	...	301	123	...	...	255	55	...	...	...	...	...	...
1,841	934	...	...	325	155	...	...	312	149	...	...	67	15	...	...
1,114	804	1,751	647	159	141	577	199	22,016	5,972	275	49	4	2	140	26
154	130	...	...	228	229	...	...	56	30	...	...	...	...	...	...
...	...	...	...	2	2	...	...	26	10	...	...	...	...	...	...
161	161	...	...	155	157	...	...	1,001	385	...	...	...	...	...	...
41	49	321	93	151	166	28	10	43	27	20	9	...	...	14	2
669	457	...	...	1,328	1,092	...	...	3,489	1,161	...	...	...	...	...	...
17,004	7,569	2,072	740	3,039	2,169	605	209	33,491	10,179	295	58	1,926	526	154	23
107,611	68,685	746,099	469,517	14,604	6,230	153,253	60,872	2,380	1,095	694	222	75	19	6,122	752
17,635	7,130	429	109	1,567	448	...	...	...	...	...	...	...	...	...	...
17,004	7,569	2,072	740	3,039	2,169	605	209	33,491	10,179	295	58	1,926	526	154	23
...	...	62,376	22,207	...	...	924	223	...	...	3	...	...	...	41	3
142,250	83,384	810,976	492,573	19,210	8,847	154,782	61,304	35,871	11,274	992	280	2,001	545	6,317	783
167,308	91,352	903,712	438,079	15,472	7,729	127,822	48,018	33,144	11,794	913	286	910	196	5,038	663
...	...	...	54,494	3,733	1,118	26,960	13,286	2,727	...	74	...	1,091	349	1,279	120
25,058	7,968	92,736	...	...	...	...	...	...	520	...	6	...	...	...	...



## APPENDIX B.—

TOTAL QUANTITY OF FISH LANDED.—STATEMENT of the Total Quantity and

No.	DISTRICTS.	ROUND FISH							
		CATFISH.				MONKS (ANGLERS).			
		Line.		Trawl.		Line.		Trawl.	
		Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£
	<b>EAST COAST.</b>								
1	Eyemouth, - - -	41	13	...	...	...	...	...	...
2	Leith, - - - -	237	110	10,541	4,125	...	...	1,911	690
3	Anstruther, - - -	104	22	...	...	...	...	...	...
4	Montrose, - - -	147	57	599	246	...	...	395	168
5	Stonehaven, - - -	...	...	...	...	...	...	...	...
6	Aberdeen, - - -	237	30	14,134	2,658	...	...	19,922	4,548
7	Peterhead, - - -	63	21	...	...	...	...	...	...
8	Fraserburgh, - - -	50	17	...	...	...	...	...	...
9	Banff, - - - -	...	...	...	...	...	...	...	...
10	Buckie, - - - -	...	...	...	...	...	...	...	...
11	Findhorn, - - -	3	1	...	...	...	...	...	...
12	Cromarty, - - -	...	...	...	...	...	...	...	...
13	Helmsdale, - - -	...	...	...	...	...	...	...	...
14	Lybster, - - - -	...	...	...	...	...	...	...	...
15	Wick, - - - -	...	...	...	...	...	...	...	...
	East Coast Totals carried } down, - - - - }	882	271	25,274	7,029	...	...	22,228	5,406
	<b>Orkney and Shetland.</b>								
16	Orkney, - - - -	...	...	...	...	...	...	...	...
17	Shetland, - - -	...	...	...	...	...	...	...	...
	Orkney and Shetland } Totals carried down, - }	...	...	...	...	...	...	...	...
	<b>WEST COAST.</b>								
18	Stornoway, - - -	...	...	...	...	...	...	...	...
19	Barra, - - - -	...	...	...	...	...	...	...	...
20	Loch Broom, - - -	...	...	...	...	...	...	...	...
21	Loch Carron and Skye, -	...	...	...	...	...	...	...	...
22	Fort-William, - - -	...	...	140	44	...	...	34	6
23	Campbeltown, - - -	...	...	...	...	...	...	...	...
24	Inveraray, - - -	...	...	...	...	...	...	...	...
25	Rothesay, - - -	...	...	...	...	...	...	...	...
26	Greenock, - - -	...	...	24	9	...	...	8	1
27	Ballantrae, - - -	...	...	...	...	...	...	...	...
	West Coast Totals car- } ried down, - - - }	...	...	164	53	...	...	42	7
	<b>Totals brought down.</b>								
	East Coast, - - -	882	271	25,274	7,029	...	...	22,228	5,406
	Orkney and Shetland, -	...	...	...	...	...	...	...	...
	West Coast, - - -	...	...	164	53	...	...	42	7
	Foreign Fishing Vessels,	...	...	4,031	505	...	...	309	53
	Grand Totals for 1912, -	882	271	29,469	7,587	...	...	22,579	5,466
	Grand Totals for 1911, -	902	315	30,015	6,949	...	...	21,890	4,355
	Increase in 1912, - - -	...	...	...	638	...	...	689	1,111
	Decrease in 1912, - - -	20	44	546	...	...	...	...	...

No. I.—continued.

Value of the different Kinds of Fish landed in Scotland in the Year 1912.

—concluded.

HAKE.				TOTALS OF ROUND FISH.				GRAND TOTAL OF ROUND FISH.		No.
Line and Net.		Trawl.		Line and Net.		Trawl.		Cwts.	£	
Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£			
...	...	...	...	5,391	4,006	...	...	5,391	4,006	1
...	...	184	73	21,980	13,612	283,708	135,942	305,688	149,554	2
...	...	...	...	17,125	9,503	...	...	17,125	9,503	3
...	...	10	5	31,597	18,551	45,968	24,741	77,565	43,292	4
...	...	...	...	10,445	5,253	...	...	10,445	5,253	5
409	322	17,891	10,842	155,897	57,877	1,425,171	721,579	1,580,978	779,456	6
4	3	...	...	27,411	8,831	...	...	27,411	8,831	7
...	...	...	...	22,004	8,420	77	33	22,081	8,453	8
...	...	...	...	36,950	18,035	...	...	36,950	18,035	9
...	...	...	...	37,394	17,684	...	...	37,394	17,684	10
...	...	...	...	45,923	21,956	...	...	45,923	21,956	11
...	...	...	...	16,895	8,520	...	...	16,895	8,520	12
...	...	...	...	21,610	7,259	...	...	21,610	7,259	13
...	...	...	...	5,555	1,556	...	...	5,555	1,556	14
...	...	...	...	41,623	11,616	...	...	41,623	11,616	15
413	325	18,085	10,920	497,710	212,679	1,754,924	882,295	2,252,634	1,094,974	
1	1	...	...	17,542	6,297	11,472	3,245	29,014	9,542	16
3	1	...	...	57,335	14,055	6,346	1,778	63,681	15,833	17
4	2	...	...	74,877	20,352	17,818	5,023	92,695	25,375	
60	49	...	...	62,840	18,134	13	7	62,853	18,141	18
101	32	...	...	14,943	3,403	...	...	14,943	3,403	19
...	...	...	...	15,697	4,770	...	...	15,697	4,770	20
203	103	...	...	10,017	3,241	...	...	10,017	3,241	21
301	385	769	220	39,865	12,711	4,391	1,412	44,256	14,123	22
...	...	...	...	3,864	1,514	...	...	3,864	1,514	23
...	...	...	...	811	488	...	...	811	488	24
86	45	...	...	4,206	2,125	...	...	4,206	2,125	25
7	4	72	16	2,305	1,379	580	172	2,885	1,551	26
40	23	...	...	14,540	6,112	...	...	14,540	6,112	27
798	646	841	236	169,088	53,877	4,984	1,591	174,072	55,468	
413	325	18,085	10,920	497,710	212,679	1,754,924	882,295	2,252,634	1,094,974	
4	2	...	...	74,877	20,352	17,818	5,023	92,695	25,375	
798	646	841	236	169,088	53,877	4,984	1,591	174,072	55,468	
...	...	35	23	36,208	15,182	419,288	113,491	455,496	128,673	
1,215	973	18,961	11,179	777,883	302,090	2,197,014	1,002,400	2,974,897	1,304,490	
615	452	20,749	12,930	779,232	292,907	2,235,177	886,970	3,014,409	1,179,877	
600	521	...	...	...	9,183	...	115,430	...	124,613	
...	...	1,788	1,751	1,349	...	38,163	...	39,512	...	

## APPENDIX B.—

TOTAL QUANTITY OF FISH LANDED.—STATEMENT of the Total Quantity

No.	DISTRICTS.	FLAT							
		TURBOT.				HALIBUT.			
		Line and Net.		Trawl.		Line.		Trawl.	
		Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£
	<b>EAST COAST.</b>								
1	Eyemouth, - - -	...	...	...	...	7	15	...	...
2	Leith, - - -	1	5	2,128	5,231	182	342	1,099	2,268
3	Anstruther, - - -	...	...	...	...	19	35	...	...
4	Montrose, - - -	...	...	88	425	67	175	26	90
5	Stonehaven, - - -	...	...	...	...	17	17	...	...
6	Aberdeen, - - -	3	11	1,684	7,872	34,685	79,682	7,110	16,355
7	Peterhead, - - -	...	...	...	...	119	229	...	...
8	Fraserburgh, - - -	2	5	...	...	201	409	...	...
9	Banff, - - -	...	...	...	...	4	6	...	...
10	Buckie, - - -	...	...	...	...	69	112	...	...
11	Findhorn, - - -	...	...	...	...	...	...	...	...
12	Cromarty, - - -	...	...	...	...	...	...	...	...
13	Helmsdale, - - -	...	...	...	...	7	14	...	...
14	Lybster, - - -	...	...	...	...	...	...	...	...
15	Wick, - - -	...	...	...	...	146	230	...	...
	East Coast Totals carried down, - - }	6	21	3,900	13,528	35,523	81,266	8,235	18,713
	<b>Orkney and Shetland.</b>								
16	Orkney, - - -	...	...	...	...	91	156	...	...
17	Shetland, - - -	...	...	...	...	862	1,455	...	...
	Orkney and Shetland } Totals carried down, }	...	...	...	...	953	1,611	...	...
	<b>WEST COAST.</b>								
118	Stornoway, - - -	25	13	1	1	1,411	1,032	2	1
29	Barra, - - -	...	...	...	...	258	302	...	...
20	Loch Broom, - - -	...	...	...	...	1	2	...	...
21	Loch Carron and Skye, - - -	3	5	...	...	39	101	...	...
22	Fort-William, - - -	1	1	19	48	242	467	1	2
23	Campbeltown, - - -	10	26	...	...	3	6	...	...
24	Inveraray, - - -	...	...	...	...	...	...	...	...
25	Rothsay, - - -	...	...	...	...	...	...	...	...
26	Greenock, - - -	...	...	3	6	798	1,495	...	...
27	Ballantrae, - - -	63	179	...	...	22	46	...	...
	West Coast Totals carried down, - - }	102	224	23	55	2,774	3,451	3	3
	<b>Totals brought down.</b>								
	East Coast, - - -	6	21	3,900	13,528	35,523	81,266	8,235	18,713
	Orkney and Shetland, - - -	...	...	...	...	953	1,611	...	...
	West Coast, - - -	102	224	23	55	2,774	3,451	3	3
	Foreign Fishing Vessels, - - -	...	...	7	17	...	...	2,208	2,751
	Grand Totals for 1912, - - -	108	245	3,930	13,600	39,250	86,328	10,446	21,467
	Grand Totals for 1911, - - -	144	264	4,385	15,096	44,426	87,331	10,952	20,394
	Increase in 1912, - - -	...	...	...	...	...	...	...	1,073
	Decrease in 1912, - - -	36	19	455	1,496	5,176	1,003	506	...

No. I.—continued.

and Value of the different kinds of Fish landed in Scotland in the Year 1912.

FISH.

SOLE (LEMON SOLE).				FLOUNDERS.				PLAICE.				No.
Line and Net.		Trawl.		Line and Net.		Trawl.		Line and Net.		Trawl.		
Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	
4	9	...	...	...	...	587	775	...	...	10,341	12,384	1
4	8	8,130	15,241	1,569	1,121	...	...	1,184	1,014	...	...	2
4	8	...	...	59	59	...	...	2,668	2,032	10	20	3
4	12	1,856	3,507	7	5	4	4	973	742	2,028	2,270	4
25	25	...	...	...	...	...	...	45	45	...	...	5
...	...	29,291	62,064	...	...	...	...	283	433	19,788	37,119	6
23	46	...	...	291	149	...	...	479	630	...	...	7
...	...	1	2	...	...	...	...	54	82	3	3	8
355	1,103	...	...	54	36	...	...	87	241	...	...	9
...	...	...	...	129	116	...	...	24	24	...	...	10
...	...	...	...	270	230	...	...	2,060	2,026	...	...	11
...	...	...	...	346	163	...	...	1,377	974	...	...	12
...	...	...	...	218	149	...	...	1,608	1,062	...	...	13
...	...	...	...	1	1	...	...	...	...	...	...	14
...	...	...	...	908	291	...	...	8	14	...	...	15
419	1,211	39,278	80,814	3,852	2,320	591	779	10,850	9,319	32,170	51,796	
...	...	1	1	26	13	...	...	...	...	1	1	16
...	...	...	...	...	...	...	...	43	24	...	...	17
...	...	1	1	26	13	...	...	43	24	1	1	
...	...	...	...	1,976	654	...	...	...	...	...	...	18
...	...	...	...	1,311	328	...	...	316	128	...	...	19
...	...	...	...	26	15	...	...	57	37	...	...	20
63	50	...	...	122	70	...	...	362	208	...	...	21
...	...	57	77	333	226	...	...	22	28	366	443	22
...	...	...	...	...	...	...	...	348	462	...	...	23
...	...	...	...	...	...	...	...	6	9	...	...	24
...	...	...	...	132	183	...	...	118	190	...	...	25
...	...	6	11	296	304	...	...	130	181	10	14	26
22	82	...	...	779	453	285	392	2,340	2,981	578	801	27
85	132	63	88	4,975	2,238	235	392	3,699	4,174	954	1,258	
419	1,211	39,278	80,814	3,852	2,320	591	779	10,850	9,319	32,170	51,796	
...	...	1	1	26	13	...	...	43	24	1	1	
85	132	63	88	4,975	2,238	285	392	3,699	4,174	954	1,258	
...	...	972	1,167	...	...	...	...	...	...	2,521	3,125	
504	1,343	40,314	82,070	8,853	4,571	876	1,171	14,592	13,517	35,646	56,180	
444	1,264	44,007	82,747	9,286	5,159	1,708	2,147	14,210	14,673	41,562	53,243	
60	79	...	...	...	...	...	...	382	...	...	...	
...	...	3,693	677	433	588	832	976	...	1,156	5,916	2,063	



## APPENDIX B.—

## TOTAL QUANTITY OF FISH LANDED.—STATEMENT of the Total Quantity

No.	DISTRICTS.	FLAT FISH							
		BRILL.				DABS.			
		Line and Net.		Trawl.		Line and Net.		Trawl.	
		Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£
	<b>EAST COAST.</b>								
1	Eyemouth, - - -	...	...	...	...	...	...	...	...
2	Leith, - - - -	...	...	32	79	91	71	5,086	1,377
3	Anstruther, - - -	...	...	...	...	126	88	...	...
4	Montrose, - - -	...	...	4	8	452	246	1,090	404
5	Stonehaven, - - -	...	...	...	...	128	64	...	...
6	Aberdeen, - - -	...	...	203	436	190	115	1,988	865
7	Peterhead, - - -	...	...	...	...	422	230	...	...
8	Fraserburgh, - - -	...	...	...	...	79	62	...	...
9	Banff, - - - -	...	...	...	...	...	...	...	...
10	Buckie, - - - -	...	...	...	...	...	...	...	...
11	Findhorn, - - -	...	...	...	...	...	...	...	...
12	Cromarty, - - -	...	...	...	...	39	22	...	...
13	Helmsdale, - - -	...	...	...	...	...	...	...	...
14	Lvbster, - - - -	...	...	...	...	...	...	...	...
15	Wick, - - - - -	...	...	...	...	65	30	...	...
	East Coast Totals carried down, - - }	...	...	239	523	1,592	928	8,164	2,646
	<b>Orkney and Shetland.</b>								
16	Orkney, - - - -	...	...	...	...	10	5	...	...
17	Shetland, - - -	...	...	...	...	302	134	...	...
	Orkney and Shetland } Totals carried down, }	...	...	...	...	312	139	...	...
	<b>WEST COAST.</b>								
18	Stornoway, - - -	...	...	...	...	...	...	...	...
19	Barra, - - - - -	...	...	...	...	50	10	...	...
20	Loch Broom, - - -	...	...	...	...	...	...	...	...
21	Loch Carron and Skye,	...	...	...	...	5	2	...	...
22	Fort-William, - - -	...	...	3	9	...	...	364	93
23	Campbeltown, - - -	...	...	...	...	...	...	...	...
24	Inveraray, - - -	...	...	...	...	...	...	...	...
25	Rothesay, - - - -	...	...	...	...	...	...	...	...
26	Greenock, - - - -	...	...	...	...	...	...	60	11
27	Ballantrae, - - -	10	18	...	...	21	12	...	...
	West Coast Totals carried down, - - }	10	18	3	9	76	24	424	104
	<b>Totals brought down.</b>								
	East Coast, - - -	...	...	239	523	1,592	928	8,164	2,646
	Orkney and Shetland, - - -	...	...	...	...	312	139	...	...
	West Coast, - - -	10	18	3	9	76	24	424	104
	Foreign Fishing Vessels, - - -	...	...	6	10	...	...	33	8
	Grand Totals for 1912,	10	18	248	542	1,980	1,091	8,621	2,758
	Grand Totals for 1911,	1	2	154	376	3,374	1,794	10,386	3,133
	Increase in 1912 - - -	9	16	94	166	...	...	...	...
	Decrease in 1912, - - -	...	...	...	...	1,394	703	1,765	375

No. I.—continued.

and Value of the different kinds of Fish landed in Scotland in the year 1912.

—concluded.

WITCHES.				MEGRIMS.				TOTALS OF FLAT FISH.				GRAND TOTALS OF FLAT FISH.		No.
Line.		Trawl.		Line.		Trawl.		Line and Net.		Trawl.		Cwts.	£	
Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£			Cwts.
...	...	...	...	...	...	...	...	11	24	...	...	11	24	1
...	...	2,214	2,588	...	...	1,405	1,250	3,081	2,561	31,022	41,193	34,053	43,754	2
...	...	...	...	...	...	...	...	2,876	2,222	10	20	2,886	2,242	3
...	...	290	354	...	...	218	142	1,503	1,180	5,604	7,204	7,107	8,384	4
...	...	...	...	...	...	...	...	215	151	...	...	215	151	5
...	...	14,971	15,635	2	2	15,370	16,816	35,163	80,243	90,405	157,162	125,568	237,405	6
...	...	...	...	...	...	...	...	1,334	1,284	...	...	1,334	1,284	7
...	...	...	...	...	...	...	...	336	558	4	5	340	563	8
...	...	...	...	...	...	...	...	500	1,386	...	...	500	1,386	9
...	...	...	...	...	...	...	...	222	252	...	...	222	252	10
...	...	...	...	...	...	...	...	2,330	2,256	...	...	2,330	2,256	11
...	...	...	...	...	...	...	...	1,762	1,159	...	...	1,762	1,159	12
...	...	...	...	...	...	...	...	1,833	1,225	...	...	1,833	1,225	13
...	...	...	...	...	...	...	...	1	1	...	...	1	1	14
...	...	...	...	...	...	...	...	1,127	565	...	...	1,127	565	15
...	...	17,475	18,577	2	2	16,993	18,208	52,244	95,067	127,045	205,584	179,289	300,651	
...	...	...	...	...	...	...	...	127	174	2	2	129	176	16
...	...	...	...	...	...	...	...	1,207	1,613	...	...	1,207	1,613	17
...	...	...	...	...	...	...	...	1,334	1,787	2	2	1,336	1,789	
...	...	4	1	...	...	...	...	3,412	1,699	7	3	3,419	1,702	18
...	...	...	...	...	...	...	...	1,935	768	...	...	1,935	768	19
...	...	...	...	...	...	...	...	84	54	...	...	84	54	20
...	...	...	...	...	...	...	...	594	436	...	...	594	436	21
...	...	137	54	...	...	136	64	598	722	1,083	790	1,681	1,512	22
...	...	...	...	...	...	...	...	361	494	...	...	361	494	23
...	...	...	...	...	...	...	...	6	9	...	...	6	9	24
...	...	...	...	...	...	...	...	250	373	...	...	250	373	25
...	...	22	7	...	...	8	3	1,224	1,980	109	52	1,333	2,032	26
...	...	...	...	...	...	...	...	3,257	3,726	863	1,193	4,120	4,919	27
...	...	163	62	...	...	144	67	11,721	10,261	2,062	2,038	13,783	12,299	
...	...	17,475	18,577	2	2	16,993	18,208	52,244	95,067	127,045	205,584	179,289	300,651	
...	...	163	62	...	...	144	67	1,334	1,787	2	2	1,336	1,789	
...	...	1,231	611	...	...	656	185	11,721	10,261	2,062	2,038	13,783	12,299	
...	...	...	...	...	...	...	...	...	...	7,634	7,874	7,634	7,874	
...	...	18,869	19,250	2	2	17,793	18,460	65,299	107,115	136,743	215,498	202,042	322,613	
...	...	16,405	16,675	32	8	16,395	14,730	71,917	110,495	145,954	213,541	217,871	324,036	
...	...	2,464	2,575	...	...	1,398	3,730	...	...	...	1,957	...	...	
...	...	...	...	30	6	...	...	6,618	3,380	9,211	...	15,829	1,423	

## APPENDIX B.—

## TOTAL QUANTITY OF FISH LANDED.—STATEMENT of the Total Quantity

No.	DISTRICTS.	SKATES AND RAYS.				SQUIDS.		UNCLASSIFIED	
		Line and Net.		Trawl.		Trawl.		Line and Net.	
		Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£
<b>EAST COAST.</b>									
1	Eyemouth, . . . . .	50	32	...	...	...	...	...	...
2	Leith, . . . . .	755	359	4,022	860	...	...	67	40
3	Anstruther, . . . . .	113	43	...	...	...	...	...	...
4	Montrose, . . . . .	496	122	724	194	...	...	...	...
5	Stonehaven, . . . . .	129	25	...	...	...	...	...	...
6	Aberdeen, . . . . .	56,804	14,647	45,085	11,475	157	57	18	2
7	Peterhead, . . . . .	516	142	...	...	...	...	...	...
8	Fraserburgh, . . . . .	1,079	466	...	...	...	...	...	...
9	Banff, . . . . .	28	8	...	...	...	...	...	...
10	Buckie, . . . . .	199	131	...	...	...	...	...	...
11	Findhorn, . . . . .	186	57	...	...	...	...	2	1
12	Cromarty, . . . . .	15	4	...	...	...	...	...	...
13	Helmsdale, . . . . .	23	7	...	...	...	...	...	...
14	Lybster, . . . . .	...	...	...	...	...	...	24	5
15	Wick, . . . . .	235	71	...	...	...	...	14	50
East Coast Totals carried down, .		60,638	16,114	49,831	12,529	157	57	125	98
<b>Orkney and Shetland.</b>									
16	Orkney, . . . . .	116	52	...	...	...	...	...	...
17	Shetland, . . . . .	1,182	161	...	...	...	...	...	...
Orkney and Shetland Totals carried down, . . . . .		1,298	213	...	...	...	...	...	...
<b>WEST COAST.</b>									
18	Stornoway, . . . . .	7,428	1,193	6	2	...	...	3,200	640
19	Barra, . . . . .	859	171	...	...	...	...	...	...
20	Loch Broom, . . . . .	39	14	...	...	...	...	...	...
21	Loch Carron and Skye, . . . . .	318	95	...	...	...	...	224	62
22	Fort-William, . . . . .	16,464	4,708	304	93	...	...	126	9
23	Campbeltown, . . . . .	172	69	...	...	...	...	...	...
24	Inveraray, . . . . .	9	2	...	...	...	...	3	2
25	Rothesay, . . . . .	326	119	...	...	...	...	...	...
26	Greenock, . . . . .	416	78	42	8	...	...	...	...
27	Ballantrae, . . . . .	4,250	1,392	127	44	...	...	30	3
West Coast Totals carried down, .		30,281	7,841	479	147	...	...	3,583	716
<b>Totals brought down.</b>									
East Coast, . . . . .		60,638	16,114	49,831	12,529	157	57	125	98
Orkney and Shetland, . . . . .		1,298	213	...	...	...	...	...	...
West Coast, . . . . .		30,281	7,841	479	147	...	...	3,583	716
Foreign Fishing Vessels, . . . . .		...	...	1,483	241	...	...	...	...
Grand Totals for 1912, . . . . .		92,217	24,168	51,793	12,917	157	57	3,708	814
Grand Totals for 1911, . . . . .		97,353	22,651	50,751	11,884	234	73	3,706	666
Increase in 1912, . . . . .		...	1,517	1,042	1,033	...	...	2	148
Decrease in 1912, . . . . .		5,136	...	...	...	77	16	...	...

Note.—Figures given under "Trawl" exclude Herrings and Mackerel taken

No. I.—continued.

and Value of the different kinds of Fish landed in Scotland in the Year 1912.

KINDS.		GRAND TOTAL QUANTITY AND VALUE OF FISH LANDED.								No.
Trawl.		Net (Pelagic).		Line and Net (Demersal).		Trawl.		TOTAL.		
Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	Cwts.	£	
...	...	107,805	31,557	5,462	4,062	...	...	113,267	35,619	1
478	142	14,650	5,184	25,833	16,572	319,230	178,157	359,713	199,893	2
...	...	77,381	25,078	20,114	11,768	10	20	97,505	36,866	3
19	11	29,542	9,844	33,596	19,853	52,315	32,150	115,453	61,847	4
...	...	9,144	2,575	10,789	5,429	...	...	19,933	8,004	5
1,883	228	226,575	81,102	247,792	152,769	1,562,701	890,501	2,037,068	1,124,372	6
...	...	693,323	237,320	29,261	10,257	...	...	722,584	247,577	7
...	...	703,328	250,036	23,419	9,444	81	38	726,828	259,518	8
...	...	26,346	8,636	37,478	19,429	...	...	63,824	28,065	9
...	...	40,765	12,735	37,815	18,067	...	...	78,580	30,802	10
...	...	42,646	10,180	48,441	24,270	...	...	91,087	34,400	11
...	...	174	39	18,672	9,683	...	...	18,846	9,722	12
...	...	119	27	23,466	8,491	...	...	23,585	8,518	13
...	...	899	274	5,580	1,562	...	...	6,479	1,836	14
...	...	598,766	224,239	42,999	12,302	...	...	641,765	236,541	15
2,380	381	2,571,463	898,776	610,717	323,958	1,934,337	1,100,846	5,116,517	2,323,580	
...	...	541,171	221,664	17,785	6,523	11,474	3,247	570,430	231,434	16
...	...	1,401,464	526,168	59,724	15,829	6,346	1,778	1,467,534	543,775	17
...	...	1,942,635	747,8	77,509	22,352	17,820	5,025	2,037,964	775,209	
5	1	290,777	108,861	76,880	21,666	31	13	367,688	130,540	18
...	...	63,262	33,489	17,737	4,342	...	...	80,999	37,831	19
...	...	11,514	3,982	15,820	4,838	...	...	27,334	8,820	20
...	...	63,702	18,579	11,153	3,834	...	...	74,855	22,413	21
...	...	89,886	32,437	57,053	18,150	5,778	2,295	152,717	52,882	22
...	...	106,949	36,609	4,397	2,077	...	...	111,346	38,686	23
...	...	11,059	2,824	829	501	...	...	11,888	3,325	24
...	...	17,579	6,959	4,782	2,617	...	...	22,361	9,576	25
...	...	18,994	7,888	3,945	3,437	731	232	23,670	11,577	26
...	...	67,420	23,940	22,077	11,233	990	1,237	90,487	36,410	27
5	1	741,142	275,568	214,673	72,695	7,530	3,777	963,345	352,040	
2,380	381	2,571,463	898,776	610,717	323,958	1,934,337	1,100,846	5,116,517	2,323,580	
...	...	1,942,635	747,832	77,509	22,352	17,820	5,025	2,037,964	775,209	
5	1	741,142	275,568	214,673	72,695	7,530	3,777	963,345	352,040	
4,600	939	67	28	36,208	15,182	433,005	122,545	469,230	137,755	
6,985	1,321	5,255,307	1,922,204	939,107	434,187	2,392,692	1,232,193	8,587,106	3,588,584	
6,992	1,352	5,120,658	1,520,035	952,208	426,719	2,439,108	1,113,820	8,511,974	3,060,574	
...	...	134,649	402,169	...	7,468	...	118,373	75,132	528,010	
7	31	...	...	13,101	...	46,416	...	...	...	

by this method, and included under "Net (Pelagic)." See pp. 120-121.



## APPENDIX B.—

TOTAL QUANTITY OF FISH LANDED.—STATEMENT of the  
Total Value of all Fish

No.	DISTRICTS.	SHELL					
		Oysters.		Mussels.		Clams.	
	<b>EAST COAST.</b>	No.	£	Cwts.	£	Cwts.	£
1	Eyemouth, . . . . .	...	...	...	...	...	...
2	Leith, . . . . .	...	...	2,360	236	8,227	1,227
3	Anstruther, . . . . .	...	...	13,531	630	...	...
4	Montrose, . . . . .	...	...	54,486	2,603	45	7
5	Stonehaven, . . . . .	...	...	...	...	...	...
6	Aberdeen, . . . . .	...	...	...	...	28	2
7	Peterhead, . . . . .	...	...	241	16	...	...
8	Fraserburgh, . . . . .	...	...	...	...	...	...
9	Banff, . . . . .	...	...	...	...	...	...
10	Buckie, . . . . .	...	...	...	...	...	...
11	Findhorn, . . . . .	...	...	4,620	231	...	...
12	Cromarty, . . . . .	...	...	3,615	230	...	...
13	Helmsdale, . . . . .	...	...	2,000	100	...	...
14	Lybster, . . . . .	...	...	...	...	...	...
15	Wick, . . . . .	...	...	...	...	...	...
	East Coast Totals carried down,	...	...	80,853	4,096	8,300	1,236
	<b>Orkney and Shetland.</b>						
16	Orkney, . . . . .	...	...	380	19	...	...
17	Shetland, . . . . .	...	...	...	...	...	...
	Orkney and Shetland Totals } carried down, . . . . . }	...	...	380	19	...	...
	<b>WEST COAST.</b>						
18	Stornoway, . . . . .	...	...	78	11	...	...
19	Barra, . . . . .	...	...	16	2	...	...
20	Loch Broom, . . . . .	...	...	1,936	97	...	...
21	Loch Carron and Skye, . . . . .	...	...	10	1	...	...
22	Fort-William, . . . . .	...	...	...	...	...	...
23	Campbeltown, . . . . .	...	...	210	29	...	...
24	Inveraray, . . . . .	8,588	42	10	2	...	...
25	Rothsay, . . . . .	...	...	2,508	210	...	...
26	Greenock, . . . . .	...	...	11,466	638	...	...
27	Ballantrae, . . . . .	1,319,175	4,627	2,287	229	...	...
	West Coast Totals carried down,	1,327,763	4,669	18,521	1,219	...	...
	<b>Totals brought down.</b>						
	East Coast, . . . . .	...	...	80,853	4,096	8,300	1,236
	Orkney and Shetland, . . . . .	...	...	380	19	...	...
	West Coast, . . . . .	1,327,763	4,669	18,521	1,219	...	...
	Foreign Fishing Vessels, . . . . .	...	...	...	...	...	...
	Grand Totals for 1912, . . . . .	1,327,763	4,669	99,751	5,334	8,300	1,236
	Grand Totals for 1911, . . . . .	1,154,045	4,075	103,217	5,066	10,261	1,536
	Increase in 1912, . . . . .	173,718	594	...	268	...	...
	Decrease in 1912, . . . . .	...	...	3,463	...	1,961	300

No. I.—continued.

Total Quantity and Value of the different kinds of Shell Fish, and of the landed in Scotland in the Year 1912.

FISH.							GRAND TOTAL VALUE OF ALL FISH LANDED.	No.
Lobsters.		Crabs.		Other Kinds.		Total Value.		
Hundreds.	£	Hundreds.	£	Cwts.	£	£	£	
3,770	182	341,200	1,831	118	20	2,033	37,652	1
9,876	486	475,971	2,427	3,498	555	4,931	204,824	2
14,086	557	294,375	2,002	1,581	234	3,523	40,389	3
14,671	695	187,686	1,454	2,868	413	5,172	67,019	4
1,378	75	121,460	1,207	50	5	1,287	9,291	5
414	29	23,450	199	...	...	230	1,124,602	6
148	9	15,330	121	56	6	152	247,729	7
2,319	118	140,660	1,269	940	212	1,599	261,117	8
...	...	93,000	531	472	56	587	28,652	9
1,156	36	500	3	...	...	39	30,841	10
100	8	800	4	...	...	243	34,643	11
1,330	52	17,300	51	1,825	266	599	10,321	12
4,190	260	10,408	51	439	76	487	9,005	13
290	20	3,360	17	...	...	37	1,873	14
48,961	2,966	145,933	1,306	283	55	4,327	240,868	15
102,659	5,493	1,871,433	12,473	12,130	1,948	25,246	2,348,826	
67,265	4,333	94,940	533	662	162	5,028	236,462	16
1,080	74	...	...	2,042	451	544	544,319	17
68,345	4,407	94,940	533	2,704	613	5,572	780,781	
96,909	4,317	21,160	86	881	195	4,609	135,149	18
105,451	4,852	...	...	6,591	1,288	6,142	43,973	19
66,133	3,332	...	...	967	236	3,665	12,485	20
64,915	3,571	51,300	128	6,007	1,504	5,204	27,617	21
53,064	2,066	28,640	146	2,483	614	2,826	55,708	22
45,915	2,200	383	5	2,011	468	2,702	41,388	23
13,570	829	...	...	559	146	1,019	4,344	24
1,648	96	116	5	1,142	310	621	10,197	25
4,215	264	...	...	998	130	1,082	12,639	26
18,742	750	68,100	328	4,055	2,972	8,906	45,316	27
475,562	22,277	169,699	698	25,694	7,913	36,776	388,816	
102,659	5,493	1,871,433	12,473	12,130	1,948	25,246	2,348,826	
68,345	4,407	94,940	533	2,704	613	5,572	780,781	
475,562	22,277	169,699	698	25,694	7,913	36,776	388,816	
...	...	...	...	...	...	...	137,755	
646,566	32,177	2,136,077	13,704	40,528	10,474	67,594	3,656,178	
641,968	32,101	2,357,292	14,650	40,644	9,927	67,355	3,127,929	
4,598	76	...	...	...	547	239	528,249	
...	...	221,215	946	116	...	...	...	

APPENDIX B.—No. II.—RETURN respecting Vessels arriving and Fish landed in the District of **Eyemouth** during the Year 1912, and showing the catch and value during the previous Year.

METHOD OF FISHING :—Lines, 157 Motor and 4,149 Sailing Vessels arriving; Nets, 390 Steam, 2,277 Motor, and 1,497 Sailing Vessels arriving.

Description of Fish.	Trawls, Steam.		Lines or Nets.				Total Lines.		Grand Total 1912.		Grand Total 1911.	
	Quantity	Value.	Steam.		Sail and Motor.		Quantity	Value.	Quantity	Value.	Quantity	Value.
			Cwt.	Value.	Cwt.	Value.						
Herrings, Nets . . . . .	—	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
Mackerel, " . . . . .	—	—	13,073	4,740	93,301	26,290	106,374	31,030	106,374	31,030	132,803	31,478
God, Lines . . . . .	—	—	—	—	1,431	527	1,431	527	1,431	527	1,761	596
Codling, Lines . . . . .	—	—	—	—	112	90	—	—	112	90	—	—
Ling, " " " " " "	—	—	—	—	2,408	1,109	—	—	2,408	1,109	3,229	1,438
Saithe (Coal Fish), Lines	—	—	—	—	82	55	—	—	82	55	302	156
Haddock, Lines . . . . .	—	—	—	—	2,032	2,163	—	—	2,032	2,163	4,015	3,698
Whittings, " " " " "	—	—	—	—	668	553	—	—	668	553	1,001	918
Conger Eels, " " " " "	—	—	—	—	40	21	—	—	40	21	3	2
Gurnards, " " " " "	—	—	—	—	8	8	—	—	8	8	48	10
Catfish, " " " " "	—	—	—	—	41	13	—	—	41	13	148	83
Hake, " " " " "	—	—	—	—	—	—	—	—	—	—	2	1
Halibut, " " " " "	—	—	—	—	7	15	—	—	7	15	—	—
Lemon Soles, " " " " "	—	—	—	—	4	9	—	—	4	9	6	20
Flounders, " " " " "	—	—	—	—	—	—	—	—	—	—	3	5
Skates and Rays, Lines . .	—	—	—	—	60	32	—	—	60	32	235	96
Totals . . . . .	—	—	13,073	4,740	100,194	30,879	107,805	31,557	113,267	35,619	143,561	38,502
<b>SHELL FISH.</b>												
Lobsters . . . . .	—	—	—	—	—	—	—	—	—	—	3,770	155
Crabs . . . . .	—	—	—	—	—	—	—	—	—	—	341,200	2,021
Mussels . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Unclassified . . . . .	—	—	—	—	—	—	—	—	—	—	118	24
Total Value . . . . .	—	—	—	—	—	—	—	—	—	—	—	2,200
TOTAL VALUE OF ALL FISH	—	—	—	—	—	—	—	—	—	—	—	40,702
Fish used for Bait . . . . .	—	—	—	—	—	—	—	—	—	—	—	452
(included above)	—	—	—	—	—	—	—	—	—	—	1,030	—

APPENDIX B.—No. II.—*continued*.—RETURN respecting Vessels arriving and Fish landed in the District of Leith during the Year 1912, and showing the catch and value during the previous Year.

Herrings, Nets	272	134	250	54	10,446	3,404	10,696	3,458	—	—	10,968	3,592	11,520	3,312
Sprats, "	—	—	—	—	2,504	473	2,504	473	—	—	2,504	473	9,873	1,731
Sparlings, "	—	—	—	—	215	634	215	634	—	—	215	634	148	294
Mackerel, "	748	327	—	—	215	158	215	158	—	—	963	485	1,013	388
Codling, Lines	—	—	3,244	1,824	12,431	7,067	—	—	15,675	8,891	86,664	43,047	91,743	42,141
" Nets	70,157	33,813	301	212	832	343	—	—	490	346	5,636	2,479	6,703	2,852
Ling, Lines	5,146	2,133	—	—	—	—	—	—	—	—	5	1	16	5
" Nets	5	—	—	—	—	—	—	—	—	—	56	903	4,544	734
Torsk (Tusk), Nets	—	—	197	22	185	34	—	—	382	56	5,435	—	—	—
Saithe (Coal Fish), Lines	5,053	847	—	—	3,966	3,455	—	—	3,966	3,455	153,722	83,909	207,776	90,859
" Nets	149,756	80,454	—	—	306	185	—	—	306	185	39,438	13,709	35,566	11,306
Haddock, Lines	39,132	13,524	—	—	—	—	—	—	—	—	—	—	—	—
" Nets	—	—	4	3	—	—	88	—	4	3	98	227	184	335
Conger Eels, Lines	6	1	—	—	88	223	—	—	—	—	—	—	—	—
" Nets	1,81	281	—	—	—	—	—	—	—	—	—	—	—	—
Gurnards, "	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Catfish, Lines	10,541	4,125	—	—	237	110	—	—	237	110	10,778	4,235	11,497	4,044
" Nets	1,911	690	—	—	—	—	—	—	—	—	1,911	690	1,811	543
Monks (Anglers), Nets	184	73	—	—	—	—	—	—	—	—	184	73	36	18
Hake, Nets	—	—	—	—	—	—	—	—	—	—	—	—	16	7
Squids, "	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Turbot, Lines	2,128	5,231	—	—	1	5	—	—	1	5	2,129	5,236	2,279	5,262
" Nets	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Halibut, Lines	1,099	2,268	137	315	25	27	—	—	182	342	1,281	2,610	1,325	2,636
" Nets	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lemon Soles, Lines	8,130	15,241	—	—	4	8	—	—	4	8	8,134	15,249	9,860	17,243
" Nets	—	—	—	—	—	—	—	—	—	—	—	—	—	—

[Continued.]















APPENDIX B.—No. II.—*continued*.—RETURN respecting Vessels arriving and Fish landed in the District of **Aberdeen** during the Year 1912, and showing the catch and value during the previous Year.

METHOD OF FISHING :—Trawls, 11,010 Vessels arriving; Lines, 1,556 Steam and 4,150 Sailing Vessels arriving; Nets, 2,810 Steam and 1,332 Sailing Vessels arriving.

Herrings, Nets . . . . .	5,366	2,503	148,570	56,645	68,483	20,099	217,053	76,744	—	—	222,419	79,247	287,140	95,767
Mackerel, " . . . . .	3,557	1,703	444	112	155	40	599	152	—	—	4,156	1,855	5,659	1,996
Cod, Lines . . . . .	248,472	136,704	47,276	19,780	1,844	968	—	—	49,120	20,748	297,592	157,452	371,208	160,992
" Nets . . . . .	—	—	4,674	1,768	1,409	679	—	—	6,083	2,447	251,265	114,523	277,447	104,364
Codling, Lines . . . . .	245,182	112,076	74,118	25,226	298	135	—	—	74,416	25,361	129,795	39,330	175,994	47,059
" Nets . . . . .	55,379	13,969	10,526	3,874	—	—	—	—	10,526	3,874	12,121	4,309	15,761	4,880
Torsk (Tusk), Lines . . . . .	1,595	435	—	—	—	—	—	—	7,082	1,252	150,913	23,051	113,282	15,922
" Nets . . . . .	143,831	21,799	6,199	1,077	883	175	—	—	345	150	25,464	13,405	40,147	16,506
Saithe (Coal Fish), Lines . . . . .	—	—	345	150	—	—	—	—	—	—	—	—	—	—
" Nets . . . . .	25,119	13,255	—	—	—	—	—	—	—	—	—	—	—	—
Haddock's, ex. Large, Lines . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
" Nets . . . . .	169,264	166,644	—	—	12	9	—	—	12	9	169,276	166,653	193,855	162,547
" Large, Lines . . . . .	103,657	79,409	—	—	2,860	1,886	—	—	2,860	1,886	106,517	81,295	104,625	63,578
" Medium, Lines . . . . .	266,963	113,125	—	—	—	97	—	—	—	—	267,208	113,222	267,806	78,955
" Small, Lines . . . . .	109,248	45,531	—	—	245	97	—	—	245	97	112,255	46,701	88,931	35,870
" Nets . . . . .	—	—	—	—	3,007	1,170	—	—	3,007	1,170	11,255	4,701	8,931	3,702
Whittings, Lines . . . . .	—	—	1,453	526	—	5	—	—	1,465	531	2,144	746	3,702	1,282
" Nets . . . . .	679	215	—	—	—	—	—	—	—	—	3,835	369	2,809	299
Conger Eels, Lines . . . . .	3,835	369	—	—	—	—	—	—	—	—	14,371	2,688	14,741	2,349
" Nets . . . . .	14,134	2,658	235	30	2	—	—	—	237	30	19,922	4,548	19,044	3,545
Monks (Anglers), Nets . . . . .	19,922	4,548	—	—	—	—	—	—	—	—	18,300	11,164	20,549	12,948
Hake, Lines . . . . .	17,891	10,842	409 <sup>2</sup>	322	—	—	—	—	409	322	157	57	198	61
" Nets . . . . .	157	57	—	—	—	—	—	—	—	—	1,687	7,883	1,905	8,962
Squids, " . . . . .	1,684	7,872	3	11	—	—	—	—	3	11	—	—	—	—
Turbot, Lines . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—
" Nets . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—

[Continued.]

## Aberdeen—continued.

Description of Fish.	Trawls, Steam.		Lines or Nets.		Total Nets.		Total Lines.		Grand Total 1912.		Grand Total 1911.	
	Steam.		Sail and Motor.		Total Nets.		Total Lines.		Grand Total 1912.		Grand Total 1911.	
	Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.
Halibut, Lines . . . . .	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
Nets . . . . .	7,110	16,355	65	169	—	—	34,685	79,682	41,795	96,037	46,913	95,012
Lemon Soles, Nets . . . . .	29,291	62,064	—	—	—	—	—	—	29,291	62,064	31,051	60,125
Plaice, Large, " . . . . .	940	1,366	—	—	—	—	—	—	940	1,366	997	1,347
Medium, Nets . . . . .	14,199	30,773	—	—	—	—	—	—	14,199	30,773	14,449	29,579
Small, Lines . . . . .	—	—	283	433	—	—	283	433	4,932	5,413	5,297	5,981
Nets . . . . .	4,649	4,980	—	—	—	—	—	—	203	436	111	265
Brill, Nets . . . . .	203	436	—	—	—	—	190	115	2,178	980	2,715	1,238
Dabs, Lines . . . . .	—	—	190	115	—	—	—	—	14,971	15,635	12,063	13,460
Nets . . . . .	1,988	865	—	—	—	—	—	—	15,372	16,818	14,417	13,472
Witches, Nets . . . . .	14,971	15,635	—	—	—	—	2	2	101,889	26,122	108,426	24,985
Megrim, Lines . . . . .	—	—	—	—	—	—	—	—	1,901	230	710	127
Nets . . . . .	15,370	16,816	—	—	—	—	56,804	14,647	—	—	—	—
Skates and Rays, Lines . . . . .	—	—	833	211	—	—	—	—	—	—	—	—
Nets . . . . .	45,085	11,475	18	2	—	—	18	2	—	—	—	—
Unclassified kinds, Lines . . . . .	—	—	—	—	—	—	—	—	—	—	—	—
Nets . . . . .	1,883	228	—	—	—	—	—	—	—	—	—	—
Totals . . . . .	1,571,624	894,707	384,863	20 3,474	80,581	26,191	217,652	152,769	2,037,068	1,124,372	2,241,952	1,063,473
SHELL FISH.												
Lobsters . . . . .	—	—	—	—	—	—	—	—	—	—	414	29
Crabs . . . . .	—	—	—	—	—	—	—	—	—	—	23,450	199
Clams . . . . .	—	—	—	—	—	—	—	—	—	—	2	2
Cwts. . . . .	—	—	—	—	—	—	—	—	—	—	28	2
Total Value . . . . .	—	—	—	—	—	—	—	—	—	—	—	230
TOTAL VALUE OF ALL FISH . . . . .	—	—	—	—	—	—	—	—	—	—	—	1,124,602
Fish used for Manure . . . . .	—	—	—	—	—	—	—	—	—	—	—	2,900
Bait . . . . .	—	—	—	—	—	—	—	—	—	—	—	229
(included above)	—	—	—	—	—	—	—	—	—	—	—	215
82 . . . . .	—	—	—	—	—	—	—	—	—	—	—	82

Note.—Landed by Motor Boats (included above)—Herrings, 7,856 cwts. valued at £2,544; White-fish, 1,012 cwts. valued at £423. Totals 8,868 cwts. valued at £2,967.

Landed by English Vessels—42,158 cwts. valued at £24,044 (included above).

Landed by Foreign Vessels—Cod and Codlings, 283,348 cwts.—£74,800; Haddocks, 62,376 cwts.—£22,207; other kinds, 91,678 cwts.—£28,327.

Total, 437,402 cwts.—£125,334 (not included above).

APPENDIX B.—No. II.—continued.—RETURN respecting Vessels arriving and Fish landed in the District of Peterhead during the Year 1912, and showing the catch and value during the previous Year.

METHOD OF FISHING :—Lines, 152 Steam and 6,377 Sailing Vessels arriving ; Nets, 6,751 Steam, 5,393 Sailing, and 41 Motor Vessels arriving.

Herrings, Nets . . . . .	401,453	142,562	288,915	94,253	690,368	236,815	690,368	236,815	672,525	185,547
Mackerel, " . . . . .	1,560	269	1,395	236	2,955	505	2,955	505	3,894	699
Cod and Codling, Lines . . . . .	4,493	1,399	10,288	3,991	—	—	14,781	5,390	14,872	5,278
Ling, Lines . . . . .	833	263	402	133	—	—	1,235	396	2,266	781
Torsk (Tusk), Lines . . . . .	33	11	7	4	—	—	40	15	190	58
Saithe (Coal Fish), Lines . . . . .	4,803	837	3,937	750	—	—	8,740	1,557	7,401	1,340
Haddocks, Lines . . . . .	—	—	1,944	1,229	—	—	1,944	1,229	2,051	1,394
Whittings, " . . . . .	—	—	527	192	—	—	527	192	578	194
Conger Eels, " . . . . .	41	17	16	6	—	—	57	23	—	40
Gurnards, " . . . . .	—	—	20	5	—	—	20	5	—	—
Catfish, Lines . . . . .	8	3	55	18	—	—	63	21	—	37
Hake, " . . . . .	4	3	—	—	—	—	4	3	6	5
Halibut, " . . . . .	92	175	—	—	—	—	119	229	273	588
Lenon Soles, Lines . . . . .	—	—	23	46	—	—	23	46	30	58
Flounders, " . . . . .	—	—	291	149	—	—	291	149	275	135
Plaice, " . . . . .	—	—	479	630	—	—	479	630	969	1,334
Dabs, " . . . . .	—	—	422	230	—	—	422	230	938	453
Megrimms, Nets . . . . .	—	—	—	—	—	—	—	—	2	1
Skates and Rays, Lines . . . . .	469	128	47	14	—	—	516	142	1,060	276
Totals . . . . .	413,789	145,667	308,795	101,910	693,323	237,320	29,261	10,257	707,542	198,218
SHELL FISH.										
Lobsters . . . . .	—	—	—	—	—	—	—	—	9	405
Crabs . . . . .	—	—	—	—	—	—	—	—	121	18,720
Mussels . . . . .	—	—	—	—	—	—	—	—	16	292
Unclassified . . . . .	—	—	—	—	—	—	—	—	6	86
Total Value . . . . .	—	—	—	—	—	—	—	—	152	—
TOTAL VALUE OF ALL FISH	—	—	—	—	—	—	—	—	247,729	198,440
Fish used for Manure . . . . .	—	—	—	—	—	—	—	—	—	41
" " Bait . . . . .	—	—	—	—	—	—	—	—	—	1,102
(included above)	—	—	—	—	—	—	—	—	3,448	—



APPENDIX B.—No. II.—*continued.*—RETURN respecting Vessels arriving and Fish landed in the District of **Fraserburgh** during the Year 1912, and showing the catch and value during the previous Year.

METHOD OF FISHING:—Trawls, 2 Vessels arriving; Lines, 12 Steam and 7,733 Sailing Vessels arriving; Nets, 5,487 Steam, 417 Motor, and 7,517 Sailing Vessels arriving.

Description of Fish.	Trawls, Steam.		Lines or Nets.				Total Nets.		Total Lines.		Grand Total 1912.		Grand Total 1911.	
	Quantity	Value.	Steam.		Sail and Motor.		Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.
			Cwt.	£	Cwt.	£								
Herrings, Nets . . . . .	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
Mackerel, " . . . . .	—	—	308,051	118,379	392,944	131,254	700,995	249,633	—	—	700,995	249,633	—	—
Cod, Lines . . . . .	—	—	746	136	1,587	267	2,333	403	—	—	2,333	403	—	—
" Nets . . . . .	12	7	—	43	11,081	3,832	—	—	11,175	3,875	12,644	4,363	10,681	4,030
Ling, Lines . . . . .	—	—	—	—	1,457	481	1,457	481	—	—	—	—	—	—
Torsk (Tusk), Lines . . . . .	—	—	170	77	852	330	—	—	1,022	407	1,022	407	880	339
Saithe (Coal Fish), Lines . . . . .	—	—	3	2	3	1	—	—	6	3	6	3	26	8
Haddock, " . . . . .	—	—	78	13	2,830	474	—	—	2,908	487	2,908	487	1,790	435
Whiting, Lines . . . . .	63	25	—	—	4,488	2,806	—	—	4,488	2,806	4,551	2,831	6,214	3,424
" Nets . . . . .	—	—	—	—	505	192	—	—	505	192	507	193	289	134
Conger Eels, Lines . . . . .	2	1	—	—	376	144	—	—	393	152	393	152	246	90
Catfish, Lines . . . . .	—	—	—	8	50	17	—	—	50	17	50	17	38	9
Turbot, " . . . . .	—	—	—	—	2	5	—	—	2	5	2	5	1	3
Halibut, " . . . . .	—	—	40	84	161	325	—	—	201	409	201	409	119	238





APPENDIX B.—No. II.—*continued*.—RETURN respecting Vessels arriving and Fish landed in the District of **Buckie** during the Year 1912, and showing the catch and value during the previous Year.

METHOD OF FISHING :—Lines, 9 Steam and 4,864 Sailing Vessels arriving; Nets, 606 Steam and 1,834 Sailing Vessels arriving.

Herrings, Nets,	19,485	7,190	21,260	5,542	40,745	12,732	—	—	40,745	12,732	43,158	10,352
Mackerel, " "	10	1	10	2	20	3	—	—	20	3	392	23
Cod, Lines	32	10	4,156	1,625	—	—	4,188	1,635	—	—	—	—
" Nets	1,116	250	16,579	6,414	17,695	6,664	—	—	23,989	8,914	13,349	5,758
Codling, Nets	—	—	2,106	615	2,106	615	—	—	—	—	—	—
Ling, Lines	89	52	26	13	—	—	115	65	115	65	146	57
Saïche (Coal Fish), Lines	49	9	15	4	—	—	64	13	64	13	40	12
Haddock, Medium,	—	—	12,849	8,579	—	—	12,849	8,579	13,175	8,674	12,033	7,054
" Small	—	—	326	95	—	—	326	95	—	—	—	—
Whittings,	—	—	37	11	—	—	37	11	37	11	34	12
Conger Eels,	14	7	—	—	—	—	14	7	14	7	14	6
Halibut,	61	104	—	8	—	—	69	112	69	112	42	76
Flounders,	—	—	129	116	—	—	129	116	129	116	—	—
Plaice,	—	—	24	24	—	—	24	24	24	24	—	60
Skates and Rays,	138	102	61	29	—	—	199	131	199	131	139	71
Totals	20,994	7,725	57,586	23,077	60,566	20,014	18,014	10,788	78,580	30,802	69,412	23,481
SHELL FISH.												
Lobsters	—	—	—	—	—	—	—	—	1,156	36	25	1
Crabs	—	—	—	—	—	—	—	—	500	3	—	—
Total Value	—	—	—	—	—	—	—	—	—	39	—	—
TOTAL VALUE OF ALL FISH	—	—	—	—	—	—	—	—	—	30,841	—	23,482



















APPENDIX B.—No. II.—*continued*.—RETURN respecting Vessels arriving and Fish landed in the District of **Stornoway** during the Year 1912, and showing the catch and value during the previous Year.

METHOD OF FISHING:—Trawls, 1 Vessel arriving; Lines, 458 Steam and 7,828 Sailing Vessels arriving; Nets, 3,726 Steam and 3,895 Sailing Vessels arriving.

Herrings, Nets . . . . .	163,372	61,673	121,187	46,507	284,559	108,180	108,180	284,559	108,180	158,618	43,145
Mackerel, " . . . . .	2,748	319	3,470	362	6,218	681	681	6,218	681	9,060	1,055
Cod, Lines . . . . .	4,154	1,273	4,320	1,106	—	—	—	8,474	2,379	11,431	4,488
" Nets, . . . . .	—	10	—	—	—	—	—	—	—	—	—
Ling, Lines . . . . .	6,903	2,552	15,358	4,756	—	—	—	22,261	7,308	23,489	9,074
" Nets . . . . .	—	—	—	—	—	—	—	—	—	—	—
Torsk (Tusk), Lines . . . . .	229	49	1,661	329	—	—	—	1,890	378	2,446	583
Saithe (Coal Fish), Lines . . . . .	2,301	351	10,533	1,364	—	—	—	12,834	1,715	18,032	2,842
Haddock, Large . . . . .	10	5	—	—	—	—	—	10	5	—	—
" Medium " . . . . .	—	—	9,611	3,656	—	—	—	9,611	3,656	10,525	3,921
Whittings, Lines . . . . .	—	—	378	101	—	—	—	378	101	380	92
Conger Eels, " . . . . .	1,858	582	3,609	1,452	—	—	—	5,467	2,034	7,902	3,698
Gurnards, " . . . . .	—	—	1,855	509	—	—	—	1,855	509	875	177
Catfish, " . . . . .	—	—	—	—	—	—	—	—	—	36	5
Monks (Anglers), Lines . . . . .	—	—	—	—	—	—	—	—	—	15	4
Hake, Lines . . . . .	47	40	13	9	—	—	—	60	49	86	69
Turbot, " . . . . .	—	—	25	13	—	—	—	25	13	46	26
" Nets . . . . .	—	—	—	—	—	—	—	—	—	—	—
Hallibut, Lines . . . . .	187	338	1,224	694	—	—	—	1,411	1,032	1,842	2,002
" Nets . . . . .	—	—	—	—	—	—	—	—	—	—	—
Lemon Soles, Nets . . . . .	—	—	1,976	654	—	—	—	1,976	654	11	14
Flounders, Lines . . . . .	—	—	—	—	—	—	—	—	—	1,751	598
Plaice, Medium, Lines . . . . .	—	—	—	—	—	—	—	—	—	66	45
Dabs, Lines . . . . .	—	—	—	—	—	—	—	—	—	14	6
Witches, Nets . . . . .	—	—	—	—	—	—	—	—	4	30	30
Megrim, Nets . . . . .	—	—	—	—	—	—	—	—	—	30	23
Skates and Rays, Lines . . . . .	2,463	593	4,965	600	—	—	—	7,428	1,193	10,202	1,693
" Nets . . . . .	—	—	—	—	—	—	—	—	—	1,195	—

[Continued.]





APPENDIX B.—No. II.—continued.—RETURN respecting Vessels arriving and Fish landed in the District of Barra during the Year 1912, and showing the catch and value during the previous Year.

METHOD OF FISHING.—Lines, 2 Steam and 2,313 Sailing Vessels arriving; Nets, 486 Steam and 2,720 Sailing Vessels arriving.													
	12,394	6,411	45,432	26,944	57,826	33,355	—	—	—	57,826	33,355	114,248	39,144
Herrings, Nets . . . . .	760	16	4,876	118	5,436	134	—	—	—	5,436	134	987	72
Mackerel, " . . . . .	47	12	2,575	614	—	—	—	2,622	—	2,622	—	1,714	437
Cod, Lines . . . . .	—	—	6,008	1,965	—	—	—	6,008	1,965	6,008	1,965	3,123	901
Ling, " (Tusk), Lines . . . . .	—	—	162	37	—	—	—	162	37	162	37	50	9
Torsk (Coal Fish), " . . . . .	214	21	2,794	299	—	—	—	3,008	320	5,178	373	2,470	293
Saithe (Coal Fish), " . . . . .	—	—	2,170	53	2,170	53	—	—	—	—	—	—	—
Nets . . . . .	—	—	34	11	—	—	—	34	11	34	11	20	6
Haddock, Lines . . . . .	—	—	12	3	—	—	—	12	3	12	3	—	—
Whittings, " . . . . .	—	—	826	356	—	—	—	826	356	826	356	763	351
Conger Eels, " Lines . . . . .	—	—	54	20	—	—	—	101	32	101	32	46	13
Hake, Lines . . . . .	47	12	—	—	—	—	—	—	—	—	—	1	4
Turbot, " . . . . .	—	—	—	—	—	—	—	—	—	—	—	89	107
Halibut, " . . . . .	—	—	258	302	—	—	—	258	302	258	302	921	208
Flounders, " . . . . .	—	—	1,311	328	—	—	—	1,311	328	1,311	328	57	30
Piace, " . . . . .	—	—	316	128	—	—	—	316	128	316	128	54	22
Dabs, " . . . . .	—	—	50	10	—	—	—	50	10	50	10	415	100
Skates and Rays, Lines . . . . .	—	—	859	171	—	—	—	859	171	859	171	—	—
Unclassified kinds, " . . . . .	—	—	—	—	—	—	—	—	—	—	—	3	1
Totals . . . . .	13,462	6,472	67,537	31,359	65,432	33,542	—	15,567	4,289	80,999	37,831	124,961	41,698
SHELL FISH.													
LOBSTERS . . . . .	—	—	—	—	—	—	—	—	—	—	—	93,483	4,403
Mussels . . . . .	—	—	—	—	—	—	—	—	—	105,451	4,852	64	10
Unclassified . . . . .	—	—	—	—	—	—	—	—	—	16	2	—	—
Total Value . . . . .	—	—	—	—	—	—	—	—	—	6,591	1,288	6,848	1,325
TOTAL VALUE OF ALL FISH	—	—	—	—	—	—	—	—	—	—	—	—	5,738
Fish used for Manure . . . . .	—	—	—	—	—	—	—	—	—	—	43,973	—	47,436
" " Bait . . . . .	—	—	—	—	—	—	—	—	—	7,246	158	—	—
" (included above)	—	—	—	—	—	—	—	—	—	2,242	755	931	306

APPENDIX B.—No. II.—*continued*.—RETURN respecting Vessels arriving and Fish landed in the District of Loch Broom during the Year 1912, and showing the catch and value during the previous Year.

Description of Fish.	Trawls, Steam.		Lines or Nets.				Total Nets.		Total Lines.		Grand Total 1912.		Grand Total 1911.		
	Quantity	Value.	Steam.	Sail and Motor.		Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.
				Quantity	Value.										
Herrings, Nets	Cwt.	£		Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
Mackerel, "	—	—	227	10,722	3,828	10,949	3,934	—	—	10,949	3,934	21,418	4,954	1,637	125
Cod and Codling, Lines	—	—	—	565	48	565	48	—	—	565	48	—	—	—	—
Netts	—	—	—	3,077	1,112	—	—	3,057	1,112	—	—	—	—	—	—
Ling, Lines	—	—	—	7,242	1,872	7,242	1,872	—	—	10,299	2,984	9,226	2,812	—	—
Saithe (Coal Fish), Lines	—	—	—	33	12	—	—	33	12	33	12	131	47	—	—
Netts	—	—	—	377	65	—	—	377	65	—	—	—	—	—	—
Haddock, Lines	—	—	—	1,063	169	1,063	169	—	—	1,440	234	2,108	385	—	—
Whittings, "	—	—	—	3,369	1,362	—	—	3,369	1,362	3,369	1,362	3,382	1,324	—	—
Conger Eels, "	—	—	—	301	123	—	—	301	123	301	123	286	115	—	—
Halibut, "	—	—	—	255	55	—	—	255	55	255	55	222	68	—	—
"	—	—	—	1	2	—	—	1	2	1	2	10	14	—	—
Flounders, "	—	—	—	26	15	—	—	26	15	26	15	13	8	—	—







APPENDIX B.—No. II.—*continued*.—RETURN respecting Vessels arriving and Fish landed in the District of Fort-William during the Year 1912, and showing the catch and value during the previous Year.

Herrings, Nets . . . . .	—	77,293	27,990	11,921	4,291	89,214	32,281	—	—	—	89,214	32,281	77,324	19,555
" Sparlings, " . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	8
" Mackerel, " . . . . .	23	340	70	309	80	649	150	—	—	—	672	156	542	73
" Cod, Lines . . . . .	—	6,586	2,083	1,641	642	—	—	8,227	2,725	—	8,967	3,030	7,118	2,487
" Nets . . . . .	334	—	—	406	162	406	162	—	—	—	—	—	—	—
" Ling, Lines . . . . .	—	4,765	1,981	456	196	—	—	5,221	2,177	—	5,384	2,223	3,943	1,384
" Nets . . . . .	163	—	—	—	—	—	—	—	—	—	—	—	—	—
" Torsk (Tusk), Lines . . . . .	—	184	25	25	3	—	—	209	28	—	209	28	106	16
" Saithe (Coal Fish), Lines . . . . .	—	1,324	140	703	128	—	—	2,027	268	—	2,416	347	2,022	337
" Nets . . . . .	208	—	—	181	47	181	47	—	—	—	—	—	—	—
" Haddocks, Medium, Lines . . . . .	—	48	32	1,066	772	—	—	1,114	804	—	2,865	1,451	4,481	2,462
" Nets . . . . .	1,751	—	—	—	—	—	—	—	—	—	—	—	—	—
" Whittings, Lines . . . . .	—	—	—	159	141	—	—	159	141	—	736	340	634	368
" Nets . . . . .	577	—	—	—	—	—	—	—	—	—	—	—	—	—
" Conger Eels, Lines . . . . .	—	19,739	5,298	2,277	674	—	—	22,016	5,972	—	22,291	6,021	17,661	4,909
" Nets . . . . .	275	—	—	—	—	—	—	—	—	—	—	—	—	—
" Gurnards, Lines . . . . .	—	—	—	4	2	—	—	—	—	—	144	28	182	42
" Nets . . . . .	140	—	—	—	—	—	—	—	—	—	—	—	—	—
" Catfish, Nets . . . . .	140	—	—	—	—	—	—	—	—	—	140	44	41	14
" Monks (Anglers), Nets . . . . .	34	—	—	—	—	—	—	—	—	—	34	6	4	1
" Hake, Lines . . . . .	—	293	375	8	10	—	—	301	385	—	1,070	605	249	184
" Nets . . . . .	769	—	—	—	—	—	—	—	—	—	—	—	—	—
" Turbot, Lines . . . . .	—	1	1	—	—	—	—	—	—	—	20	49	17	37
" Nets . . . . .	19	—	—	—	—	—	—	—	—	—	—	—	—	—
" Halibut, Lines . . . . .	—	234	456	8	11	—	—	242	467	—	243	469	216	403
" Nets . . . . .	1	—	—	—	—	—	—	—	—	—	—	—	—	—
" Lemon Soles, Nets . . . . .	57	—	—	—	—	—	—	—	—	—	57	77	182	249
" Flounders, Lines . . . . .	—	—	—	333	226	—	—	333	226	—	333	226	272	208
" Plaice, Lines . . . . .	—	10	13	12	15	—	—	22	28	—	388	471	561	725
" Nets . . . . .	366	—	—	—	—	—	—	—	—	—	—	—	—	—

[Continued.]



























## APPENDIX B.—No. II.—continued.

FISH LANDED.—Statement of the Total Quantity and Value of the different kinds of White and Shell Fish landed in Orkney and Shetland in the Year 1912.

KINDS OF FISH.	TRAWLS, STEAM.		LINES OR NETS.				TOTAL NETS.		TOTAL LINES.		GRAND TOTAL, 1912.		GRAND TOTAL, 1911.	
	Quantity	Value.	Steam.		Sail and Motor.		Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.
			Quantity	Value.	Quantity	Value.								
Herrings, Nets	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
Mackerel	-	-	1,631,658	641,335	303,211	105,831	1,934,869	747,166	-	-	1,934,869	747,166	1,774,146	562,975
Cod and Codling, Lines	-	-	5,944	520	1,822	146	7,766	666	-	-	7,766	666	6,828	952
Netts	-	-	2,944	847	20,235	7,080	-	-	23,179	7,927	40,204	12,827	47,354	14,753
Ling, Lines	-	4,799	-	-	400	101	400	101	-	-	-	-	-	-
Torsk (Tusk), Lines	-	-	3,115	886	2,521	753	-	-	5,636	1,639	5,636	1,639	11,755	3,266
Saithe (Coal Fish), Lines	-	-	855	133	1,179	201	-	-	2,034	334	2,034	334	3,269	545
Netts	-	-	10,896	1,302	13,526	1,469	-	-	24,422	2,771	25,186	2,886	26,093	2,176
Haddock, Lines	764	115	-	-	-	-	-	-	-	-	17,635	7,130	28,300	11,627
Netts	-	-	-	-	17,635	7,130	-	-	-	-	-	-	1,962	473
Whiting, Lines	429	109	-	-	1,567	448	-	-	1,567	448	-	-	7	1
Conger Eels, Lines	-	-	-	-	-	-	-	-	-	-	-	-	10	5
Catfish, Lines	-	-	-	-	-	-	-	-	-	-	-	-	20	1
Hake, "	-	-	3	1	1	-	4	2	-	-	4	2	1,403	2,140
Halibut, "	-	-	168	263	785	1,348	953	1,611	-	-	963	1,611	1,403	2,140
Lemon Soles, Lines	-	-	-	-	-	-	-	-	-	-	-	-	2	2
Netts	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Flounders, Lines	1	1	-	-	-	-	-	-	-	-	-	-	54	27
Plaice, Lines	-	-	-	-	26	13	-	-	26	13	26	13	32	17
Netts	-	-	-	-	43	24	-	-	43	24	44	25	32	17
Dabs, Lines	1	1	-	-	-	-	-	-	-	-	-	-	247	102
Netts	-	-	-	-	312	139	-	-	312	139	312	139	247	102

Skates and Rays, Lines Unclassified kinds, Nets	815	111	483	102	-	1,298	213	1,298	213	2,212	317
Totals for 1912 -	17,820	645,398	368,746	124,786	-	77,109	22,251	2,087,964	775,209	69,410	4,450
Totals for 1911 -	25,845	466,785	418,858	124,516	-	86,404	26,920	1,903,730	599,384	88,318	488
Increase in 1912 -	8,025	178,613	55,112	270	-	-	-	184,234	175,825	-	618
Decrease in 1912 -	3,058	-	-	-	-	9,295	4,669	-	-	-	-
<b>SHELL FISH.</b>											
Lobsters - - No.	-	-	-	-	-	-	-	68,345	4,407	69,410	4,450
Crabs - - "	-	-	-	-	-	-	-	94,940	533	88,318	488
Mussels - - Cwts.	-	-	-	-	-	-	-	380	19	120	6
Unclassified "	-	-	-	-	-	-	-	2,704	613	3,189	618
Total for 1912 -	-	-	-	-	-	-	-	-	-	-	5,562
Total for 1911 -	-	-	-	-	-	-	-	-	-	-	5,562
Increase in 1912 -	-	-	-	-	-	-	-	-	10	-	-

Grand Total Value of Fish and Shell Fish for 1912, £780,781  
Do. 1911, £604,946

Increase in 1912, £175,835

APPENDIX B.—No. II.—continued.

FISH LANDED.—Statement of the Total Quantity and Value of the different kinds of White and Shell Fish landed in the West Coast Districts of Scotland in the Year 1912.

KINDS OF FISH.	TRAWLS, STEAM.		LINES OR NETS.				TOTAL NETS.		TOTAL LINES.		GRAND TOTAL, 1912.		GRAND TOTAL, 1911.	
	Quantity	Value.	Steam.		Sail and Motor.		Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.
			Cwt.	£	Cwt.	£								
Herrings, Nets	-	-	259,415	98,262	454,238	173,231	713,673	271,483	-	-	713,673	271,483	653,854	176,122
Sparlings, "	-	-	-	-	18	79	18	79	-	-	18	79	26	98
Mackerel, "	23	6	3,848	405	23,580	3,595	27,428	4,000	-	-	27,451	4,006	21,176	3,965
Cod and Codling, Lines	-	-	12,517	3,982	22,010	8,910	11,076	3,472	12,892	34,527	45,977	16,530	43,992	17,710
" " Nets	374	166	-	-	11,076	3,472	11,076	3,472	-	-	45,977	16,530	43,992	17,710
Ling, Lines	-	-	13,072	5,007	22,367	7,141	-	-	12,148	35,439	35,637	12,205	33,079	12,238
" " Nets	196	56	-	-	2	1	2	1	-	-	35,637	12,205	33,079	12,238
Torsk (Tusk), Lines	-	-	434	78	1,850	370	-	-	448	2,284	2,284	448	2,660	618
Saithe (Coal Fish), Lines	-	-	3,859	514	17,220	2,404	-	-	2,918	21,079	29,743	3,865	32,684	5,233
" " Nets	241	38	-	-	8,423	909	8,423	909	-	-	29,743	3,865	32,684	5,233
Haddock, Lines	-	-	58	37	16,943	7,529	-	-	7,566	17,001	19,076	8,309	21,818	9,893
" " Nets	2,072	740	-	-	3	3	3	3	-	-	19,076	8,309	21,818	9,893
Whiting's, Lines	-	-	-	-	3,035	2,165	-	-	2,165	3,035	3,644	2,378	4,438	2,984
" " Nets	605	209	-	-	4	4	4	4	-	-	3,644	2,378	4,438	2,984
Conger Eels, Lines	-	-	24,827	6,960	8,656	3,215	-	-	10,175	33,483	33,786	10,237	29,521	10,187
" " Nets	295	58	-	-	8	4	8	4	-	-	33,786	10,237	29,521	10,187
Gurnards, Lines	-	-	-	-	1,926	526	-	-	526	1,926	2,080	554	1,079	222
" " Nets	154	28	-	-	-	-	-	-	-	-	2,080	554	1,079	222
Catfish, "	164	53	-	-	-	-	-	-	-	-	164	53	77	19
Monks (Anglers), Nets	42	7	-	-	-	-	-	-	-	-	42	7	19	5
Hake, Lines	-	-	419	446	86	45	-	-	491	505	1,639	882	556	354
" " Nets	841	236	-	-	293	155	293	155	-	-	1,639	882	556	354
Turbot, Lines	-	-	1	1	38	44	-	-	45	39	125	279	165	306
" " Nets	23	55	-	-	63	179	63	179	-	-	125	279	165	306
Halibut, Lines	-	-	1,241	2,335	1,633	1,116	-	-	3,451	2,774	2,777	3,454	2,778	3,899
" " Nets	3	3	-	-	-	-	-	-	-	-	2,777	3,454	2,778	3,899
Lennon Soles, Lines	-	-	-	-	85	132	-	-	132	85	148	220	274	365
" " Nets	63	88	-	-	-	-	-	-	-	-	148	220	274	365





APPENDIX B.—No. II.—*continued.*  
 FISH LANDED.—Statement of the Total Quantity and Value of the different kinds of White and Shell Fish landed in Scotland  
 by **Foreign Fishing Vessels** in 1912.

Description of Fish.	Trawls, Steam.		Lines.				Total Lines.		Grand Total 1912.		Grand Total 1911.	
			Steam.		Sailing.							
	Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity	Value.
	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£	Cwt.	£
Herrings, Nets	54	22	—	—	—	—	—	—	—	—	—	—
Mackerel, "	13	6	—	—	—	—	—	—	—	—	—	—
Cod and Codling, Limes	—	—	—	—	—	—	—	—	—	—	—	—
" " " "	—	—	—	—	—	—	—	—	—	—	—	—
Ling, Nets	279,018	72,039	14,448	5,418	21,760	9,764	36,208	15,182	315,226	87,221	215,567	50,476
Torsk (Tusk), Nets	10,993	2,659	—	—	—	—	—	—	10,993	2,659	14,210	2,965
Saithe (Coal Fish), Nets	10	1	—	—	—	—	—	—	10	1	98	28
Haddock, Nets	61,548	15,778	—	—	—	—	—	—	61,548	15,778	28,736	5,131
Whittings, "	62,376	22,207	—	—	—	—	—	—	62,376	22,207	57,327	15,734
Conger Belts, "	924	223	—	—	—	—	—	—	924	223	1,213	336
Gurnards, "	3	—	—	—	—	—	—	—	3	—	20	4
Catfish, "	41	3	—	—	—	—	—	—	41	3	63	3
Monks (Anglers), Nets	4,031	505	—	—	—	—	—	—	4,031	505	3,222	284
Hake, Nets	309	53	—	—	—	—	—	—	309	53	371	52
Squids, "	35	23	—	—	—	—	—	—	35	23	186	46
Turbot, "	—	—	—	—	—	—	—	—	—	—	1	—
Halibut, "	7	17	—	—	—	—	—	—	7	17	24	64
Lemon Soles, Nets	2,208	2,751	—	—	—	—	—	—	2,208	2,751	2,227	2,572
Plaice, Nets	972	1,167	—	—	—	—	—	—	972	1,167	682	752
	2,521	3,125	—	—	—	—	—	—	2,521	3,125	2,404	1,696



APPENDIX B.—No. II.—continued.

FISH LANDED.—Statement of the Total Quantity and Value of the different kinds of White and Shell Fish landed in Scotland in the Year 1912.

KINDS OF FISH.	TRAWLS, STREAM.		LINES OR NETS.				TOTAL NETS.		TOTAL LINES.		GRAND TOTAL, 1912.		GRAND TOTAL 1911.	
	Quantity	Value.	Steam.		Sail and Motor.		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Cwt.	£	Cwt.	£								
Herrings, Nets	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sprats, "	5,714	2,698	3,137	721	1,209	481	2,057	865	698	354	5,195	586	5,201	300
Sparlings, "	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mackerel, Lines	-	-	-	-	-	-	-	-	-	-	-	-	-	-
" Nets	4,350	2,052	12,762	-	1,486	-	30,855	43	5,195	9	43	48,010	47,999	9,819
Cod and Codling, Lines	-	-	91,200	-	35,763	-	187,905	-	73,460	-	279,105	109,223	1,235,043	448,941
" Nets	867,711	365,139	10,006	-	3,781	-	78,221	-	28,069	-	119,018	40,736	190,964	246,889
Ling, Lines	-	-	91,903	-	31,886	-	27,115	-	8,850	-	8	3	14,883	59,764
" Nets	71,988	19,025	3	-	1	-	5	-	2	-	8	4,675	16,503	5,112
Torsk (Tusk), Lines	-	-	11,854	-	4,099	-	3,089	-	576	-	66,690	9,387	286,882	216,300
" Nets	1,610	437	26,938	-	3,885	-	39,702	-	5,502	-	142,092	83,300	933,226	575,957
Saithe (Coal Fish), Lines	-	-	15	-	3	-	8,498	-	919	-	84	84	173,992	70,151
" Nets	211,679	33,627	403	-	187	-	141,689	-	83,113	-	35,775	11,047	36,863	11,554
Haddock, Lines	-	-	-	-	-	-	158	-	84	-	19,206	8,843	173,992	70,151
" Nets	810,976	492,573	-	-	-	-	19,206	-	8,843	-	4	4	173,992	70,151
Whittings, Lines	-	-	-	-	-	-	4	-	4	-	35,775	11,047	36,863	11,554
" Nets	154,782	61,304	26,356	-	7,521	-	9,419	-	3,526	-	96	227	36,863	11,554
Conger Eels, Lines	-	-	-	-	-	-	96	-	227	-	2,001	545	2,001	545
" Nets	992	280	-	-	-	-	2,001	-	545	-	2,001	545	2,001	545
Gurnards, Lines	-	-	-	-	-	-	-	-	-	-	-	-	-	-
" Nets	6,317	783	-	-	-	-	-	-	-	-	-	-	-	-
Catfish, Lines	-	-	-	-	-	-	-	-	-	-	-	-	-	-
" Nets	29,469	7,587	299	-	39	-	583	-	232	-	882	271	30,351	7,858
Monks (Anglers), Nets	22,579	5,466	835	-	772	-	87	-	46	-	922	818	20,176	5,466
Hake, Lines	-	-	-	-	-	-	-	-	-	-	-	-	-	-
" Nets	18,961	11,179	-	-	-	-	293	-	155	-	155	57	20,176	12,152
Squids, "	157	57	-	-	-	-	-	-	-	-	-	-	157	57
	-	-	-	-	-	-	-	-	-	-	-	-	234	73





## APPENDIX C.

FISH USED IN A FRESH STATE.—Table showing the Estimated Quantity of each species of Fish consumed fresh in Scotland, or dispatched from Scotland in a fresh state, in the year 1912.

Description of Fish.	Quantity. Cwts.
Herrings, . . . . .	334,232*
Sprats, . . . . .	2,024
Sparklings, . . . . .	400
Mackerel . . . . .	36,835
Cod and Codlings, . . . . .	411,712
Ling, . . . . .	72,340
Torsk (Tusk), . . . . .	5,771
Saithe, . . . . .	95,405
Haddocks, . . . . .	427,772
Whitings, . . . . .	74,767
Conger Eels, . . . . .	36,863
Gurnards, . . . . .	8,318
Catfish, . . . . .	13,881
Monks, . . . . .	11,329
Hake, . . . . .	20,176
Squids, . . . . .	157
Turbot, . . . . .	4,038
Halibut, . . . . .	49,696
Lemon Soles, . . . . .	40,818
Flounders, . . . . .	9,729
Plaice, . . . . .	50,238
Brill, . . . . .	258
Dabs, . . . . .	10,601
Witches, . . . . .	18,819
Megrims, . . . . .	17,595
Skates and Rays , . . . .	144,010
Unclassified kinds, . . . . .	10,213
Total, . . . . .	1,907,997

\* Exclusive of herrings exported sprinkled or iced.

APPENDIX D.—No. I.

FISH CURED.—RETURN showing the Quantity of each Species of Fish Cured, and Mode of Cure, in the year 1912.

No.	DISTRICTS.	HERRINGS.					Total Number of Barrels.
		Barrels Guttled.	Barrels Un-guttled.	Barrels Kip-pered.	Barrels of Bloaters or Reds.	Barrels Tinned.	
<b>EAST COAST.</b>							
1	Eyemouth, . . . . .	30,932	773	43,440	3,168	4,092	82,405
2	Leith, . . . . .	500	...	5,410	1,248	...	7,153
3	Anstruther, . . . . .	6,645	...	463	732	...	7,840
4	Montrose, . . . . .	8,093	...	417	186	...	8,696
5	Stonehaven, . . . . .	640	...	1,078	180	...	1,898
6	Aberdeen, . . . . .	27,020	...	13,031	3,499	37,311	80,861
7	Peterhead, . . . . .	214,823	...	21,754	5	1,270	237,852
8	Fraserburgh, . . . . .	214,800	...	14,049	...	10,897	239,746
9	Banf, . . . . .	6,371	...	1,809	...	...	8,180
10	Buckie, . . . . .	13,324	...	159	...	...	13,483
11	Findhorn, . . . . .	4,455	29	...	...	...	4,484
12	Cromarty, . . . . .	...	...	...	...	...	...
13	Helmsdale, . . . . .	13	...	...	...	...	13
14	Lybster, . . . . .	250	...	...	...	...	250
15	Wick, . . . . .	205,987	80	4,135	21	...	210,223
East Coast Totals carried } down, . . . . . }		733,853	882	105,745	9,039	53,570	903,089
<b>Orkney and Shetland.</b>							
16	Orkney, . . . . .	187,205	...	138	...	...	187,343
17	Shetland, . . . . .	479,982	...	8,144	389	...	488,515
Orkney and Shetland Totals } carried down, . . . . . }		667,187	...	8,282	389	...	675,858
<b>WEST COAST.</b>							
18	Stornoway, . . . . .	81,500	744	15,222	...	...	97,466
19	Barra, . . . . .	20,490	...	...	...	...	20,490
20	Loch Broom, . . . . .	3,595	...	...	...	...	3,595
21	Loch Carron and Skye, . . . . .	8,880	...	80	...	...	8,960
22	Fort-William, . . . . .	6,061	...	642	...	...	6,703
23	Campbeltown, . . . . .	3,010	...	266	...	...	3,276
24	Inveraray, . . . . .	216	...	2	...	...	218
25	Rothesay, . . . . .	228	16	502	20	...	766
26	Greenock, . . . . .	14,463	...	17,082	54	...	31,599
27	Ballantrae, . . . . .	...	...	125	...	...	125
West Coast Totals carried } down, . . . . . }		133,443	760	33,921	74	...	173,198
<b>Totals brought down.</b>							
East Coast, . . . . .		733,853	882	105,745	9,039	53,570	903,089
Orkney and Shetland, . . . . .		667,187	...	8,282	389	...	675,858
West Coast, . . . . .		133,443	760	33,921	74	...	173,198
Grand Totals for 1912, . . . . .		1,539,483	1,642	147,948	9,502	53,570	1,752,145
Grand Totals for 1911, . . . . .		1,510,304	6,485	172,043	8,876	51,916	1,749,624
Increase in 1912, . . . . .		29,179	...	...	626	1,654	2,521
Decrease in 1912, . . . . .		...	4,843	24,095	...	...	...

NOTE 1.—Of the quantity cured gutted, 1,732 barrels were cured at sea, 7 vessels of 431 tons, and employing 57 men, having been fitted out for that purpose.  
NOTE 2.—The returns of herrings cured are this year given for the first time as “bungpacked,” i.e., as finally ready for export. In previous reports they have been given as “seasticks,” i.e., before the herrings have “pined” or settled down in the barrels. The corresponding equivalents in the “seastick” state will be found under Appendix D.—No. II.

APPENDIX D. No. I.—*continued.*

FISH CURED.—RETURN showing the Quantity of each Species of Fish Cured, and the Mode of Cure, in the year 1912.

OTHER KINDS.						
Description of Fish.	Dried. Cwts.	Smoked. Cwts.	Pickled. Cwts.	Tinned Cwts.	Total 1912. Cwts.	Total 1911. Cwts.
Cod . . .	180,859	138,107	4,540	..	323,506	238,483
Ling . . .	37,972	2,100	507	..	40,579	49,013
Tusk . . .	4,166	1,200	..	..	5,366	6,470
Saithe . . .	35,991	40,600	..	..	76,591	54,238
Haddocks . . .	8,408	225,127	..	..	233,535	260,185
Whittings . . .	..	44,100	..	..	44,100	..
Catfish . . .	..	5,490	..	..	5,490	..
Monks . . .	..	3,750	..	..	3,750	..
Witches . . .	..	50	..	..	50	..
Megrims . . .	..	200	..	..	200	..
Mackerel . . .	..	..	8,700	735	9,435	6,845
Sprats . . .	..	..	2,962	..	2,962	7,890
Unclassified . . .	..	2,160	..	..	2,160	..
Total . . .	267,396	462,884	16,709	735	747,724	623,124

NOTE.—The quantities given above represent the weight after cure.

APPENDIX D.—No. II.

HERRINGS CURED.—STATEMENT showing the Number of Barrels of Herrings Cured Gutted and Ungutted, on the East and West Coasts of Scotland, for the Hundred and two years ended 31st December, 1912.

Year ended	* East Coast.			West Coast.			GRAND TOTAL.
	Gutted.	Ungutted, Kipped, &c.	Total.	Gutted.	Ungutted, Kipped, &c.	Total.	
6th April 1811	2,008½	6,630	8,638½	62,186	19,110	81,296	89,934½
" 1812	4,325½	10,332	14,657½	65,922	24,518	90,440	105,097½
" 1813	9,179	20,950½	30,129½	76,561¾	31,025½	107,587¼	137,716¾
" 1814	9,503	46,800½	56,303½	37,969	5,773	43,742	100,045½
" 1815	24,314	36,827	61,141	76,021¼	7,756	83,777¼	144,918¼
" 1816	55,411½	18,416½	73,828	73,292½	2,578¼	75,870¾	149,698¾
" 1817	90,710½	26,252½	116,963	60,581½	3,233½	63,815	180,778
" 1818	118,594¾	8,287¼	126,882	76,765	4,491½	81,256½	208,138½
" 1819	221,959½	22,158	244,117½	75,197½	6,441	81,638½	325,756
" 1820	267,556½	27,391½	294,948	72,629½	4,512	77,141½	372,089½
" 1821	318,473½	23,909½	342,382¾	88,626½	2,613	91,239½	433,622¼
" 1822	229,070	12,808¾	241,878¾	56,342½	1,328	57,670½	299,549¼
" 1823	183,687	15,256½	198,943½	34,211	2,45½	34,456½	233,399
" 1824	272,340½	32,402	304,742½	52,792	802¼	53,594¼	358,336¾
" 1825	227,667	28,849¾	256,516¾	64,623	593	65,216	321,732¾
" 1826	289,101	31,703¼	320,804¼	42,602	121	42,723	363,527¼
" 1827	211,042¾	22,241½	233,284¼	43,231	117	43,348	276,632¼
" 1828	287,906½	37,882½	325,789	45,632	2,039½	47,671½	373,460½
" 1829	249,365½	41,047¼	290,412¾	47,525	945	48,470	338,882¾
" 1830	216,427½	35,226	251,653½	59,494	639	60,133	311,786½
" 1831	315,479	51,609¾	367,088¾	46,631	855	47,486	414,574¾
" 1832	259,197½	36,183¾	295,381	49,216¼	3,167	52,383¼	347,764¼
" 1833	267,928½	45,564¾	313,493¼	77,144	573	77,717	391,210¼

\* Including Orkney and Shetland.



APPENDIX D.—No. II.—continued.

Year ended	* East Coast.			West Coast.			GRAND TOTAL.
	Gutted.	Ungutted, Kipperd, &c.	Total.	Gutted.	Ungutted, Kipperd, &c.	Total.	
5th April 1834	315,159	56,374 <sup>3</sup> / <sub>4</sub>	371,533 <sup>3</sup> / <sub>4</sub>	64,427 <sup>1</sup> / <sub>2</sub>	137	64,564 <sup>1</sup> / <sub>2</sub>	436,098 <sup>1</sup> / <sub>4</sub>
" 1835	166,539 <sup>1</sup> / <sub>2</sub>	33,339 <sup>3</sup> / <sub>4</sub>	199,879	45,091 <sup>1</sup> / <sub>2</sub>	633	45,724 <sup>1</sup> / <sub>2</sub>	245,603 <sup>3</sup> / <sub>4</sub>
" 1836	343,693 <sup>1</sup> / <sub>2</sub>	68,891 <sup>3</sup> / <sub>4</sub>	412,585 <sup>1</sup> / <sub>4</sub>	46,554 <sup>1</sup> / <sub>2</sub>	479	47,033 <sup>1</sup> / <sub>2</sub>	459,618 <sup>3</sup> / <sub>4</sub>
" 1837	229,371	71,449 <sup>1</sup> / <sub>4</sub>	300,820 <sup>1</sup> / <sub>4</sub>	54,859	1,892 <sup>1</sup> / <sub>2</sub>	56,751 <sup>3</sup> / <sub>4</sub>	357,571 <sup>3</sup> / <sub>4</sub>
" 1838	307,625	82,634 <sup>3</sup> / <sub>4</sub>	390,259 <sup>3</sup> / <sub>4</sub>	68,990 <sup>1</sup> / <sub>2</sub>	2,374 <sup>1</sup> / <sub>2</sub>	71,365	461,624 <sup>3</sup> / <sub>4</sub>
" 1839	308,581	119,489 <sup>3</sup> / <sub>4</sub>	428,070 <sup>3</sup> / <sub>4</sub>	66,046 <sup>1</sup> / <sub>2</sub>	1,672 <sup>1</sup> / <sub>2</sub>	67,719	495,789 <sup>3</sup> / <sub>4</sub>
" 1840	345,074 <sup>1</sup> / <sub>2</sub>	103,160	448,234 <sup>1</sup> / <sub>2</sub>	54,208 <sup>1</sup> / <sub>2</sub>	343	54,551 <sup>1</sup> / <sub>2</sub>	502,786
" 1841	334,539	78,225 <sup>1</sup> / <sub>4</sub>	412,764 <sup>1</sup> / <sub>4</sub>	87,562 <sup>1</sup> / <sub>2</sub>	3,402 <sup>1</sup> / <sub>2</sub>	90,965	503,729 <sup>1</sup> / <sub>4</sub>
" 1842	404,502 <sup>1</sup> / <sub>2</sub>	116,675 <sup>1</sup> / <sub>4</sub>	521,178	78,755 <sup>1</sup> / <sub>2</sub>	2,183 <sup>1</sup> / <sub>2</sub>	80,939	602,117
" 1843	376,374	118,755 <sup>3</sup> / <sub>4</sub>	495,129 <sup>3</sup> / <sub>4</sub>	61,568 <sup>3</sup> / <sub>4</sub>	1,627	63,195 <sup>3</sup> / <sub>4</sub>	558,325 <sup>1</sup> / <sub>4</sub>
" 1844	384,729	105,927 <sup>1</sup> / <sub>2</sub>	490,656 <sup>1</sup> / <sub>2</sub>	81,643	4,776	86,419	577,075 <sup>1</sup> / <sub>2</sub>
" 5th January 1845	305,461 <sup>1</sup> / <sub>2</sub>	72,649 <sup>1</sup> / <sub>4</sub>	378,110 <sup>1</sup> / <sub>2</sub>	80,836	901	81,737	459,847 <sup>3</sup> / <sub>4</sub>
" 1846	343,927	82,607 <sup>3</sup> / <sub>4</sub>	426,534 <sup>3</sup> / <sub>4</sub>	64,056	3,753 <sup>1</sup> / <sub>2</sub>	67,809 <sup>1</sup> / <sub>2</sub>	494,344
" 1847	343,009 <sup>3</sup> / <sub>4</sub>	137,296 <sup>3</sup> / <sub>4</sub>	480,306 <sup>3</sup> / <sub>4</sub>	67,613	11,263	78,876	559,182 <sup>2</sup> / <sub>4</sub>
" 1848	323,471 <sup>1</sup> / <sub>2</sub>	135,479	458,950 <sup>3</sup> / <sub>4</sub>	46,636 <sup>1</sup> / <sub>2</sub>	9,570	56,206 <sup>1</sup> / <sub>2</sub>	515,157
" 1849	337,450	155,654 <sup>1</sup> / <sub>4</sub>	493,104 <sup>1</sup> / <sub>4</sub>	52,473	6,981	59,454	552,558 <sup>1</sup> / <sub>4</sub>
" 1850	427,138	152,530	579,668	77,171 <sup>1</sup> / <sub>2</sub>	25,029 <sup>3</sup> / <sub>4</sub>	102,201 <sup>1</sup> / <sub>4</sub>	681,869 <sup>1</sup> / <sub>4</sub>
" 1851	320,493	129,532 <sup>3</sup> / <sub>4</sub>	450,025 <sup>3</sup> / <sub>4</sub>	57,694	21,134	78,828	528,853 <sup>3</sup> / <sub>4</sub>
" 1852	348,573	109,933	458,506	68,660 <sup>1</sup> / <sub>4</sub>	36,220 <sup>3</sup> / <sub>4</sub>	104,881	563,387
" 31st December 1852	331,055 <sup>1</sup> / <sub>2</sub>	89,355	420,410 <sup>1</sup> / <sub>2</sub>	44,623 <sup>1</sup> / <sub>2</sub>	13,903	58,526 <sup>1</sup> / <sub>2</sub>	478,937
" 1853	482,017	165,459 <sup>1</sup> / <sub>4</sub>	647,476 <sup>1</sup> / <sub>4</sub>	78,350	28,431 <sup>1</sup> / <sub>2</sub>	106,781 <sup>1</sup> / <sub>2</sub>	754,257 <sup>3</sup> / <sub>4</sub>
" 1854	410,332	132,977 <sup>1</sup> / <sub>2</sub>	543,309 <sup>1</sup> / <sub>2</sub>	48,247 <sup>1</sup> / <sub>2</sub>	31,207 <sup>1</sup> / <sub>2</sub>	79,455	622,764 <sup>3</sup> / <sub>4</sub>
" 1855	505,481 <sup>3</sup> / <sub>4</sub>	136,687 <sup>3</sup> / <sub>4</sub>	642,169 <sup>3</sup> / <sub>4</sub>	77,175 <sup>3</sup> / <sub>4</sub>	32,631	109,806 <sup>1</sup> / <sub>2</sub>	751,975 <sup>3</sup> / <sub>4</sub>
" 1856	396,650	92,400 <sup>1</sup> / <sub>2</sub>	489,050 <sup>1</sup> / <sub>2</sub>	69,755 <sup>1</sup> / <sub>2</sub>	32,492 <sup>1</sup> / <sub>2</sub>	102,248	591,298 <sup>1</sup> / <sub>2</sub>
" 1857	390,775	59,712 <sup>1</sup> / <sub>2</sub>	450,487 <sup>1</sup> / <sub>2</sub>	74,447 <sup>1</sup> / <sub>2</sub>	25,763 <sup>1</sup> / <sub>2</sub>	100,211	550,698 <sup>1</sup> / <sub>2</sub>
" 1858	410,524 <sup>3</sup> / <sub>4</sub>	111,440 <sup>3</sup> / <sub>4</sub>	521,965 <sup>1</sup> / <sub>2</sub>	59,868 <sup>3</sup> / <sub>4</sub>	23,350	83,218 <sup>1</sup> / <sub>2</sub>	605,184

\* Including Orkney and Shetland.

APPENDIX D.—No. II.—continued.

Year ended	* East Coast.			West Coast.			GRAND TOTAL.
	Gutted.	Ungutted, Kipped, &c.	Total.	Gutted.	Ungutted, Kipped, &c.	Total.	
31st December 1859	308,518 <sup>1</sup> / <sub>4</sub>	55,584	364,102 <sup>1</sup> / <sub>4</sub>	72,541	20,487	93,028	457,130 <sup>1</sup> / <sub>4</sub>
" 1860	424,201 <sup>1</sup> / <sub>2</sub>	103,086 <sup>1</sup> / <sub>4</sub>	527,287 <sup>3</sup> / <sub>4</sub>	71,894	37,891 <sup>1</sup> / <sub>2</sub>	109,785 <sup>1</sup> / <sub>2</sub>	637,073 <sup>1</sup> / <sub>4</sub>
" 1861	447,931 <sup>1</sup> / <sub>2</sub>	97,207	545,138 <sup>1</sup> / <sub>2</sub>	71,241 <sup>1</sup> / <sub>2</sub>	34,336 <sup>1</sup> / <sub>2</sub>	105,578	650,716 <sup>1</sup> / <sub>2</sub>
" 1862	536,602 <sup>1</sup> / <sub>2</sub>	88,911	625,513 <sup>1</sup> / <sub>2</sub>	119,251 <sup>1</sup> / <sub>2</sub>	52,685	171,942 <sup>1</sup> / <sub>2</sub>	797,456
" 1863	445,596 <sup>1</sup> / <sub>2</sub>	75,511 <sup>3</sup> / <sub>4</sub>	521,108 <sup>1</sup> / <sub>2</sub>	61,396 <sup>1</sup> / <sub>2</sub>	26,810	88,206 <sup>1</sup> / <sub>2</sub>	609,314 <sup>3</sup> / <sub>4</sub>
" 1864	378,752	88,107 <sup>1</sup> / <sub>4</sub>	466,859 <sup>3</sup> / <sub>4</sub>	99,731 <sup>3</sup> / <sub>4</sub>	42,889	142,626 <sup>1</sup> / <sub>2</sub>	609,486 <sup>1</sup> / <sub>4</sub>
" 1865	374,424	73,814 <sup>1</sup> / <sub>2</sub>	448,238 <sup>1</sup> / <sub>2</sub>	95,920 <sup>1</sup> / <sub>2</sub>	57,207	153,127 <sup>1</sup> / <sub>2</sub>	601,366
" 1866	398,358	72,420 <sup>1</sup> / <sub>4</sub>	470,778 <sup>1</sup> / <sub>4</sub>	99,396 <sup>3</sup> / <sub>4</sub>	74,431	173,827 <sup>1</sup> / <sub>2</sub>	644,605 <sup>3</sup> / <sub>4</sub>
" 1867	492,172 <sup>1</sup> / <sub>4</sub>	81,978 <sup>1</sup> / <sub>2</sub>	574,150 <sup>3</sup> / <sub>4</sub>	139,547 <sup>1</sup> / <sub>4</sub>	90,392	229,939 <sup>1</sup> / <sub>4</sub>	804,090
" 1868	363,922 <sup>1</sup> / <sub>2</sub>	62,906	426,828 <sup>1</sup> / <sub>2</sub>	81,546	129,886 <sup>1</sup> / <sub>4</sub>	211,432 <sup>1</sup> / <sub>2</sub>	638,260 <sup>3</sup> / <sub>4</sub>
" 1869	395,500 <sup>1</sup> / <sub>2</sub>	61,809 <sup>3</sup> / <sub>4</sub>	457,310 <sup>1</sup> / <sub>4</sub>	98,330 <sup>1</sup> / <sub>2</sub>	124,502 <sup>1</sup> / <sub>4</sub>	217,832 <sup>1</sup> / <sub>4</sub>	675,143
" 1870	508,805 <sup>1</sup> / <sub>2</sub>	98,318	607,123 <sup>1</sup> / <sub>2</sub>	148,254	77,783	226,037	833,160 <sup>1</sup> / <sub>2</sub>
" 1871	585,172	94,178	679,350	83,317 <sup>1</sup> / <sub>2</sub>	62,808 <sup>1</sup> / <sub>4</sub>	146,125 <sup>3</sup> / <sub>4</sub>	825,475 <sup>3</sup> / <sub>4</sub>
" 1872	623,443 <sup>1</sup> / <sub>2</sub>	62,341	685,784 <sup>1</sup> / <sub>2</sub>	48,260	39,815	88,075	773,859 <sup>1</sup> / <sub>2</sub>
" 1873	710,376 <sup>1</sup> / <sub>2</sub>	96,983 <sup>1</sup> / <sub>2</sub>	807,360	86,525 <sup>1</sup> / <sub>2</sub>	45,348	131,873 <sup>1</sup> / <sub>2</sub>	939,233 <sup>1</sup> / <sub>2</sub>
" 1874	789,345 <sup>1</sup> / <sub>2</sub>	77,489 <sup>3</sup> / <sub>4</sub>	866,835 <sup>1</sup> / <sub>2</sub>	97,657	36,068 <sup>3</sup> / <sub>4</sub>	133,725 <sup>3</sup> / <sub>4</sub>	1,000,561
" 1875	774,293 <sup>1</sup> / <sub>2</sub>	67,729	842,022 <sup>1</sup> / <sub>2</sub>	60,529	40,428 <sup>1</sup> / <sub>2</sub>	100,957 <sup>1</sup> / <sub>2</sub>	942,980
" 1876	454,164	59,230	513,394	32,074 <sup>1</sup> / <sub>2</sub>	52,729	84,803 <sup>1</sup> / <sub>2</sub>	598,197 <sup>1</sup> / <sub>2</sub>
" 1877	618,116 <sup>3</sup> / <sub>4</sub>	65,529 <sup>1</sup> / <sub>4</sub>	683,646	98,754 <sup>3</sup> / <sub>4</sub>	65,318 <sup>1</sup> / <sub>2</sub>	164,072 <sup>3</sup> / <sub>4</sub>	847,718
" 1878	702,433 <sup>1</sup> / <sub>2</sub>	70,927 <sup>1</sup> / <sub>2</sub>	773,361	69,122 <sup>1</sup> / <sub>2</sub>	63,284 <sup>1</sup> / <sub>2</sub>	132,407	905,768
" 1879	563,754	62,833 <sup>1</sup> / <sub>2</sub>	626,587 <sup>1</sup> / <sub>2</sub>	92,237	122,971 <sup>1</sup> / <sub>2</sub>	215,208 <sup>1</sup> / <sub>2</sub>	841,796
" 1880	1,096,953 <sup>1</sup> / <sub>2</sub>	104,151 <sup>1</sup> / <sub>2</sub>	1,201,105	127,245	145,290 <sup>1</sup> / <sub>4</sub>	272,495 <sup>1</sup> / <sub>4</sub>	1,473,600 <sup>1</sup> / <sub>4</sub>
" 1881	830,751 <sup>1</sup> / <sub>2</sub>	73,602 <sup>1</sup> / <sub>4</sub>	904,353 <sup>3</sup> / <sub>4</sub>	84,346 <sup>1</sup> / <sub>2</sub>	122,455	206,801 <sup>1</sup> / <sub>2</sub>	1,111,155 <sup>1</sup> / <sub>4</sub>
" 1882	879,243 <sup>1</sup> / <sub>2</sub>	98,983	978,226 <sup>1</sup> / <sub>2</sub>	101,512	203,235	304,747	1,282,973 <sup>1</sup> / <sub>2</sub>
" 1883	960,428 <sup>1</sup> / <sub>2</sub>	87,477 <sup>1</sup> / <sub>4</sub>	1,047,905 <sup>3</sup> / <sub>4</sub>	72,658 <sup>1</sup> / <sub>2</sub>	148,848 <sup>1</sup> / <sub>4</sub>	221,506 <sup>3</sup> / <sub>4</sub>	1,269,412 <sup>1</sup> / <sub>2</sub>
" 1884	1,323,989 <sup>1</sup> / <sub>2</sub>	132,061 <sup>1</sup> / <sub>4</sub>	1,456,050 <sup>3</sup> / <sub>4</sub>	128,223 <sup>1</sup> / <sub>2</sub>	112,803	241,026 <sup>1</sup> / <sub>2</sub>	1,697,077 <sup>1</sup> / <sub>4</sub>

\* Including Orkney and Shetland.

## APPENDIX D.—No. II.—continued.

Year ended	* East Coast.			West Coast.			GRAND TOTAL.
	Gutted.	Ungutted, &c. Kippercd, &c.	Total.	Gutted.	Ungutted, &c. Kippercd, &c.	Total.	
31st December 1885	1,244,259	74,723½	1,318,982½	108,190	145,779¾	253,969¾	1,572,952¼
" 1886	1,017,152	125,287¾	1,142,439¾	76,211	93,572½	169,783½	1,312,223¼
" 1887	962,116	127,588	1,089,704	101,937¾	111,782½	213,720¼	1,303,424¼
" 1888	790,458	82,155¼	872,613¼	116,542	129,717	246,259	1,118,872¼
" 1889	1,071,686	112,171	1,183,857	105,417	108,233	213,650	1,397,507
" 1890	1,042,089	81,218½	1,123,307½	142,340½	38,955	181,295½	1,304,603
" 1891	797,219	61,427	858,646	208,024	59,402	267,426	1,126,072
" 1892	1,012,452	82,267	1,094,719	125,299	37,924	163,223	1,257,942
" 1893	1,177,365	110,236	1,287,601	90,977	30,960¼	121,937¼	1,409,538¼
" 1894	1,312,926	98,783	1,411,709	91,489	14,879	106,368	1,518,077
" 1895	1,314,225	79,695	1,393,920	114,902	19,312	134,214	1,528,134
" 1896	1,232,549	101,098	1,333,647	132,234	26,035	158,269	1,491,916
" 1897	732,454	72,457	804,911	143,319	41,212	184,531	989,442
" 1898	1,500,533	92,883½	1,593,416½	174,743	37,188	211,931	1,805,347
" 1899	912,841	71,512	984,353	154,768	36,534	191,302	1,175,655
" 1900	968,077	98,673	1,066,750	156,522	32,333	188,855	1,255,605
" 1901	1,334,010	118,173	1,452,183	109,056	44,646	153,702	1,605,885
" 1902	1,507,138	125,933	1,633,071	123,437	46,651	170,088	1,803,159
" 1903	1,331,664	138,949	1,470,613	105,654	42,543	148,197	1,618,810
" 1904	1,737,345	170,510	1,907,855	102,548	52,571	155,119	2,062,974
" 1905	1,766,734	164,098	1,930,832	112,156	68,613	180,769	2,111,601
" 1906	1,679,947	166,011	1,845,958	116,343	35,561	151,904	1,997,862
" 1907	2,181,017	189,892	2,370,909	147,945	59,414	207,359	2,578,268
" 1908	1,787,835	183,495	1,971,330	163,931	64,808	228,739	2,200,069
" 1909	1,507,914	180,740	1,688,654	148,410	53,201	201,611	1,890,265
" 1910	1,934,320	211,236	2,145,556	145,628	37,690	183,318	2,328,874
" 1911	1,667,432	207,335	1,874,767	139,272	32,708	171,980	2,046,747
" 1912	1,660,972	178,116	1,839,088	148,414	34,945	183,359	2,022,447

\* Including Orkney and Shetland.







## APPENDIX E.—

FISH EXPORTED.—RETURN showing the Total Quantity of Fish Exported to

No.	DISTRICTS.	FISH					
		NUMBER OF BRANDED					
		La. Full.			Full.		
		To Ireland	To the Continent.	To Places out of Europe	To England	To the Continent.	To Places out of Europe
<b>EAST COAST.</b>							
1	Eyemouth, - - - -	...	...	...	132	...	
2	Leith, - - - -	...	4,468	...	22,622½	...	
3	Anstruther, - - - -	...	...	...	250	...	
4	Montrose, - - - -	...	117	...	1,009	...	
5	Stonehaven, - - - -	...	...	...	...	...	
6	Aberdeen, - - - -	...	1,408½	...	16,111	...	
7	Peterhead, - - - -	...	280	...	2,843	...	
8	Fraserburgh, - - - -	...	415½	...	9,187½	...	
9	Banff, - - - -	...	...	...	...	...	
10	Buckie, - - - -	...	...	...	...	...	
11	Findhorn, - - - -	...	...	...	...	...	
12	Cromarty, - - - -	...	...	...	...	...	
13	Helmsdale, - - - -	...	...	...	...	...	
14	Lybster, - - - -	...	...	...	...	...	
15	Wick, - - - -	...	613	...	8,747½	...	
	East Coast Totals carried down, - - - - }	...	7,302	...	60,902½	...	
<b>Orkney and Shetland.</b>							
16	Orkney, - - - -	...	3,732	...	14,395½	...	
17	Shetland, - - - -	...	2,112	...	1,158	...	
	Orkney and Shetland Totals carried down, - - - - }	...	5,844	...	15,553½	...	
<b>WEST COAST.</b>							
18	Stornoway, - - - -	...	...	...	...	...	
19	Barra, - - - -	...	...	...	...	...	
20	Loch Broom, - - - -	...	...	...	...	...	
21	Loch Carron and Skye, - - - -	...	...	...	...	...	
22	Fort-William, - - - -	...	...	...	...	...	
23	Campbeltown, - - - -	...	...	...	...	...	
24	Inveraray, - - - -	...	...	...	...	...	
25	Rothesay, - - - -	...	...	...	...	...	
26	Greenock, - - - -	...	...	...	...	...	
27	Ballantrae, - - - -	...	...	...	...	...	
	West Coast Totals carried down, - - - - }	...	...	...	...	...	
<b>Totals brought down.</b>							
	East Coast, - - - -	...	7,302	...	60,902½	...	
	Orkney and Shetland, - - - -	...	5,844	...	15,553½	...	
	West Coast, - - - -	...	...	...	...	...	
	Grand Totals for 1912, - - - -	...	13,146	...	76,456	...	
	Grand Totals for 1911, - - - -	...	39,501	...	131,037½	...	
	Increase in 1912, - - - -	...	...	...	...	...	
	Decrease in 1912, - - - -	...	26,355	...	54,581½	...	

No. II.

Ireland, to the Continent, and to Places out of Europe during the Year 1912.

EXPORTED.											No.	
BARRELS OF HERRINGS.												
Mat. Full.		Mattie.			La. Spent.		Spent.	Total Branded.				
To the Continent.	To Places out of Europe.	To England	To the Continent.	To Places out of Europe.	To England	To Continent.	To the Continent.	To England	To the Continent.	To Places out of Europe.	Gross Total.	
364	...	...	...	...	...	41	...	...	537	...	537	1
5,195	...	...	6,362½	...	...	2,969	237½	...	41,854½	...	41,854½	2
...	...	...	124	...	...	129	...	...	503	...	503	3
513	...	...	3,079	...	...	83	...	...	4,801	...	4,801	4
...	...	...	...	...	...	...	...	...	...	...	...	5
1,252½	...	...	3,842½	...	100	125	...	100	22,739½	...	22,839½	6
808	...	...	17,822	...	...	3,014	...	...	24,767	...	24,767	7
3,861½	...	...	14,575½	...	...	2,552	...	...	30,592	...	30,592	8
...	...	...	...	...	...	...	...	...	...	...	...	9
...	...	...	...	...	...	...	...	...	...	...	...	10
...	...	...	...	...	...	...	...	...	...	...	...	11
...	...	...	...	...	...	...	...	...	...	...	...	12
...	...	...	...	...	...	...	...	...	...	...	...	13
...	...	...	...	...	...	...	...	...	...	...	...	14
2,821½	...	...	5,644	...	...	634½	...	...	18,460½	...	18,460½	15
14,815½	...	...	51,449½	...	100	9,547½	237½	100	144,254½	...	144,354½	
2,022½	...	...	2,721	...	...	154	...	...	23,025	...	23,025	16
...	...	...	...	...	...	...	...	...	3,270	...	3,270	17
2,022½	...	...	2,721	...	...	154	...	...	26,295	...	26,295	
...	...	...	...	...	...	...	...	...	...	...	...	18
...	...	...	...	...	...	...	...	...	...	...	...	19
...	...	...	...	...	...	...	...	...	...	...	...	20
...	...	...	...	...	...	...	...	...	...	...	...	21
...	...	...	...	...	...	...	...	...	...	...	...	22
...	...	...	...	...	...	...	...	...	...	...	...	23
...	...	...	...	...	...	...	...	...	...	...	...	24
...	...	...	...	...	...	...	...	...	...	...	...	25
...	...	...	...	...	...	...	...	...	...	...	...	26
...	...	...	...	...	...	...	...	...	...	...	...	27
...	...	...	...	...	...	...	...	...	...	...	...	
14,815½	...	...	51,449½	...	100	9,547½	237½	100	144,254½	...	144,354½	
2,022½	...	...	2,721	...	...	154	...	...	26,295	...	26,295	
...	...	...	...	...	...	...	...	...	...	...	...	
16,838	...	...	54,170½	...	100	9,701½	237½	100	170,549½	...	170,649½	
16,311	...	...	36,441½	...	...	41,233½	370½	...	264,895	...	264,895	
527	...	...	17,729	...	100	...	...	100	...	...	...	
...	...	...	...	...	...	31,532	133	...	94,345½	...	94,245½	

## APPENDIX E.—

FISH EXPORTED.—RETURN showing the Total Quantity of Fish Exported to

DISTRICTS.		NUMBER OF UNBRANDED BARRELS OF HERRINGS.					Total Branded and Unbranded.	NUMBER OF BARRELS OF HERRINGS SPRINKLED OR ICED. To the Continent.
		To England	To Ireland	To the Continent.	To Places out of Europe.	Total.		
		<b>FISH EX-</b>						
<b>EAST COAST.</b>								
1	Eyemouth, - -	...	...	6,141½	...	6,141½	6,678½	3,926
2	Leith, - - -	...	229	222,817¼	137½	223,183¾	265,038¼	7,942
3	Anstruther, - -	...	...	...	...	...	503	...
4	Montrose, - - -	...	...	666	...	666	5,467	913½
5	Stonehaven, - -	...	...	...	...	...	...	...
6	Aberdeen, - - -	3198½	...	12,734	...	15,932½	38,772	488
7	Peterhead, - - -	...	...	135,073	...	135,073	159,840	...
8	Fraserburgh, - -	...	...	150,439	...	150,439	181,031	...
9	Banff, - - -	...	...	1,500	...	1,500	1,500	...
10	Buckie, - - -	...	...	8,149	...	8,149	8,149	...
11	Findhorn, - - -	...	...	...	...	...	...	...
12	Cromarty, - - -	...	...	...	...	...	...	...
13	Helmsdale, - - -	...	...	...	...	...	...	...
14	Lybster, - - -	...	...	...	...	...	...	...
15	Wick, - - -	...	...	155,982½	...	155,982½	174,443	7,422
East Coast Totals } carried down, - }		3198½	229	693,502¼	137½	697,067¼	841,421¾	20,691½
<b>Orkney &amp; Shetland.</b>								
16	Orkney, - - -	...	...	132,014½	...	132,014½	155,039½	5,536
17	Shetland, - - -	...	...	413,906½	1,383½	415,290	418,560	4,995
Orkney & Shetland } Totals carried down }		...	...	545,921	1,383½	547,304½	573,599½	10,531
<b>WEST COAST.</b>								
18	Stornoway, - - -	...	...	25,774	1,454	27,228	27,228	...
19	Barra, - - -	...	...	4,243	...	4,243	4,243	...
20	Loch Broom, - -	...	...	603	...	603	603	...
21	Loch Carron & Skye,	...	...	...	...	...	...	...
22	Fort-William, - -	...	...	...	...	...	...	...
23	Campbeltown, - -	...	...	...	...	...	...	...
24	Inveraray, - - -	...	...	...	...	...	...	...
25	Rothesay, - - -	...	...	...	...	...	...	...
26	Greenock, - - -	...	758	...	90,496	91,254	91,254	...
27	Ballantrae, - - -	...	...	...	...	...	...	...
West Coast Totals } carried down, - }		...	758	30,620	91,950	123,328	123,328	...
<b>Totals brought down</b>								
East Coast, - - -		3198½	229	693,502¼	137½	697,067¼	841,421¾	20,691½
Orkney & Shetland,		...	...	545,921	1,383½	547,304½	573,599½	10,531
West Coast, - - -		...	758	30,620	91,950	123,328	123,328	...
Grand Totals for 1912		3198½	987	1270043¼	93,471	1367699¾	1,538,349¼	31,222½
Grand Totals for 1911		2582½	3,554	1162086	75,002	1243227¾	1,508,122½	25,843½
Increase in 1912, -		616	...	107,957¾	18,469	124,472¼	30,226¾	5,379
Decrease in 1912, -		...	2,567	...	...	...	...	...

NOTE.—In addition to the above there were 11,102 barrels of Irish herrings, and 75 barrels of English herrings shipped via Glasgow to America.

No. II.—continued.

Ireland, to the Continent, and to Places out of Europe, during the Year 1912.

PORTED—continued.										DISTRICTS.
COD, LING, & C.						Mackerel Cured in Pickle.		SPRATS.		
Cwts. Dried.				Barrels Cured in Pickle.		Exported to		Barrels.		
To Ireland.	To the Continent.	To Places out of Europe	Total.	Con- tinent	Eng- land	Amer- ica.	Nor- way.			
2,196	...	...	...	...	...	...	...	...		...
...	24668	14267	41,131	44	...	77	...	725	...	Eyemouth.
...	...	...	...	...	...	...	...	...	...	Leith.
...	...	...	...	...	...	...	...	...	...	Anstruther.
...	...	...	...	...	...	...	...	...	...	Montrose.
...	57472	31129	88,601	...	601	...	...	...	...	Stonehaven.
...	...	...	...	...	...	...	...	...	...	Aberdeen.
...	...	...	...	...	...	...	...	...	...	Peterhead.
...	...	...	...	...	...	...	...	...	...	Fraserburgh.
...	...	...	...	...	...	...	...	...	...	Banff.
...	...	...	...	...	...	...	...	...	...	Buckie.
...	...	...	...	...	...	...	...	...	...	Findhorn.
...	...	...	...	...	...	...	...	...	...	Cromarty.
...	...	...	...	...	...	...	...	...	...	Helmsdale.
...	...	...	...	...	...	...	...	...	...	Lybster.
...	...	...	...	...	...	...	...	...	...	Wick.
2,196	82140	45396	129,732	44	601	77	...	725	...	{ East Coast Totals car- ried down.
460	10400	...	10,860	...	...	...	...	...	...	<b>Orkney and Shetland.</b>
2,530	7,580	387	10,547	...	...	...	1097	...	...	Orkney.
...	...	...	...	...	...	...	...	...	...	Shetland.
3,040	17980	387	21,407	...	...	...	1097	...	...	{ Orkney and Shetland Totals carried down.
...	...	...	...	...	...	1500	...	...	...	<b>WEST COAST.</b>
340	...	...	340	...	...	...	...	...	...	Stornoway.
...	...	...	...	...	...	...	...	...	...	Barra.
...	...	...	...	...	...	...	...	...	...	Loch Broom.
370	...	...	370	...	...	...	...	...	...	Loch Carron and Skye.
...	...	...	...	...	...	...	...	...	...	Fort-William.
...	...	...	...	...	...	...	...	...	...	Campbeltown.
...	...	...	...	...	...	...	...	...	...	Inveraray.
11814	6,003	146	17,963	...	...	621	...	...	...	Rothesay.
...	...	...	...	...	...	...	...	...	...	Greenock.
...	...	...	...	...	...	...	...	...	...	Ballantrae.
12524	6,003	146	18,673	...	...	2121	...	...	...	{ West Coast Totals car- ried down.
2,196	82140	45396	129,732	44	601	77	...	725	...	<b>Totals brought down.</b>
3,040	17980	387	21,407	...	...	...	1097	...	...	East Coast.
12524	6003	146	18,673	...	...	2121	...	...	...	Orkney and Shetland.
...	...	...	...	...	...	...	...	...	...	West Coast.
17760	106123	45929	169,812	44	601	2198	1097	725	...	Grand Totals for 1912.
16726	85704	53482	155,912	116	161	827	1020	3,156	...	Grand Totals for 1911.
1,034	20419	...	13,900	...	445	1371	77	...	...	Increase in 1912.
...	...	7,553	...	72	...	...	...	2,431	...	Decrease in 1912.

There were also exported 104,146 cwts. of preserved fish which are not included above.



## APPENDIX E.—

DESTINATION OF EXPORTS.—STATEMENT showing the Ports or

No.	DISTRICTS.	BARRELS OF HERRINGS					
		To RUSSIA.					
		Helsing- fors.	Wyborg.	St Peters- burg.	Revel.	Port Baltic.	Riga.
<b>EAST COAST.</b>							
1	Eyemouth, . . . . .	...	...	...	...	...	
2	Leith, . . . . .	...	...	40,105 <sup>3</sup> / <sub>4</sub>	...	47,389	
3	Anstruther, . . . . .	...	...	...	...	...	
4	Montrose, . . . . .	...	...	...	...	...	
5	Stonehaven, . . . . .	...	...	...	...	...	
6	Aberdeen, . . . . .	...	...	1,979	...	...	
7	Peterhead, . . . . .	1,549	4,517	27,318 <sup>1</sup> / <sub>2</sub>	2,751 <sup>1</sup> / <sub>2</sub>	6,992	
8	Fraserburgh, . . . . .	...	1,053	19,025	2,491 <sup>1</sup> / <sub>2</sub>	16,010	
9	Banff, . . . . .	...	...	...	...	...	
10	Buckie, . . . . .	...	...	2,232	...	...	
11	Findhorn, . . . . .	...	...	...	...	...	
12	Cromarty, . . . . .	...	...	...	...	...	
13	Helmsdale, . . . . .	...	...	...	...	...	
14	Lybster, . . . . .	...	...	...	...	...	
15	Wick, . . . . .	...	...	36,492 <sup>1</sup> / <sub>2</sub>	1,089	2,440	
	East Coast Totals carried down, . . . . . }	1,549	5,570	127,152 <sup>3</sup> / <sub>4</sub>	3,840 <sup>1</sup> / <sub>2</sub>	2,491 <sup>1</sup> / <sub>2</sub>	72,831
<b>Orkney and Shetland.</b>							
16	Orkney, . . . . .	...	...	51,835	...	3,257	
17	Shetland, . . . . .	...	4,000	161,590 <sup>1</sup> / <sub>2</sub>	...	8,374	
	Orkney and Shetland Totals carried down, . . . . . }	...	4,000	213,425 <sup>1</sup> / <sub>2</sub>	...	11,631	
<b>WEST COAST.</b>							
18	Stornoway, . . . . .	...	...	19,829 <sup>1</sup> / <sub>2</sub>	...	1,953	
19	Barra, . . . . .	...	...	4,243	...	...	
20	Loch Broom, . . . . .	...	...	...	...	...	
21	Loch Carron and Skye, . . . . .	...	...	...	...	...	
22	Fort-William, . . . . .	...	...	...	...	...	
23	Campbeltown, . . . . .	...	...	...	...	...	
24	Inveraray, . . . . .	...	...	...	...	...	
25	Rothesay, . . . . .	...	...	...	...	...	
26	Greenock, . . . . .	...	...	...	...	...	
27	Ballantrae, . . . . .	...	...	...	...	...	
	West Coast Totals carried down, . . . . . }	...	...	24,072 <sup>1</sup> / <sub>2</sub>	...	1,953	
<b>Totals brought down.</b>							
	East Coast, . . . . .	1,549	5,570	127,152 <sup>3</sup> / <sub>4</sub>	3,840 <sup>1</sup> / <sub>2</sub>	2,491 <sup>1</sup> / <sub>2</sub>	72,831
	Orkney and Shetland, . . . . .	...	4,000	213,425 <sup>1</sup> / <sub>2</sub>	...	...	11,631
	West Coast, . . . . .	...	...	24,072 <sup>1</sup> / <sub>2</sub>	...	...	1,953
	Grand Totals for 1912, . . . . .	1,549	9,570	364,650 <sup>3</sup> / <sub>4</sub>	3,840 <sup>1</sup> / <sub>2</sub>	2,491 <sup>1</sup> / <sub>2</sub>	86,415
	Grand Totals for 1911, . . . . .	1,200	22,980 <sup>1</sup> / <sub>2</sub>	296,649 <sup>3</sup> / <sub>4</sub>	12,279 <sup>1</sup> / <sub>2</sub>	4,220	60,830 <sup>1</sup> / <sub>2</sub>
	Increase in 1912, . . . . .	349	...	68,001	...	...	25,584 <sup>1</sup> / <sub>2</sub>
	Decrease in 1912, . . . . .	...	13,410 <sup>1</sup> / <sub>2</sub>	...	8,439	1,728 <sup>1</sup> / <sub>2</sub>	...

NOTE.—The number of barrels of cured herrings exported to American ports was 90,496

No. III.

Places to which the Herrings Exported to the Continent were Shipped.

EXPORTED.					DISTRICTS.
TO RUSSIA.			TO GERMANY.		
Libau.	Windau.	Total.	Memel.	Königsberg.	
...	...	...	...	6,678½	<b>EAST COAST.</b>
...	40	87,534¾	...	6,420	Eyemouth.
...	...	...	...	...	Leith.
...	...	...	...	...	Anstruther.
...	...	...	...	...	Montrose.
3,004½	...	4,983½	...	7,687	Stonehaven.
54,864½	...	97,992½	...	26,193½	Aberdeen.
67,458	...	106,037½	...	22,734	Peterhead.
...	...	...	...	...	Fraserburgh.
...	...	2,232	...	5,917	Banff.
...	...	...	...	...	Buckie.
...	...	...	...	...	Findhorn.
...	...	...	...	...	Cromarty.
...	...	...	...	...	Helmsdale.
...	...	...	...	...	Lybster.
46,462½	...	86,484	...	25,185½	Wick.
171,789½	40	385,264¼	...	100,815½	East Coast Totals carried down.
					<b>Orkney and Shetland.</b>
28,880	...	83,972	...	17,649½	Orkney.
78,658	...	252,622½	...	58,634	Shetland.
107,538	...	336,594½	...	76,283½	{ Orkney and Shetland Totals carried down.
					<b>WEST COAST.</b>
2,302½	...	24,085	...	872	Stornoway.
...	...	4,243	...	...	Barra.
...	...	...	...	603	Loch Broom.
...	...	...	...	...	Loch Carron and Skye.
...	...	...	...	...	Fort-William.
...	...	...	...	...	Campbeltown.
...	...	...	...	...	Inveraray.
...	...	...	...	...	Rothsay.
...	...	...	...	...	Greenock.
...	...	...	...	...	Ballantrae.
2,302½	...	28,328	...	1,475	West Coast Totals carried down.
					<b>Totals brought down.</b>
171,789½	40	385,264¼	...	100,815½	East Coast.
107,538	...	336,594½	...	76,283½	Orkney and Shetland.
2,302½	...	28,328	...	1,475	West Coast.
281,630	40	750,186¾	...	178,574	Grand Totals for 1912.
257,653¾	...	655,814	...	183,109½	Grand Totals for 1911.
23,976¼	40	94,372¾	...	...	Increase in 1912.
...	...	...	...	4,535½	Decrease in 1912.

## APPENDIX E.—

STATEMENT showing the Ports or Places to which the Herrings

No.	DISTRICTS.	BARRELS OF HERRINGS				
		To GERMANY— <i>continued.</i>				
		Danzig.	Stettin.	Ham- burg.	Bremen.	Total.
<b>EAST COAST.</b>						
1	Eyemouth, . . . . .	...	...	3,926	...	10,604½
2	Leith, . . . . .	11,013½	86,910¾	78,905	5	183,254
3	Anstruther, . . . . .	...	503	...	...	503
4	Moutrou, . . . . .	2,625	2,842	913½	...	6,380½
5	Stonehaven, . . . . .	...	...	...	...	...
6	Aberdeen, . . . . .	3,260	351½	19,679½	...	30,978
7	Peterhead, . . . . .	21,295½	14,358½	...	...	61,847½
8	Fraserburgh, . . . . .	19,521	32,738½	...	...	74,993½
9	Banff, . . . . .	...	1,500	...	...	1,500
10	Buckie, . . . . .	...	...	...	...	5,917
11	Findhorn, . . . . .	...	...	...	...	...
12	Cromarty, . . . . .	...	...	...	...	...
13	Helmsdale, . . . . .	...	...	...	...	...
14	Lybster, . . . . .	...	...	...	...	...
15	Wick, . . . . .	35,083	26,121	8,991½	...	95,381
	East Coast Totals carried down, . . . . .	92,798	165,325¼	112,415½	5	471,359
<b>Orkney and Shetland.</b>						
16	Orkney, . . . . .	13,307	33,556	12,091	...	76,603½
17	Shetland, . . . . .	8,585	31,995½	69,543½	...	168,758
	Orkney and Shetland } Totals carried down, . . . . .	21,892	65,551½	81,634½	...	245,361½
<b>WEST COAST.</b>						
18	Stornoway, . . . . .	...	817	...	...	1,689
19	Barra, . . . . .	...	...	...	...	...
20	Loch Broom, . . . . .	...	...	...	...	603
21	Loch Carron and Skye, . . . . .	...	...	...	...	...
22	Fort-William, . . . . .	...	...	...	...	...
23	Campbeltown, . . . . .	...	...	...	...	...
24	Inveraray, . . . . .	...	...	...	...	...
25	Rothsay, . . . . .	...	...	...	...	...
26	Greenock, . . . . .	...	...	...	...	...
27	Ballantrae, . . . . .	...	...	...	...	...
	West Coast Totals carried down, . . . . .	...	817	...	...	2,292
<b>Totals brought down.</b>						
	East Coast, . . . . .	92,798	165,325¼	112,415½	5	471,359
	Orkney and Shetland, . . . . .	21,892	65,551½	81,634½	...	245,361½
	West Coast, . . . . .	...	817	...	...	2,292
	Grand Totals for 1912, . . . . .	114,690	231,693¾	194,050	5	719,012½
	Grand Totals for 1911, . . . . .	119,243½	313,783¾	178,082¼	...	794,219
	Increase in 1912, . . . . .	...	...	15,967¾	5	...
	Decrease in 1912, . . . . .	4,553½	82,090	...	...	75,206½

No. III.—continued.

Exported to the Continent were Shipped.

EXPORTED.						Total Exported to the Continent.	DISTRICTS.
To HOLLAND.				To Sweden, Norway, and Denmark.	To Faroe.		
Rotterdam.	Harlingen.	Antwerp.	Total.				
...	...	...	...	...	...	10,604½	<b>EAST COAST.</b> Eyemouth. Leith. Anstruther. Montrose. Stonehaven. Aberdeen. Peterhead. Fraserburgh. Banff. Buckie. Findhorn. Cromarty. Helmsdale. Lybster. Wick.
1,678½	25	76	1,779½	45½	...	272,614	
...	...	...	...	...	...	503	
...	...	...	...	...	...	6,380½	
...	...	...	...	...	...	...	
...	...	...	...	...	...	35,961½	
...	...	...	...	...	...	159,840	
...	...	...	...	...	...	181,031	
...	...	...	...	...	...	1,500	
...	...	...	...	...	...	8,149	
...	...	...	...	...	...	...	
...	...	...	...	...	...	...	
...	...	...	...	...	...	...	
...	...	...	...	...	...	181,865	
1,678½	25	76	1,779½	45½	...	858,448½	
...	...	...	...	...	...	160,575½	<b>Orkney and Shetland.</b> Orkney. Shetland.
...	...	...	...	650	141	422,171½	
...	...	...	...	650	141	582,747	{ Orkney and Shetland Totals carried down.
...	...	...	...	...	...	25,774	<b>WEST COAST.</b> Stornoway. Parra. Loch Broom. Loch Carrn and Skye. Fort-William. Campbeltown. Inveraray. Rothesay. Greenock. Ballantrae.
...	...	...	...	...	...	4,243	
...	...	...	...	...	...	603	
...	...	...	...	...	...	...	
...	...	...	...	...	...	...	
...	...	...	...	...	...	...	
...	...	...	...	...	...	...	
...	...	...	...	...	...	...	
...	...	...	...	...	...	...	
...	...	...	...	...	...	...	
...	...	...	...	...	...	...	
...	...	...	...	...	...	30,620	{ West Coast Totals carried down.
...	...	...	...	...	...	858,448½	<b>Totals brought down.</b> East Coast. Orkney and Shetland. West Coast.
1,678½	25	76	1,779½	45½	...	582,747	
...	...	...	...	650	141	30,620	
1,678½	25	76	1,779½	695½	141	1,471,815½	Grand Totals for 1912. Grand Totals for 1911.
1,371½	12½	82½	1,466½	1,324½	...	1,452,824	
307	12½	...	313	...	141	18,991½	Increase in 1912. Decrease in 1912.
...	...	6½	...	629	...	...	



## APPENDIX E.—

VALUE OF CURED FISH.—RETURN showing the estimated Value during the

DISTRICTS.	VALUE OF CURED HERRINGS BRANDED.						
	La. Full.	Full.	Mat. Full.	Mattie.	La. Spent.	Spent.	Total Branded.
<b>EAST COAST.</b>	£	£	£	£	£	£	£
Eyemouth, . . . . .	335	7,966	2,646	3,847	758	53	15,605
Leith, . . . . .	...	...	...	...	...	...	...
Anstruther, . . . . .	...	1,788	399	557	282	...	3,026
Montrose, . . . . .	288	2,371	1,126	4,325	117	...	8,227
Stonehaven, . . . . .	5	88	41	430	1	...	565
Aberdeen, . . . . .	588	3,997	2,036	5,299	491	...	12,411
Peterhead, . . . . .	2,006	24,355	6,024	30,230	7,466	53	70,134
Fraserburgh, . . . . .	4,524	40,097	9,099	19,419	3,791	...	76,930
Banff, . . . . .	...	570	89	133	57	...	849
Buckie, . . . . .	200	989	392	550	106	...	2,237
Findhorn, . . . . .	...	1,298	437	683	46	...	2,464
Cromarty, . . . . .	...	...	...	...	...	...	...
Helmsdale, . . . . .	...	...	...	...	...	...	...
Lybster, . . . . .	...	13	14	...	...	...	27
Wick, . . . . .	2,091	22,644	6,148	9,714	826	20	41,443
East Coast Totals carried down, . . . . .	10,037	106,176	23,451	75,187	13,941	126	233,918
<b>Orkney and Shetland.</b>							
Orkney, . . . . .	1,954	29,822	3,938	4,987	227	..	40,928
Shetland, . . . . .	7,230	4,252	...	...	150	...	11,632
Orkney and Shetland Totals carried down, . . . . .	9,184	34,074	3,938	4,987	377	...	52,560
<b>WEST COAST.</b>							
Stornoway, . . . . .	...	...	...	...	...	...	...
Barra, . . . . .	...	...	...	...	...	...	...
Loch Broom, . . . . .	...	...	...	...	...	...	...
Loch Carron and Skye, . . . . .	...	...	...	...	...	...	...
Fort-William, . . . . .	...	...	...	...	...	...	...
Campbeltown, . . . . .	...	...	...	...	...	...	...
Inveraray, . . . . .	...	...	...	...	...	...	...
Rothsay, . . . . .	...	...	...	...	...	...	...
Greenock, . . . . .	...	...	...	...	...	...	...
Ballantrae, . . . . .	...	...	...	...	...	...	...
West Coast Totals carried down, . . . . .	...	...	...	...	...	...	...
<b>Totals brought down.</b>							
East Coast, . . . . .	10,037	106,176	23,451	75,187	13,941	126	233,918
Orkney and Shetland, . . . . .	9,184	34,074	3,938	4,987	377	...	52,560
West Coast, . . . . .	...	...	...	...	...	...	...
Grand Totals for 1912, . . . . .	19,221	140,250	32,389	80,174	14,318	126	286,478
Grand Totals for 1911, . . . . .	73,469	209,580	25,791	46,998	44,645	440	400,923
Increase in 1912, . . . . .	...	...	6,598	33,176	...	...	...
Decrease in 1912, . . . . .	54,248	69,330	...	...	30,327	314	114,445

No. IV.

of Cured Herrings, Branded and Unbranded, as well as of Cured Cod, &c.,  
Year 1912.

Value of Cured Herrings Unbranded.	Grand Total Value of Cured Herrings.	VALUE OF CURED COD, LING, &c.				Grand Total Value of Cured Fish.	DISTRICTS.
		Dried.	Pickled.	Smoked.	Total.		
£	£	£	£	£	£	£	
141,269	156,874	...	...	1,938	1,938	158,812	<b>EAST COAST.</b>
16,070	16,070	...	725	...	725	16,795	Eyemouth.
8,438	11,464	2,372	...	420	2,792	14,256	Leith.
3,617	11,844	40	...	849	889	12,733	Anstruther.
1,940	2,505	170	...	775	945	3,450	Montrose.
107,682	120,093	244,235	342	506,935	751,512	871,605	Stonehaven.
330,493	400,627	326	...	2,364	2,690	403,317	Aberdeen.
285,560	362,490	353	450	3,346	4,149	366,639	Peterhead.
11,424	12,273	...	...	4,863	4,863	17,136	Fraserburgh.
9,986	12,223	1,776	748	440	2,964	15,187	Banff.
3,430	5,894	1,278	690	825	2,793	8,687	Buckie.
...	...	42	...	430	472	472	Findhorn.
20	20	60	...	230	290	310	Cromarty.
329	356	...	...	...	...	356	Helmsdale.
317,160	358,603	3,747	1,062	592	5,401	364,004	Lybster.
							Wick.
1,237,418	1,471,336	254,399	4,017	524,007	782,423	2,253,759	{ East Coast Totals carried down.
							<b>Orkney and Shetland.</b>
249,785	290,713	23,663	15	25	23,703	314,416	Orkney.
679,588	691,220	10,015	2,135	400	12,550	703,770	Shetland.
929,373	981,933	33,678	2,150	425	36,253	1,018,186	{ Orkney and Shetland Totals carried down.
							<b>WEST COAST.</b>
171,000	171,000	8,681	2,447	720	11,848	182,848	Stornoway.
47,986	47,986	1,379	134	...	1,513	49,499	Barra.
5,842	5,842	2,015	250	...	2,265	8,107	Loch Broom.
15,796	15,796	...	267	...	267	16,063	Loch Carron and Skye.
11,124	11,124	282	555	...	837	11,961	Fort-William.
6,020	6,020	500	...	...	500	6,520	Campbeltown.
307	307	...	...	...	...	307	Inveraray.
1,805	1,805	...	...	...	...	1,805	Rothsay.
67,482	67,482	215	...	...	215	67,697	Greenock.
500	500	...	...	...	...	500	Ballantrae.
327,862	327,862	13,072	3,653	720	17,445	345,307	{ West Coast Totals carried down.
							<b>Totals brought down.</b>
1,237,418	1,471,336	254,399	4,017	524,007	782,423	2,253,759	East Coast.
929,373	981,933	33,678	2,150	425	36,253	1,018,186	Orkney and Shetland.
327,862	327,862	13,072	3,653	720	17,445	345,307	West Coast.
2,494,653	2,781,131	301,149	9,820	525,152	836,121	3,617,252	Grand Totals for 1912.
1,990,059	2,390,982	205,671	9,397	539,215	754,283	3,145,265	Grand Totals for 1911.
504,594	390,149	95,478	423	...	81,833	471,987	Increase in 1912.
...	...	...	...	14,063	...	...	Decrease in 1912.

## APPENDIX E.—

RETURN showing, under each of the Crown Brands, the Number of Barrels of Districts for Inspection with a view to Branding if in accordance with the Brand was Refused, and the

DISTRICT.	LA. FULL BRAND.			FULL BRAND.			MAT. FULL BRAND.			MATTIE BRAND.		
	Barrels presented.	Barrels refused Brand.		Barrels presented.	Barrels refused Brand.		Barrels presented.	Barrels refused Brand.		Barrels presented.	Barrels refused Brand.	
		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.		Number.	Per cent.
Eyemouth .	167	-	-	4,236	26½	·62	1,554	92	5·92	2,994	·284	9·48
Anstruther .	-	-	-	953½	-	-	224½	-	-	396	5	1·26
Montrose .	143½	-	-	1,346	29	2·15	643	-	-	3,334½	131	3·92
Stonehaven .	3	-	-	55	-	-	26½	-	-	330	-	-
Aberdeen .	347	1	·29	2,556	58	2·26	1,363	6	·44	4,379	303	6·91
Peterhead .	1,013	46	4·54	12,766½	277	2·17	3,365½	109½	3·25	21,083½	930	4·41
Fraserburgh .	2,436	115½	4·74	22,104	430	1·95	5,881½	219½	3·73	16,409	2,028	12·36
Banff .	-	-	-	344½	45	13·06	101	50	49·5	130	35	26·92
Buckie .	85	-	-	708	49	6·92	327	47	14·37	537	-	-
Findhorn .	-	-	-	767½	25	3·25	297	32	10·77	608	62	10·19
Lybster .	-	-	-	7	-	-	8	-	-	23	23	100·
Wick .	1,066	46	4·31	12,511½	434½	3·47	3,616	103	2·85	6,820	121	1·77
Orkney .	4,495	128	2·84	16,198	50½	·31	2,259	9	·39	3,481½	42	1·2
Shetland .	3,690	29	·78	2,314½	16	·69	-	-	-	-	-	-
Totals for 1912	13,450½	365½	2·72	76,868	1,440½	1·87	19,666	668	3·4	60,525½	3,964	6·55
Totals for 1911	42,984	971½	2·26	134,531½	5,684½	4·22	18,807	2,265½	12·04	47,840	12,054	25·20
Increase in 1912	-	-	·46	-	-	-	859	-	-	12,685½	-	-
Decrease in 1912	29,533½	606	-	57,663½	4,244	2·35	-	1,597½	8·64	-	8,090	18·65

No. V.

Cured Herrings presented, during 1912, to the Officers of the various Fishery the Board's Regulations, the Number and Percentage in respect of which Principal Grounds of Refusal.

LA. SPENT BRAND.			SPENT BRAND.			TOTAL.			Principal Grounds of Refusal.
Barrels presented.	Barrels Refused Brand.		Barrels presented.	Barrels refused Brand.		Barrels presented.	Barrels refused Brand.		
	Number.	Per cent.		Number.	Per cent.		Number.	Per cent.	
553½	-	-	44	-	-	9,548½	402½	4·21	Defective selection and salting.
209	-	-	-	-	-	1,783	5	·28	Heavy salting.
90	-	-	-	-	-	5,562	160	2·87	Excessive salting and defective selection
1	-	-	-	-	-	415½	-	-	
491	-	-	-	-	-	9,136	368	4·02	Defective selection, inferior and oily fish.
5,564	34	·61	42	-	-	43,834½	1,396½	3·19	Torn fish and defective selection.
2,788½	32	1·15	-	-	-	49,619	2,825	5·69	Defective selection and inferior quality.
44	-	-	-	-	-	619½	130	20·98	Defective selection and cure.
85½	-	-	-	-	-	1,742½	96	5·51	Defective selection.
40	1½	3·75	-	-	-	1,712½	120½	7·03	Defective selection and cure.
-	-	-	-	-	-	38	23	60·53	Soft and oily fish.
668½	50	7·48	15	1	6·67	24,697	755½	3·06	Inferior quality and defective selection
198½	-	-	-	-	-	26,632	229½	·86	Defective selection and light salting.
100	-	-	-	-	-	6,104½	45	·73	Empty fish and inferior quality.
10,833½	117½	1·08	101	1	·99	181,444½	6,556½	3·61	
44,475½	775	1·70	578	87	15·05	289,216	21837½	7·55	
-	-	-	-	-	-	-	-	-	
33,642	657½	·62	477	86	14·06	107,771½	15,281	3·94	



## APPENDIX F.—

PERSONS EMPLOYED.—RETURN showing the Total Number of branches of the Sea Fisheries

No.	DISTRICTS.	Fishermen and Boys (resident and non-resident).	Fishmongers.	Hawkers of Herring and other Fish.	Fishcurees, and Dealers in Fresh Fish.	Coopers.	Gutters, Packers, Kipperers, etc.	Clerks.	Carters and Labourers.	Persons gathering Bait and Bating Lines.
<b>EAST COAST.</b>										
1	Eyemouth, . . . . .	570	1	8	15	51	418	1	50	22
2	Leith, . . . . .	2,129	650	500	10	64	130	61	80	40
3	Anstruther, . . . . .	1,937	18	44	20	53	390	3	31	74
4	Montrose, . . . . .	947	222	269	21	38	213	16	57	290
5	Stonehaven, . . . . .	219	4	38	5	12	89	1	10	44
6	Aberdeen, . . . . .	3,410	308	306	180	331	3,076	320	1,908	36
7	Peterhead, . . . . .	1,521	11	86	83	484	1,398	57	276	28
8	Fraserburgh, . . . . .	1,913	4	125	86	431	1,306	76	455	30
9	Banff, . . . . .	1,439	1	108	19	51	432	1	21	41
10	Buckie, . . . . .	3,219	2	91	12	112	1,060	58	19	...
11	Findhorn, . . . . .	1,770	20	127	16	69	849	7	47	...
12	Cromarty, . . . . .	636	...	42	3	...	231	...	7	...
13	Helmsdale, . . . . .	366	...	104	7	34	260	2	8	44
14	Lybster, . . . . .	140	2	4	1	6	110	...	3	...
15	Wick, . . . . .	1,533	12	50	55	400	1,056	28	195	...
	East Coast Totals carried down, . . . . .	21,749	1,255	1,902	533	2,136	10,818	631	3,167	649
<b>Orkney and Shetland.</b>										
16	Orkney, . . . . .	927	10	10	10	30	202	4	133	25
17	Shetland, . . . . .	6,118	...	10	40	167	1,248	51	516	25
	Orkney and Shetland Totals carried down, . . . . .	7,045	10	20	50	197	1,450	55	649	50
<b>WEST COAST.</b>										
18	Stornoway, . . . . .	4,082	24	46	33	95	2,716	10	143	...
19	Barra, . . . . .	981	...	...	8	5	743	4	55	195
20	Loch Broom, . . . . .	1,009	2	9	17	5	219	2	32	13
21	Loch Carron and Skye, . . . . .	1,126	...	...	13	4	75	...	5	270
22	Fort-William, . . . . .	495	20	26	4	2	15	...	3	47
23	Campbeltown, . . . . .	720	4	25	21	1	48	1	10	70
24	Inveraray, . . . . .	473	4	6	9	...	30	...	5	10
25	Rothesay, . . . . .	139	46	26	3	...	10	4	8	...
26	Greenock, . . . . .	363	636	1,006	34	34	130	90	257	54
27	Ballantrae, . . . . .	577	30	120	3	...	...	28	92	30
	West Coast Totals carried down, . . . . .	9,965	766	1,264	145	146	3,986	139	610	689
<b>Totals brought down.</b>										
	East Coast, . . . . .	21,749	1,255	1,902	533	2,136	10,818	631	3,167	649
	Orkney and Shetland, . . . . .	7,045	10	20	50	197	1,450	55	649	50
	West Coast, . . . . .	9,965	766	1,264	145	146	3,986	139	610	689
	Grand Totals for 1912, . . . . .	38,759	2,031	3,186	728	2,479	16,254	825	4,426	1,388
	Grand Totals for 1911, . . . . .	38,626	1,977	3,342	741	2,514	16,576	792	4,347	1,444
	Increase in 1912, . . . . .	133	54	...	...	...	...	33	79	...
	Decrease in 1912, . . . . .	...	...	156	13	35	322	...	...	56

No I.

Persons employed in each District in connection with the various during the Year 1912.

Boymakers.	Boat Builders.	Basketmakers.	Persons mending and mending Nets.	Persons manufacturing Barrel Staves.	Persons employed on board Vessels Curing, Exporting, and Carrying Herring and other Fish.		Persons employed on board Vessels importing Salt, Stave Wood, and Hoops.		Other Occupations.	Total Persons employed.	DISTRICTS
					British.	Foreign.	British.	Foreign.			
...	10	...	...	...	233	27	147	22	...	1,575	<b>EAST COAST.</b>
35	20	20	400	10	1,196	...	26	25	45	5,441	Eyemouth.
...	17	...	320	12	21	4	30	51	40	3,065	Leith.
8	36	6	7	14	39	19	33	19	...	2,254	Anstruther.
...	2	...	120	...	10	...	9	...	...	563	Montrose.
130	1,800	21	300	40	755	92	218	315	120	13,666	Stonehaven.
17	33	1	170	73	269	544	250	191	...	5,492	Aberdeen.
8	34	2	98	28	965	558	225	341	...	6,685	Peterhead.
...	62	...	...	...	17	6	5	...	...	2,203	Fraserburgh.
...	122	...	126	5	16	37	15	...	...	4,894	Banff.
...	42	...	20	...	65	...	12	...	...	2,844	Buckie.
...	6	...	6	4	3	...	...	...	...	938	Findhorn.
...	2	...	6	2	63	...	18	...	...	916	Cromarty.
...	...	...	...	...	4	12	...	...	...	282	Helmsdale.
6	12	6	12	8	372	722	156	232	...	4,855	Lybster.
204	2,198	56	1,585	196	4,028	2,021	1,144	1,196	205	55,673	Wick.
											{ East Coast Totals carried down.
											<b>Orkney and Shetland.</b>
...	18	...	...	...	198	750	49	62	40	2,468	Orkney.
...	38	...	46	8	900	1,407	731	194	...	11,499	Shetland.
...	56	...	46	8	1,098	2,157	780	256	40	13,967	{ Orkney and Shetland Totals carried down.
											<b>WEST COAST.</b>
2	19	1	2	15	383	69	91	52	...	7,783	Stornoway.
...	6	...	...	...	65	19	60	...	...	2,141	Barra.
...	6	...	3	...	45	2	16	...	...	1,330	Loch Broom.
...	15	13	...	...	80	...	4	...	...	1,605	Loch Carron and Skye.
...	...	...	...	...	96	...	16	...	...	724	Fort-William.
...	7	...	85	...	89	...	6	...	...	1,087	Campbeltown.
...	5	...	...	...	24	...	...	...	...	566	Inveraray.
...	12	...	...	...	31	...	2	...	...	281	Rothsay.
10	63	1	500	...	694	...	32	...	24	3,928	Greenock.
...	21	...	...	...	4	...	...	...	...	905	Ballantrae.
12	154	15	590	15	1,511	90	227	52	24	20,400	{ West Coast Totals carried down.
											<b>Totals brought down.</b>
204	2,198	56	1,585	196	4,028	2,021	1,144	1,196	205	55,673	East Coast.
...	56	...	46	8	1,098	2,157	780	256	40	13,967	Orkney and Shetland.
12	154	15	590	15	1,511	90	227	52	24	20,400	West Coast.
216	2,408	71	2,221	219	6,637	4,268	2,151	1,504	269	90,040	Grand Totals for 1912.
196	2,650	75	2,072	202	5,752	4,408	1,558	1,880	...	89,152	Grand Totals for 1911.
20	...	4	149	17	885	...	593	...	269	888	Increase in 1912.
...	242	...	...	...	...	140	...	376	...	...	Decrease in 1912.

## APPENDIX F.—

TRANSPORT TRADE.—Return showing the Tonnage of Shipping, and the Number distinguishing between British

No.	DISTRICTS.	TONNAGE											
		Importing Stave Wood and Hoops for the Fisheries.				Importing Salt for the Fisheries.				Carrying Herrings, Cod Fish, or Fishing Stock Coastwise.			
		British.		Foreign.		British.		Foreign.		British.		Foreign.	
		Tons.	Men.	Tons.	Men.	Tons.	Men.	Tons.	Men.	Tons.	Men.	Tons.	Men.
<b>EAST COAST.</b>													
1	Eyemouth, . . . . .	...	...	548	22	1,908	147	...	...	2,129	199	...	...
2	Leith, . . . . .	330	16	190	8	200	10	300	17	500	20	...	...
3	Anstruther, . . . . .	...	...	340	26	334	30	497	25	256	21	66	2
4	Montrose, . . . . .	260	12	...	...	335	21	464	19	1,011	36	...	...
5	Stonehaven, . . . . .	...	...	...	...	190	9	...	...	290	10	...	...
6	Aberdeen, . . . . .	2,740	108	4,980	190	2,650	110	2,950	125	12,160	452	1150	45
7	Peterhead, . . . . .	905	30	4,651	156	4,338	220	1,316	35	5,862	211	527	21
8	Fraserburgh, . . . . .	1,753	64	5,372	213	4,055	161	4,133	128	10,215	769	1867	86
9	Banff, . . . . .	...	...	...	...	105	5	...	...	440	17	...	...
10	Buckie, . . . . .	...	...	...	...	380	15	...	...	450	16	...	...
11	Findhorn, . . . . .	...	...	...	...	183	12	...	...	1,636	65	...	...
12	Cromarty, . . . . .	...	...	...	...	...	...	...	...	30	3	...	...
13	Helmisdale, . . . . .	...	...	...	...	...	...	...	...	874	63	...	...
14	Lybster, . . . . .	234	18	...	...	...	...	...	...	24	4	220	12
15	Wick, . . . . .	1,364	54	2,926	90	1,976	102	3,879	142	6,448	372	459	22
East Coast Totals carried down, }		7,586	302	19,007	705	16,654	842	13,544	491	42,325	2,258	4289	188
<b>Orkney and Shetland.</b>													
16	Orkney, . . . . .	...	...	...	...	1,598	49	4,650	62	4,206	168	...	...
17	Shetland, . . . . .	9,371	451	2,366	73	4,708	280	3,748	121	11,029	458	206	12
Orkney and Shetland } Totals carried down, }		9,271	451	2,366	73	6,306	329	8,398	183	15,235	626	206	12
<b>WEST COAST.</b>													
18	Stornoway, . . . . .	331	22	100	4	1,210	69	1,104	48	8,715	335	...	...
19	Barra, . . . . .	27	1	...	...	1,475	59	...	...	1,628	65	...	...
20	Loch Broom, . . . . .	30	2	...	...	195	14	...	...	559	41	...	...
21	Loch Carron and Skye, . . . . .	...	...	...	...	100	4	...	...	1,925	77	...	...
22	Fort William, . . . . .	...	...	...	...	396	16	...	...	2,387	96	...	...
23	Campbeltown, . . . . .	...	...	...	...	150	6	...	...	2,025	81	...	...
24	Inveraray, . . . . .	...	...	...	...	...	...	...	...	596	24	...	...
25	Rothesay, . . . . .	...	...	...	...	40	2	...	...	644	26	...	...
26	Greenock, . . . . .	...	...	...	...	809	32	...	...	950	38	...	...
27	Ballantrae, . . . . .	...	...	...	...	...	...	...	...	121	4	...	...
West Coast Totals } carried down, }		388	25	100	4	4,375	202	1,104	48	19,550	787	...	...
<b>Totals brought down.</b>													
East Coast, . . . . .		7,586	302	19,007	705	16,654	842	13,544	491	42,325	2,258	4289	188
Orkney and Shetland, . . . . .		9,371	451	2,366	73	6,306	329	8,398	183	15,235	626	206	12
West Coast, . . . . .		388	25	100	4	4,375	202	1,104	48	19,550	787	...	...
Grand Totals for 1912, . . . . .		17,345	778	21,473	782	27,335	1,373	23,046	722	77,110	3,671	4495	200
Grand Totals for 1911, . . . . .		7,929	373	28,315	1138	25,732	1,185	16,692	742	64,638	3,067	7442	324
Increase in 1912, . . . . .		9,416	405	...	...	1,603	188	6,354	...	12,472	604	...	...
Decrease in 1912, . . . . .		...	...	6,842	356	...	...	...	20	...	...	2947	124



No. II.

of Seamen, engaged in transporting Fish and Curing Material, in the Year 1912, and Foreign Tonnage and Men.

AND MEN.

Exporting Herrings or Cod Fish.				Total.				GRAND TOTAL.		No.
British.		Foreign.		British.		Foreign.		British and Foreign.		
Tons.	Men.	Tons.	Men.	Tons.	Men.	Tons.	Men.	Tons.	Men.	
636	34	655	27	4,673	380	1,203	49	5,876	429	1
29,448	1,176	...	...	30,478	1,222	490	25	30,968	1,247	2
...	...	50	2	590	51	953	55	1,543	106	3
91	3	546	19	1,697	72	1,010	38	2,707	110	4
...	...	...	...	480	19	...	...	480	19	5
7,163	303	1,252	47	24,713	973	10,332	407	35,045	1,380	6
1,648	58	12,615	523	12,753	519	19,109	735	31,862	1,254	7
3,552	196	11,613	472	19,575	1,190	22,990	899	42,565	2,089	8
...	...	150	6	545	22	150	6	695	28	9
...	...	777	37	830	31	777	37	1,607	68	10
...	...	...	...	1,819	77	...	...	1,819	77	11
...	...	...	...	30	3	...	...	30	3	12
...	...	...	...	1,108	81	...	...	1,108	81	13
...	...	...	...	24	4	220	12	244	16	14
...	...	17,512	700	9,788	528	24,776	954	34,564	1,482	15
42,538	1,770	43,170	1,833	109,103	5,172	82,010	3,217	191,113	8,389	
656	30	15,258	750	6,460	247	19,908	812	26,368	1,059	16
10,806	432	29,088	1,374	35,914	1,621	35,408	1,580	71,322	3,201	17
11,462	462	44,346	2,124	42,374	1,868	55,316	2,392	97,690	4,260	
826	30	1,757	69	11,082	456	2,961	121	14,043	577	18
...	...	366	19	3,130	125	366	19	3,496	144	19
23	4	60	2	807	61	60	2	867	63	20
...	...	...	...	2,025	81	...	...	2,025	81	21
...	...	...	...	2,783	112	...	...	2,783	112	22
20	8	...	...	2,195	95	...	...	2,195	95	23
...	...	...	...	596	24	...	...	596	24	24
...	...	...	...	684	28	...	...	684	28	25
16,410	656	...	...	18,169	726	...	...	18,169	726	26
...	...	...	...	121	4	...	...	121	4	27
17,279	698	2,183	90	41,592	1,712	3,387	142	44,979	1,854	
42,538	1,770	45,170	1,833	109,103	5,172	82,010	3,217	191,113	8,389	
11,462	462	44,346	2,124	42,374	1,868	55,316	2,392	97,690	4,260	
17,279	698	2,183	90	41,592	1,712	3,387	142	44,979	1,854	
71,279	2,930	91,699	4,047	193,069	8,752	140,713	5,751	333,782	14,503	
67,785	2,635	92,412	4,084	166,084	7,260	144,861	6,288	310,945	13,548	
3,494	295	...	...	26,985	1,492	...	...	22,837	955	
...	...	713	37	...	...	4,148	537	...	...	



APPENDIX F.—No. III.

CASUALTIES.—RETURN, by Districts, of the Number of Lives lost in connection with the Sea Fisheries of Scotland, and the manner in which the Casualties happened; the Number of Boats totally wrecked, and the Value thereof; the Number of Boats damaged, and the Amount of Damage; and the loss on Nets and other Fishing Material lost or damaged, in the Year 1912.

No.	DISTRICTS.	Lives Lost.							Boats totally Wrecked and Value thereof.		Boats Damaged and Amount of Damage.		Loss on Boats Totally Wrecked or Damaged.	Loss on Nets and other Fishing Material Lost or Damaged.	Total Loss on Boats, Nets, &c., Lost or Damaged.	No.
		Through Foundering at Sea.	In taking Harbours.	In Collisions.	Washed Overboard.	Falls Overboard.	Knocked Overboard or killed by Sail, &c.	Total.	Number.	Value.	Number.	Amount of Damage.				
<b>EAST COAST.</b>																
1	Eyemouth, . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
2	Leith, . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
3	Anstruther, . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
4	Montrose, . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4
5	Stonehaven, . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
6	Aberdeen, . . . . .	4	..	..	3	..	..	..	..	..	..	..	..	..	..	6
7	Peterhead, . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7
8	Fraserburgh, . . . . .	4	..	..	..	..	..	..	..	..	..	..	..	..	..	8
9	Banff, . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9
10	Buckie, . . . . .	..	2	..	2	..	..	..	..	..	..	..	..	..	..	10
11	Findhorn, . . . . .	..	..	1	..	..	..	..	..	..	..	..	..	..	..	11
12	Cromarty, . . . . .	4	..	..	..	..	..	..	..	..	..	..	..	..	..	12
13	Helmsdale, . . . . .	..	2	..	..	..	..	..	..	..	..	..	..	..	..	13
14	Lybster, . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14
15	Wick, . . . . .	3	..	..	..	..	..	..	..	..	..	..	..	..	..	15
East Coast Totals carried down, . . . . .		15	4	1	5	5	30	28	35,678	687	27,019	62,697	65,560	128,257		



BOAT-BUILDING.—RETURN for the Year 1912, showing the Number and Value of Fishing Steam from Sailing and Motors Vessels, and dividing the latter into First, Second, and Third

No.	DISTRICTS.	FISHING BOATS.											
		Propelled by Steam		Propelled by Sails or Motor.								Total.	
		No.	Value.	1st Class.				2nd Class.		3rd Class.		Total.	
				45 feet keel and upwards.		30 to 45 feet keel.		18 to 30 feet keel.		Under 18 feet keel.		No.	Value.
No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.		
	<b>EAST COAST.</b>		£		£		£		£		£		£
1	Eyemouth, . . . . .							1	130			1	130
2	Leith, . . . . .												
3	Anstruther, . . . . .							3	390			3	390
4	Montrose, . . . . .							1	190	2	20	3	210
5	Stonehaven, . . . . .												
6	Aberdeen, . . . . .	14	49,000									14	49,000
7	Peterhead, . . . . .	1	2,250					2	70			2	170
8	Fraserburgh, . . . . .	5	13,350			6	2,195	2	75	24	360	32	2,630
9	Banff, . . . . .	5	13,000	2	1,975	12	3,023	9	503	3	54	26	5,555
10	Buckie, . . . . .	5	12,500					2	250			2	250
11	Findhorn, . . . . .	4	10,400			2	460	7	560			9	1,020
12	Cromarty, . . . . .							3	280			3	280
13	Helmsdale, . . . . .												
14	Lybster, . . . . .												
15	Wick, . . . . .					2	480	2	260			4	740
	East Coast Totals carried down, }	34	100,500	2	1,975	22	6,158	32	2,708	29	434	85	11,275
	<b>Orkney and Shetland.</b>												
16	Orkney, . . . . .									11	98	11	98
17	Shetland, . . . . .							2	600	14	82	16	682
	Orkney and Shetland } Totals car'd down, }							2	600	25	180	27	780
	<b>WEST COAST.</b>												
18	Stornoway, . . . . .							3	66	2	34	5	100
19	Barra, . . . . .												
20	Loch Broom, . . . . .									5	65	5	65
21	Loch Carron and Skye, . . . . .							1	15	1	10	2	25
22	Fort-William, . . . . .							2	40	5	63	7	103
23	Campbeltown, . . . . .							1	170			1	170
24	Inveraray, . . . . .							3	810			1	810
25	Rothsay, . . . . .							2	350	1	23	3	403
26	Greenock, . . . . .							1	205			3	205
27	Ballantrae, . . . . .									1	27	1	27
	West Coast Totals carried down, }							13	1,686	15	222	28	1,908
	<b>Totals brought down</b>	34	100,500	2	1,975	22	6,158	32	2,708	29	434	85	11,275
	East Coast, . . . . .							2	600	25	180	27	780
	Orkney and Shetland, . . . . .							13	1,686	15	222	28	1,908
	West Coast, . . . . .												
	Grand Totals for 1912, . . . . .	34	100,500	2	1,975	22	6,158	47	4,994	69	836	140	13,963
	Grand Totals for 1911, . . . . .	67	185,390	1	2,100	4	530	39	3,727	87	1,036	131	7,393
	Increase in 1912, . . . . .	33	84,890	1	125	18	5,628	8	1,267	18	200	9	6,570
	Decrease in 1912, . . . . .											24	78,320

No. I.

Boats and Trawlers constructed within the boundaries of each District in Scotland, distinguishing Class; with Remarks as to any Vessels made for use outside the District or outside Scotland.

TRAWLERS.						TOTAL FISHING BOATS AND TRAWLERS.						REMARKS.	No.
Propelled by Steam.		Propelled by Sails or Motor.		Total.		Propelled by Steam.		Propelled by Sails or Motor.		Total.			
No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.		
.	£	.	£	.	£	.	£	1	130	1	130	Motor boat for Fort William district.	1
.	.	.	.	.	.	.	.	3	390	3	390	2 Motor boats for other districts.	3
2	14,000	.	.	2	14,000	2	14,000	3	210	5	14,210	2 Trawlers for Grimsby.	4
29	176,900	.	.	29	176,900	43	225,900	.	.	43	225,900	2 Trawlers for France, 1 each for Milford Haven, Hartlepool, Buenos Ayres, and Granton. 4 drifters for Buckie, 4 for Lowestoft, 3 for Banff, 1 each for Yarmouth, Cullen, and Montrose.	5
.	.	.	.	.	.	1	2,250	2	70	3	2,320	—	7
.	.	.	.	.	.	5	15,350	32	2,630	37	15,980	1 steamer for Yarmouth and 1 for Aberdeen. 4 motor boats and 28 sailing boats for other districts.	8
.	.	.	.	.	.	5	13,000	26	5,555	31	18,555	10 sail boats for other districts and 10 for Ireland.	9
.	.	.	.	.	.	5	12,500	2	250	7	12,750	Sail boats for other districts.	10
.	.	.	.	.	.	4	10,400	9	1,020	13	11,420	1 sail boat for Barra. 1 motor boat for Mallaig.	11
.	.	.	.	.	.	.	.	3	280	3	280	—	12
.	.	.	.	.	.	.	.	.	.	.	.	—	13
.	.	.	.	.	.	.	.	.	.	.	.	—	14
.	.	.	.	.	.	.	.	4	740	4	740	—	15
31	190,900	.	.	31	190,900	65	293,400	85	11,275	150	302,675	—	16
.	.	.	.	.	.	.	.	11	98	11	98	—	17
.	.	.	.	.	.	.	.	16	682	16	682	—	18
.	.	.	.	.	.	.	.	27	780	27	780	—	19
.	.	.	.	.	.	.	.	5	100	5	100	—	20
.	.	.	.	.	.	.	.	5	65	5	65	—	21
.	.	.	.	.	.	.	.	2	25	2	25	—	22
.	.	.	.	.	.	.	.	7	103	7	103	5 for Loch Carron district.	23
.	.	.	.	.	.	.	.	1	170	1	170	—	24
.	.	.	.	.	.	.	.	3	810	3	810	All motor boats for other districts.	25
.	.	.	.	.	.	.	.	3	403	3	403	For Ballantrae and Greenock districts.	26
2	8,930	.	.	2	8,930	2	8,930	1	205	3	9,135	1 sail and motor boat for Ballantrae district. 1 trawler for England and 1 for Ostend.	27
.	.	1	54	1	54	.	.	2	81	2	81	—	
2	8,930	1	54	3	8,984	2	8,930	29	1,962	31	10,892	—	
31	190,900	.	.	31	190,900	65	293,400	85	11,275	150	302,675	—	
2	8,930	1	54	3	8,984	2	8,930	29	1,962	31	10,892	—	
33	199,830	1	54	34	199,884	67	302,330	141	14,017	208	314,347	—	
32	191,900	.	.	32	191,900	99	377,290	131	7,893	230	384,683	—	
1	7,930	1	54	2	7,984	.	.	10	6,624	.	.	—	
.	.	.	.	.	.	32	74,960	.	.	22	70,336	—	



## APPENDIX G.—

BARREL-MAKING.—RETURN, for the Year 1912, of the Number of Barrels in Scotland, showing the different kinds of Wood used and the methods of

No.	DISTRICTS.	BARRELS AND HALF.							
		Of Ash, Elm, Birch, Alder, &c.		Of Larch.		Of Fir.		Total.	
		Barrels.	Half- Barrels.	Barrels.	Half- Barrels.	Barrels.	Half- Barrels.	Barrels.	Half- Barrels.
<b>EAST COAST.</b>									
1	Eyemouth, . . . . .	.	48	.	.	60,883	6,766	60,883	6,814
2	Leith, . . . . .	.	.	.	.	14,584	23,590	14,584	23,590
3	Anstruther, . . . . .	19,500	12	.	.	19,140	8,520	38,640	8,582
4	Montrose, . . . . .	386	70	.	.	20,276	6,635	20,662	6,705
5	Stonehaven, . . . . .	.	.	.	.	6,250	.	6,250	.
6	Aberdeen, . . . . .	1,118	666	986	.	299,953	212,161	302,057	212,827
7	Peterhead, . . . . .	.	.	.	.	339,664	168,889	339,664	168,889
8	Fraserburgh, . . . . .	.	.	.	.	403,538	141,135	403,538	141,135
9	Banff, . . . . .	.	.	.	.	21,084	9,095	21,084	9,095
10	Buckie, . . . . .	.	.	.	.	47,600	24,500	47,600	24,500
11	Findhorn, . . . . .	.	.	.	.	41,810	28,823	41,810	28,823
12	Cromarty, . . . . .	.	.	.	.	.	.	.	.
13	Helmsdale, . . . . .	.	.	.	.	24,000	4,000	24,000	4,000
14	Lybster, . . . . .	.	.	.	.	840	1,320	840	1,320
15	Wick, . . . . .	.	.	.	.	194,106	120,705	194,106	120,705
	East Coast Totals carried down, . . . . .	21,004	796	986	.	1,493,658	756,139	1,515,648	756,935
<b>Orkney and Shetland.</b>									
16	Orkney, . . . . .	.	.	.	.	22,700	2,400	22,700	2,400
17	Shetland, . . . . .	.	.	.	.	190,580	71,070	190,580	71,070
	Orkney and Shetland } Totals carried down }	.	.	.	.	213,280	73,470	213,280	73,470
<b>WEST COAST.</b>									
18	Stornoway, . . . . .	.	.	.	.	20,616	24,298	20,616	24,298
19	Barra, . . . . .	.	.	.	.	1,136	.	1,136	.
20	Loch Broom, . . . . .	.	.	.	.	500	200	500	200
21	Loch Carron and Skye, . . . . .	.	.	.	.	.	.	.	.
22	Fort-William, . . . . .	.	.	.	.	.	.	.	.
23	Campbeltown, . . . . .	.	.	.	.	.	.	.	.
24	Inveraray, . . . . .	.	.	.	.	.	.	.	.
25	Rothsay, . . . . .	.	.	.	.	.	.	.	.
26	Greenock, . . . . .	.	.	.	.	694	7,296	694	7,296
27	Ballantrae, . . . . .	.	.	.	.	.	.	.	.
	West Coast Totals carried down, . . . . .	.	.	.	.	22,946	31,794	22,946	31,794
<b>Totals brought down</b>									
	East Coast, . . . . .	21,004	796	986	.	1,493,658	756,139	1,515,648	756,935
	Orkney and Shetland, . . . . .	.	.	.	.	213,280	73,470	213,280	73,470
	West Coast, . . . . .	.	.	.	.	22,946	31,794	22,946	31,794
	Grand Totals for 1912, . . . . .	21,004	796	986	.	1,729,884	861,403	1,751,874	862,199
	Grand Totals for 1911, . . . . .	27,288	2,526	502	62	1,661,275	679,677	1,689,065	682,265
	Increase in 1912, . . . . .	.	.	484	.	68,609	181,726	62,809	179,934
	Decrease in 1912, . . . . .	6,284	1,730	.	62	.	.	.	.

No. II.

and the Number of Half-Barrels constructed within the boundaries of each District Hooping adopted ; and of the Number of Quarter-Cran Basket Measures Branded.

BARRELS CONSTRUCTED.						Number of $\frac{1}{4}$ cran measures branded.		DISTRICTS.	No.
Hooped entirely with Wood.		Hooped entirely with Iron.		Hooped partly with Wood and partly with Iron.		Boxes	Baskets		
Barrels.	Half-Barrels.	Barrels.	Half-Barrels.	Barrels.	Half-Barrels.				
.	.	.	.	60,863	6,814	.	.	<b>EAST COAST.</b> Eyemouth. Leith. Anstruther. Montrose. Stonehaven. Aberdeen. Peterhead. Fraserburgh. Banff. Buckie. Findhorn. Cromarty. Helmsdale. Lybster. Wick.	
.	.	.	.	14,584	23,590	.	16,973		2
.	.	.	.	38,640	8,532	.	.		3
.	.	.	.	20,662	6,705	.	1,319		5
.	.	.	.	6,250	.	.	.		5
.	.	.	.	302,057	212,827	.	18,057		7
.	.	.	.	339,664	168,889	.	129		6
.	.	.	.	408,538	141,135	.	1,779		8
.	.	.	.	21,034	9,095	.	.		9
.	.	.	.	47,600	24,500	.	.		10
.	.	.	.	41,810	28,823	.	.		11
.	.	.	.	.	.	.	.		12
.	.	.	.	24,000	4,000	.	.		13
.	.	.	.	840	1,320	.	.		14
.	.	.	.	194,106	120,705	.	5,602		15
.	.	.	.	1,515,648	756,935	.	43,859	{ East Coast Totals carried down.	
.	.	.	.	22,700	2,400	.	.	<b>Orkney and Shetland.</b> Orkney. Shetland.	16
.	.	.	.	190,580	71,070	.	.		17
.	.	.	.	213,280	73,470	.	.	{ Orkney and Shetland Totals carried down.	
.	.	.	.	20,616	24,298	.	26	<b>WEST COAST.</b> Stornoway. Barra. Loch Broom. Loch Carron and Skye. Fort-William. Campbeltown. Inveraray. Rothesay. Greenock. Ballantrae.	18
.	.	.	.	1,136	.	.	.		19
.	.	.	.	500	200	.	6,102		20
.	.	.	.	.	.	.	.		21
.	.	.	.	.	.	.	.		22
.	.	.	.	.	.	.	.		22
.	.	.	.	.	.	.	.		24
.	.	.	.	694	7,296	.	100		25
.	.	.	.	.	.	.	.		26
.	.	.	.	.	.	.	.		27
.	.	.	.	22,946	31,794	.	6,228	{ West Coast Totals carried down.	
.	.	.	.	1,515,648	756,935	.	43,859	<b>Totals brought down</b> East Coast. Orkney and Shetland. West Coast.	
.	.	.	.	213,280	73,470	.	.		
.	.	.	.	22,946	31,794	.	6,228		
.	.	.	.	1,751,874	862,199	.	50,087	Totals for 1912.	
.	.	.	.	1,689,065	682,265	.	43,054	Totals for 1911.	
.	.	.	.	62,809	179,934	.	7,033	Increase in 1912.	
.	.	.	.	.	.	.	.	Decrease in 1912.	

## APPENDIX

REGISTRATION OF FISHING BOATS—RETURN, by Districts, of Fishing  
1883, and Sea Fisheries (Scotland)

No.	DISTRICTS.	Applications to Register.				Certificates	
		First Class.	Second Class.	Third Class.	Total.	First Class.	Second Class.
<b>EAST COAST.</b>							
1	Eyemouth, . . . . .	...	...	...	...	...	...
2	Leith, . . . . .	...	...	...	...	...	...
3	Anstruther, . . . . .	7	3	1	11	7	3
4	Montrose, . . . . .	...	...	...	...	...	...
5	Stonehaven . . . . .	...	...	...	...	...	...
6	Aberdeen, . . . . .	...	...	...	...	...	...
7	Peterhead, . . . . .	...	...	...	...	...	...
8	Fraserburgh, . . . . .	...	...	...	...	...	...
9	Banff, . . . . .	2	7	1	10	2	7
10	Buckie, . . . . .	...	...	...	...	...	...
11	Findhorn, . . . . .	...	...	...	...	...	...
12	Cromarty, . . . . .	...	...	...	...	...	...
13	Helmsdale, . . . . .	...	5	6	11	...	5
14	Lybster, . . . . .	...	...	...	...	...	...
15	Wick, . . . . .	...	...	...	...	...	...
East Coast Totals carried down, . . . . .		9	15	8	32	9	15
<b>Orkney and Shetland.</b>							
16	Orkney, . . . . .	...	...	...	...	...	...
17	Shetland, . . . . .	...	...	...	...	...	...
Orkney and Shetland Totals carried down, . . . . .		...	...	...	...	...	...
<b>WEST COAST.</b>							
18	Stornoway, . . . . .	4	18	17	39	4	18
19	Barra, . . . . .	15	16	11	42	15	16
20	Loch Broom, . . . . .	...	4	2	6	...	4
21	Loch Carron and Skye, . . . . .	1	21	3	25	1	21
22	Fort-William, . . . . .	1	4	11	16	1	4
23	Campbeltown, . . . . .	...	13	2	15	...	13
24	Inveraray, . . . . .	...	14	3	17	...	14
25	Rothesay, . . . . .	2	3	...	5	2	3
26	Greenock, . . . . .	...	10	5	15	...	10
27	Ballantrae, . . . . .	...	21	6	27	...	21
West Coast Totals carried down, . . . . .		23	124	60	207	23	124
Fishery Cruiser "Brenda," . . . . .							
" " "Freya," . . . . .							
" " "Minna," . . . . .							
" " "Norna," . . . . .							
" " "Vigilant," . . . . .							
H.M.S. "Ringdove," . . . . .							
Cruisers' Totals carried down,		...	...	...	...	...	...
<b>Totals brought down.</b>							
East Coast, . . . . .		9	15	8	32	9	15
Orkney and Shetland, . . . . .		...	...	...	...	...	...
West Coast, . . . . .		23	124	60	207	23	124
Cruisers, . . . . .		...	...	...	...	...	...
Grand Totals for 1912, . . . . .		32	139	68	239	32	139
Grand Totals for 1911, . . . . .		35	110	95	240	35	110
Increase in 1912, . . . . .		...	29	...	...	...	29
Decrease in 1912, . . . . .		3	...	27	1	3	...

H.

Boat Proceedings in Scotland in the Year 1912, under Sea Fisheries Acts of 1868 and Amendment Act of 1885.

Issued.		Certificates Examined and Endorsed.				Boats Detained.						No.
Third Class.	Total.	First Class.	Second Class.	Third Class.	Total.	Steam Trawlers.	Other Steam Fishing Vessels.	First Class.	Second Class.	Third Class.	Total.	
...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	7	44	...	51	...	...	...	...	...	...	2
1	11	108	63	10	181	...	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	79	4	...	2	...	85	5
...	...	35	16	14	65	...	...	...	...	...	...	6
...	...	276	132	150	558	...	...	...	...	...	...	7
1	10	73	62	39	174	...	...	...	...	...	...	8
...	...	297	26	24	347	...	...	...	...	...	...	9
...	...	1	6	29	36	...	...	...	...	...	...	10
6	11	27	40	48	115	...	...	...	...	...	...	11
...	...	56	36	24	116	1	...	...	...	...	1	12
...	...	...	...	...	...	...	...	...	...	...	...	13
8	32	880	425	338	1,643	80	4	...	2	...	86	14
...	...	...	...	...	...	...	...	...	...	...	...	15
...	...	...	...	...	...	1	...	...	4	...	5	16
...	...	...	...	...	...	1	...	...	4	...	5	17
17	39	68	340	137	545	...	...	...	...	...	...	18
11	42	57	120	108	285	...	...	6	4	...	10	19
2	6	7	148	177	332	...	...	...	...	...	...	20
3	25	5	133	228	416	...	...	...	...	...	...	21
11	16	5	132	33	220	...	...	...	...	...	...	22
2	15	1	212	41	254	...	...	...	...	...	...	23
3	17	...	152	74	226	...	...	...	...	...	...	24
...	5	2	50	50	102	...	...	...	...	...	...	25
5	15	...	48	65	113	...	...	...	...	...	...	26
6	27	...	227	125	352	...	...	...	...	...	...	27
60	207	145	1,612	1,088	2,845	...	...	6	4	..	10	...
...	...	...	...	...	...	264	10	47	19	1	341	...
...	...	...	...	...	...	113	5	11	2	...	131	...
...	...	...	...	...	...	2	28	121	17	...	168	...
...	...	...	...	...	...	38	12	103	2	...	155	...
...	...	...	...	...	...	...	...	25	27	...	52	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	417	55	307	67	1	847	...
8	32	880	425	338	1,643	80	4	...	2	...	86	...
...	...	...	...	...	...	1	...	...	4	...	5	...
60	207	145	1,612	1,088	2,845	...	...	6	4	...	10	...
...	...	...	...	...	...	417	55	307	67	1	847	...
68	239	1,025	2,037	1,426	4,488	498	59	313	77	1	948	...
95	240	1,076	2,157	1,417	4,650	541	94	279	73	6	993	...
...	...	...	...	9	...	...	...	34	4	...	...	...
27	1	51	120	...	162	43	35	...	...	5	45	...





APPENDIX I.—No. II.

RETURN of the PIERS and HARBOURS Erected or Improved by the FISHERY BOARD for SCOTLAND from 1st January 1883 to 31st December 1912, showing for each undertaking the CONTRIBUTIONS made by the Board, the SUBSCRIPTIONS raised by the Localities (so far as coming within the cognisance of the Board), and the TOTAL EXPENDITURE :—

County.	Pier or Harbour.	Total Contribution by the						Total Expenditure to 31st December 1912.		
		Board.			Locality.			£	s.	d.
		£	s.	d.	£	s.	d.	£	s.	d.
Aberdeen	*Rosehearty .	3,881	10	11	500	0	0	4,381	10	11
	Pennan .	1,000	0	0	615	16	3	1,615	16	3
	Collieston .	5,482	0	7	1,618	4	6	7,100	5	1
	Sandhaven .	738	10	9	300	0	0	1,038	10	9
	Fraserburgh	5,000	0	0	—			5,000	0	0
Argyll .	Carsaig, Mull Waterfoot, Cautyre .	5	17	0	—			5	17	0
	Dunure .	24	0	0	116	14	0	140	14	0
Ayr .	Ballantrae .	462	6	8	500	0	0	962	6	8
	Crovie .	105	0	0	109	14	4	214	14	4
Banff .	*Findochty .	971	16	3	324	12	6	1,296	8	9
	Buckpool .	9,331	8	9	7,500	0	0	16,831	8	9
	Buckie (Cluny)	1,474	18	11	800	0	0	2,274	18	11
	Portknockie	5,000	0	0	—			5,000	0	0
	Whitehills .	6,993	16	0	3,500	0	0	10,493	16	0
	Sandend .	7,315	11	3	3,200	0	0	10,515	11	3
	Cullen .	432	18	4	577	5	0	1,010	3	4
	Macduff .	1,400	0	0	600	0	0	2,000	0	0
Berwick	Coldingham	1,000	0	0	—			1,000	0	0
	St. Monance	3,000	0	0	10,000	0	0	13,000	0	0
Fife .	Pittenweem.	5,839	18	1	2,269	0	0	8,108	18	1
	St. Andrews	4,450	0	0	1,809	19	6	6,259	19	6
	Cellardyke .	4,170	2	1	1,339	5	8	5,509	7	9
	Auchmithie .	1,300	0	0	512	8	4	1,812	8	4
Forfar .	Broadford, Skye .	4,125	0	0	1,125	0	0	5,250	0	0
Inverness	Stonehaven	7,875	0	0	2,625	0	0	10,500	0	0
	Greenshaven	2,900	0	0	—			2,900	0	0
Northumberland	Craster .	319	16	1	600	0	0	919	16	1
	Nairn .	1,000	0	0	3,000	0	0	4,000	0	0
Orkney and Shetland	Nairn .	5,587	10	0	1,862	10	0	7,450	0	0
	†Whitehall, Stronsay .	1,102	0	10	413	0	0	1,515	0	10
Ross & Cromarty .	Balintore .	2,944	8	2	1,482	0	0	4,426	8	2
	Rockfield .	5,805	13	0	1,935	4	5	7,740	17	5
	Ness, Lewis	10	0	0	5	0	0	15	0	0
	Cromarty .	8,072	6	7	3,000	0	0	11,072	6	7
	Avoch .	300	0	0	137	13	9	437	13	9
Sutherland .	Portnacon .	1,400	0	0	1,008	13	10	2,408	13	10
		900	0	0	300	0	0	1,200	0	0
		111,721	10	3	53,687	2	1	165,408	12	4

\* These harbours were begun by the old Board, but the whole of the payments made towards the works are now given.  
 † The grant to this harbour has not yet been wholly expended.  
 Grants have also been provisionally made to Avoch, Buckie, Findochty, and Dunure, amounting in all to £2,800.

APPENDIX I.—No. III.  
 BRAND FEES.—ACCOUNT OF THE BRAND FEE REVENUE, THE COST OF COLLECTION, THE SURPLUS, AND THE EXPENDITURE,  
 during the period from 1881 to 1911-12.

Year of Collection.	Total Proceeds of Brand Fees.	Estimated Cost of Collection.*	Surplus or Deficit.	Year in which Surplus Voted.	Amount Voted.	How Disposed of.				Transferred to General Harbour Fund.†
						For Telegraph Guarantees.	For Scientific Investigation.	For Eyemouth Harbour Loan Guarantee.	£ s. d.	
1	2	3	4	5	6	7	8	9	10.	
	£	£	£		£	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
10 Years 1881-90 } †	83,245	56,647	26,598	1882-92	26,860	9,710 14 1	768 1 4	1,824 0 0	14,557 4 7	
10 Years 1891-1900 } †	65,760	49,650	16,110	1892-1902	18,398	3,238 12 3	..	2,895 6 11	12,264 0 10	
1901	6,423	5,096	1,327	1902-03	1,327	..	..	460 4 6	866 15 6	
1902	7,259	5,219	2,040	1903-04	2,040	..	..	453 14 6	1,586 5 6	
1903	6,067	5,181	886	1904-05	886	..	..	447 4 6	438 15 6	
1904	8,070	5,443	2,627	1905-06	2,627	..	..	440 14 6	2,186 5 6	
1905	6,582	5,363	1,219	1906-07	1,219	..	..	437 9 6	781 10 6	
1906	5,100	5,487	387	..	..	..	..	..	..	
1907	8,928	5,277	3,651	1908-09	3,651	..	..	421 4 7	3,229 15 5	
1908	7,218	5,419	1,799	1909-10	1,799	..	..	414 14 6	1,384 5 6	
1909	3,857	5,376	1,519	..	..	..	..	..	..	
1910	5,246	5,467	221	..	..	..	..	..	..	
1911	4,455	5,549	1,094	..	..	..	..	..	..	
Total,	218,210	165,174	53,036	..	58,807	12,949 6 4	768 1 4	7,794 13 6	37,294 18 10	

\* For details see Civil Service Estimates (Class II., Vote for Fishery Board for Scotland).  
 † To be spent as required.  
 ‡ This amount was set aside in the year 1891 as a Reserve Fund only to be drawn upon in the event of the Brand Fee Surplus in any particular year being insufficient, after defraying Telegraph Guarantees, to meet the liabilities under the Loan Guarantee. In 1892-93, £235 0s. 2d. was paid from this Fund; in 1898-99, £486, 4s. 6d.; in 1900-01, £473, 4s. 6d.; in 1901-02, £466 14s. 6d., and in 1906-7 the balance, amounting to £163 16s. 4d.  
 † For details of these years, see 19th or previous Annual Reports. † For details of these years, see 26th Annual Report.

APPENDIX K.—No. I.

DAMAGE TO BOATS OR GEAR.—RETURN by Districts of Complaints of damage to Fishing Vessels or their Gear by other Fishing Vessels, made to, and Investigated by, Officers of the FISHERY BOARD, in terms of Section 7 of the Sea Fisheries (Scotland) Amendment Act, 1885, in the Year 1912; and showing the Result in each case.

Date of Alleged Offence.	Nature of Complaint.	Locality and Distance from Shore.	Whether Inside or Outside Territorial Waters.	Steps Taken.	Result.
1912. Aug. 15	EYEMOUTH DISTRICT. Damage to nets of motor boat 'Jeannies,' B.K. 199, by steam drifter 'Violet,' L.H. 183.	7 miles N.E. of the Longstone Light.	Outside.	Interviewed both parties. Damages assessed at £1 14s.	Liability admitted. Payment made in full.
May 21	MONTROSE DISTRICT. Carrying away of lines of boat 'Rose of Sharon,' M.E. 106, by steam trawler 'Sark,' G.W. 25.	16 miles N.W. of Scurdyness.	Do.	Officer investigated case, found trawler liable, and assessed loss at £3.	£2 accepted in settlement of claim.
Sept. 23	Carrying away of lines of boat 'Rapid,' M.E. 232, by steam trawler 'North Breeze,' A. 644.	7 miles S.E. of Tod Head.	Do.	Officer investigated case, found trawler liable, and assessed loss at 12s.	10s. accepted in settlement of claim.
May 31	STONEHAVEN DISTRICT. Carrying away of 2 great-lines belonging to sail boat 'Children's Friend,' A. 162, by steam trawler 'Thistle,' G.W. 2.	50 miles S.E. ½ S. from Aberdeen.	Do.	Officer investigated case, and assessed damage at £5.	Found respondent in fault. Complainer accepted £3 in settlement of claim.



APPENDIX K.—No. I.—*continued.*

Date of Alleged Offence.	Nature of Complaint.	Locality and Distance from Shore.	Whether Inside or Outside Territorial Waters.	Steps Taken.	Result.
1912. April 17	ABERDEEN DISTRICT. Carrying away of 3 great-lines belonging to steam liner 'Chancellor,' A. 423, by steam trawler 'Ocean Princess,' A. 580.	N. by E. from Harrold Sound, Faroe.	Outside.	Officer investigated case, and assessed damage at £7 10s.	Case dropped.
,, 19	Carrying away of 14 great-lines, dan, anchor, light, and rope, belonging to steam liner 'Birda,' A. 269, by steam trawler 'Ulundi,' G. Y. 461.	16 miles N. W. by W. from Myling Head, Faroe.	Do.	Officer investigated case, and assessed damage at £38 17s.	Case dropped.
May 16	Carrying away of 14 great-lines, dan, etc., belonging to steam liner 'Crathie,' A. 350, by trawler 'Norman,' H. 249.	Off Wester-Holm, bearing N. W. $\frac{1}{2}$ W., and Easter Holm bearing N. by W. $\frac{1}{2}$ W.	Do.	Officer investigated case, and assessed damage at £40 4s. 6d.	Case dropped.
June 10	Fouling and destroying of 4 nets, 1 coil of bushrope, etc., of steam drifter 'Guerdon,' K. Y. 283, by trawler 'Fair View,' G. N. 71.	30 miles E. $\frac{1}{2}$ S. from May Island.	Do.	Officer investigated case, and assessed damage at £20 2s. 6d.	Complainer accepted £12 in settlement of claim.
Aug. 19	Fouling and destroying of 17 nets belonging to steam drifter 'Lizzie Hutt,' M. L. 122, by trawler 'Fort-William,' A. 884.	28 to 30 miles E. from St. Abbs Head.	Do.	Officer investigated case, and assessed damage at £33 9s. 6d.	Case dropped.

Date	District	Description of Case	Location	Officer's Report	Outcome
Aug. 9	FRASERBURGH DISTRICT.	Damage to nets of steam drifter 'Clarion,' F.R. 271, by steam trawler 'Ben Dorian,' A. 178.	27 miles E.N.E. from Kinnaird Head.	Officer investigated case, and assessed damage at £4.	Found respondent at fault, and after some correspondence the full amount was paid to complainant through officer.
"		Damage to nets of sail boat 'Vineyard,' F.R. 398, by sail boat 'Annie Wilson,' F.R. 131.	20 miles N.E. from Kinnaird Head.	Officer investigated case, and estimated damage at £10.	Found the main cause of damage was stormy weather and a change of wind.
"		Damage to nets and gear of steam drifter 'Yarmouth,' H. 486, by sail boat 'Vanguard,' B.F. 798.	25 miles E.N.E. from Kinnaird Head.	Officer investigated case.	Do.
"		Damage to nets of sail boat 'Celi Verna,' B.F. 1124, by sail boat 'Ocean Pearl,' B.F. 841.	30 miles E.N.E. from Kinnaird Head.	Do.	Do.
Sept. 17		Damage to nets and gear of sail boat 'Craig Cowan,' F.R. 860, by steam drifter 'Strathfinella,' A. 341.	28 miles E.S.E. from Kinnaird Head.	Officer investigated case, and estimated damage at £16 10s.	Found respondent in fault. Respondents denied liability, through an Insurance Company, and refused to pay.
Feb 21	BUCKIE DISTRICT.	Carrying away of 8 cod nets and coil of rope of boat 'Sweet Home,' B.F. 1498, by trawler 'Croton,' S.D. 6.	8 miles off Ord Head (Caitness)	Officer reported the case to Fishery Board.	All efforts to obtain compensation proved unsuccessful. Case dropped.
"		Carrying away of 2 cod nets and damage to ropes of boat 'Dove,' B.F. 695, by trawler 'Niobe,' S.D. 5.	5 miles off Lybster (Caitness).	Officer reported the case to Fishery Board.	Do.
Feb. 28	FINDHORN DISTRICT.	Damage to cod nets of 'Emblem,' I.N.S. 433, 'Maggie Helen,' I.N.S. 48, 'Teenie Campbell,' I.N.S. 199, 'Brothers,' I.N.S. 519, and 'Troth,' I.N.S. 216, by trawler 'Hibernia,' I.J.M. 182.	15 miles North by East from Lossiemouth.	Officer investigated case. Assessed damage at £22.	Found respondent at fault. Case finally settled by complainers accepting £15 in settlement of claims.

APPENDIX K.—No. 1.—*continued.*

Date of Alleged Offence.	Nature of Complaint.	Locality and Distance from Shore.	Whether Inside or Outside Territorial Waters.	Steps Taken.	Result.
1912 Jan. 24	WICK DISTRICT. Damage of 4 herring nets and 1 coil of bush rope of 'Pessie,' W.K. 605, by steam trawler 'Glenprosen,' G.W. 20.	5 miles E.N.E. of Auskerry, Orkney.	Outside.	Corresponded with the owner of the 'Glenprosen.'	Liability was denied and the case was allowed to drop.
June 21	Damage of 6 nets and carrying away of buoy and buoy rope of 'Mizpah,' W.K. 506, by 6 war vessels.	35 miles E. of Noss Head.	Do.	Nets were surveyed, and complaint was forwarded to the Fishery Board for Scotland.	Claim of £4 13s. 6d. was paid by the Admiralty.
13	SHEPHERD DISTRICT. Damage to nets of S.S. 'Mayflower,' L.K. 491, by steam drifter 'True Friend,' L.T. 423.	2 miles E. from Scord Point, Bressay.	Inside.	Examined members of both crews. Defender ultimately admitted liability.	Assessed damage at £2, which defender agreed to pay, but has not yet done.
18	Damage to nets of 'Kitchener,' L.K. 1065, by steam drifter 'Santora,' Y.H. 837.	St. Magnus Bay, 3 miles W. from Hillswick Light.	About limit.	Heard both parties. Defender admitted liability and offered to repair the nets.	Case was settled by defender getting the damaged nets repaired to complainer's satisfaction. Cost of repairs estimated at £5.
July 17	Damage to nets of 'Morning Star,' L.K. 528, by steam drifter 'Explorator,' L.T. 313.	15 miles S.S.E. from Fair Isle.	Outside.	Examined members of both crews and found defender at fault.	Surveyed damaged gear and assessed damage at £6 10s., which defender paid.

STOKENOWAY DISTRICT.	
Feb. 14	Damage to nets of steam drifter 'Protect,' P.D. 517, by steam trawler 'Duke of Wellington,' H. 388.
Aug. 23	Damage to nets of sailing boat 'Victor,' S.Y. 717, by one of H.M. Destroyers.
"	Damage to nets of sailing boat 'Ocean Bride,' S.Y. 465, by one of H.M. Destroyers.
"	Damage to nets of sailing boat 'Endeavour,' W.K. 93, by one of H.M. Destroyers.
BAREA DISTRICT.	
Feb. 20	Loss and damage of great-lines of boat 'Reul Na Mara,' C.Y. 401, by steam trawler 'City of Edinburgh,' F.D. 185.
March 10	Loss and damage of great-lines of boat 'St. Vincent,' C.Y. 261, by steam trawler 'Hope,' A. 287.
LOCH BROOM DISTRICT.	
Oct. 2	Damage to stern post of boat 'Annie Gordon,' I.N.S. 308, by boat 'Winner,' I.N.S. 2410.
	8 miles N. by W. of the Butt-of-Lewis.
	3 miles off the Chicken Rocks.
	About 3 miles off Holmhead.
	About 3 miles off Holm.
	In the Minch, 5 miles S.E. of the Island of Muldoanich.
	In the Minch 4 miles E.N.E. of Pabby Island.
	Loch Broom, 1/4 mile off Rhue Point.
Outside.	Officer sent complaint to the owners of the trawler at Hull. Estimated damage £15.
Do.	Officer investigated case and found that the boat had not the regulation lights exhibited as required when riding at nets. Estimated damage £4.
Do.	Regulation lights had not been exhibited. Estimated damage £7.
Do.	Regulation lights had not been exhibited. Estimated damage £5 15s.
Do.	Officer investigated case. Damage estimated at £15.
Do.	Officer investigated case. Assessed damage at £7 10s.
Inside.	Officer interviewed respondent, who admitted liability.
Complainers accepted £12.	
Case dismissed.	
Do.	
Do.	
Found respondent not liable. Case dropped.	
Found respondent in fault. Complainer accepted £5 in settlement of claim.	
Case settled by respondent offering to repair damage.	



APPENDIX K.—No. I.—*continued.*

Date of Alleged Offence.	Nature of Complaint.	Locality and Distance from Shore.	Whether Inside or Outside Territorial Waters.	Steps Taken.	Result.
1912. Oct. 4	<p>LOCH BROOM DISTRICT—<i>continued.</i></p> <p>Boat 'Red Jacket,' U. L. 432, run into and damaged by boat 'Pansy,' S. Y. 1233.</p>	Islemartin Bay, Loch Broom, 200 yards from shore.	Inside.	Officer communicated with defender, who denied liability, but did not deny having done damage complained of. Boat surveyed by carpenter and damage assessed at £10.	Complainer to take legal proceedings.
Jan. 15	<p>FORT-WILLIAM DISTRICT.</p> <p>Carrying away of 4 new drift nets belonging to steam drifter 'Energy,' B.F. 324, by steam drifter 'Thistle,' F.R. 236.</p>	Loch Killesport.	Do.	Officer interviewed crew and assessed damage at £12, and forwarded copy of complaint to respondent.	Owing to restricted waters and nets being unmarked, found damage unavoidable. Case allowed to drop.
Feb. 12	<p>Damage to great-lines of steam liner 'Albatross,' F.R. 226, by steam trawler 'Lily Mellings,' F.D. 222.</p>	About 6 miles off W. side of Coll Island.	Outside.	Officer prepared complaint and forwarded it to respondent. Damage assessed at £10.	Respondent denied liability. Evidence insufficient to establish claim. Case allowed to drop.

APPENDIX K.—No. II.

ILLEGAL TRAWLING.—Return of Prosecutions undertaken against the Masters of British and Foreign Trawl Vessels in 1912, showing the Result in each case.

Date of Alleged Offence.	Name, &c., of Person charged.	Name, Letters, and Number of Vessel.	Where Alleged Offence Committed.	Statute or Bye-law Contravened.	Place and Date of Trial.	Result of Trial.	By whom Detected.
1911. Nov. 23	Robert Gove, master.	'Edinburgh,' A. 897.	1·8 miles off Stromness, Vailla Isle.	<i>MASTERS OF</i> Herring Fishery (Scotland) Act, 1889, Section 6. Do.	<i>BRITISH TRAWLERS.</i> Lerwick, Jan. 22, 1912.	Fined £25 or 21 days' imprisonment. Fine paid.	Burra Isle fishermen.
Dec. 6 1912.	Gjert Myhre, master.	'St. George,' G. Y. 83.	Within the scheduled area of Broadbay.	Do.	Stornoway, Jan. 24, 1912.	Fined £80 or 60 days' imprisonment. Fine paid.	Local fishermen.
Mar. 6 ,, 21 1911.	George Elliot, master. James Arthur Mewse, master.	'Lionel,' S. N. 109. 'Loch Carron,' A. 896.	2·3 miles off Cove, Kincardineshire. Moray Firth: 9·5 miles off Sarclett Head.	Do. Fishery Board Byelaws 10 and 14.	Stonehaven, Mar. 27, 1912. Elgin, April 24, 1912.	Fined £30 or 15 days' imprisonment. Fine paid. Fined £50 or 30 days' imprisonment. Went to prison.	Fishery Cruiser 'Freya.' Fishery Cruiser 'Norna.'
Dec. 8 1912.	George Cook, master.	'Elsie,' H. 320.	East Loch Roag.	Herring Fishery (Scotland) Act, 1889, Section 6.	Stornoway, May 22, 1912.	Not proven.	Local fishermen.
May 1 ,, 3 ,, 6	James Saddler, master. Job Emsley, master. Do.	'North Breeze,' A. 644. 'Lord-de-Ramsay,' B. H. 72. Do.	Moray Firth: 5·8 miles off Staxigoe Head. West Loch Roag. Do.	Fishery Board Byelaws 10 and 14. Herring Fishery (Scotland) Act, 1889, Section 6. Do.	Aberdeen, May 23, 1912. Stornoway, May 29, 1912. Do.	Fined £15 or 30 days' imprisonment. Fine paid. Fined £85 or 60 days' imprisonment. Went to prison, then £62 6s. 8d. of fine paid. Fined £85 or 60 days' imprisonment. Fine paid.	Fishery Cruiser 'Freya.' Local fishermen. Do.

APPENDIX K.—No. II.—*continued.*

Date of Alleged Offence.	Name, &c., of Person charged.	Name, Letters, and Number of Vessel.	Where Alleged Offence Committed.	Statute or Bye-law Contravened.	Place and Date of Trial.	Result of Trial.	By whom Detected.
1912. May 8	James Mair, master.	'Victor,' P.D. 75.	1·2 miles off Hevdadale Head, Northmavine, West Loch Roag.	Herring Fishery (Scotland) Act, 1889, Section 6. Do.	Lerwick, June 17, 1912.	Fined £75 or 40 days' imprisonment. Went to	Fishery Cruiser 'Norma.'
"	William Mycroft, master.	'Lord Wolmer,' B.H. 74.	Do.	Do.	Stornoway, July 10, 1912.	Fined £85 or 60 days' imprisonment. Went to	Local fishermen.
"	Do.	Do.	Do.	Do.	Do.	do.	Do.
Jan. 10	William Hadercraft, master.	'Ocean King,' A. 174.	1·4 miles off Fair Isle.	Do.	Lerwick, July 23, 1912.	Fined £100 or 60 days' imprisonment. Went to	Fair Isle fishermen.
June 20	James Willson, master.	'North Star,' A. 172.	1 mile off Fair Isle.	Do.	Do.	Not proven.	Do.
"	Fred Nutten, master.	'Tina Nutten,' A. 383.	1·7 miles from Weimnia Ness, Walls.	Do.	Lerwick, Aug. 7, 1912.	Fined £50 or 30 days' imprisonment. Fine paid.	Fishery Cruiser 'Norma.'
May 23 and 24	Robert Brown, master.	'New Enterprise,' S.N. 32.	Within 3 miles of Ockran Head, Northmavine.	Do.	Lerwick, Aug. 8, 1912.	Not proven.	Northmavine fishermen.
Aug. 4	Frederick Powdrell, master.	'Ant,' A. 308.	Firth of Clyde: 6·9 miles off Corsewall Point.	Do.	Stranraer, Aug. 15, 1912.	Fined £100 or 60 days' imprisonment. Went to	Fishery Cruiser 'Vigilant.'
"	Peter Wanless, master.	'Conductor,' G.N. 21.	2·7 miles off Tod Head.	Do.	Aberdeen, Aug. 22, 1912.	Fined £15 or 20 days' imprisonment. Went to	Fishery Cruiser 'Freya.'
Sept. 6	Charles Wm. Ballard, master.	'Locust,' H. 174.	2·75 miles off Cruden Scours.	Do.	Aberdeen, Sept. 10, 1912.	Fined £20 or 40 days' imprisonment. Fine paid.	Do.
Aug. 10	Alexander Downie, master.	'Excel,' A. 288.	Moray Firth: 15·3 miles from Clyth Ness.	Fishery Board Byelaws 10 and 14.	Wick, Sept. 27, 1912.	Fined £50 or 60 days' imprisonment. Fine paid.	Do.

1912. Aug. 30	William Oldan, master.	'Rosebery,' G.N. 8.	2-25 miles South from Arbroath.	Herring Fishery (Scotland) Act, 1889, Sec. 6.	Dundee. Oct. 3, 1912.	Fined £50 or 30 days' im- prisonment. Fine paid.	Fishery Cruiser 'Brenda.'
Sept. 9	James Chalmers, master.	'Water Lily,' B.A. <sup>2</sup> 468 (sailing).	Luce Bay: about 1-5 miles off New England Bay.	Do.	Stranraer, Oct. 3, 1912.	Fined £10 or 21 days' im- prisonment. Fine paid.	Fishery Cruiser 'Vigilant.'
May 22	James M'Kay, master.	'Drumblair,' A. 130.	0-3 mile off Foula.	Do.	Lerwick, Oct. 7, 1912.	Fined £100 or 60 days' im- prisonment. Went to prison.	Foula fishermen.
June 9	John Main Noble, master.	'Wamba,' A. 326.	Do.	Do.	Do.	Not proven.	Do.
April 28	Frederick Powdrell, master.	'Ant,' A. 308.	Do.	Do.	Lerwick, Nov. 25, 1912.	Fined £100 or 60 days' im- prisonment. Went to prison.	Do.
Nov. 6	James Palmer, master.	'African Prince,' S.N. 224.	0-75 mile off Port Errol.	Do.	Aberdeen, Nov. 25, 1912.	Fined £40 or 40 days' im- prisonment. Went to prison.	Fishery Cruiser 'Freya.'
Oct. 28	Peter Henderson, master.	'Strathmartin,' A. 899.	Moray Firth: 3-5 miles from Noss Head.	Fishery Board Byelaws 10 and 14.	Wick, Nov. 29, 1912.	Fined £40 or 60 days' im- prisonment. Went to prison.	H.M.S. 'Ring- dove.'
Nov. 8	Donald M'Bain Craig, master.	'Lionel,' S.N. 109.	2-4 miles off Girdle- ness.	Herring Fishery (Scotland) Act, 1889, Section 6.	Aberdeen, Dec. 5, 1912.	Fined £20 or 20 days' im- prisonment. Went to prison.	Fishery Cruiser 'Freya.'
,, 8	John Ballard, master.	'Regina,' A. 202.	2-75 miles off Gir- dleness	Do.	Aberdeen, Dec. 19, 1912.	Diet deserted <i>simpliciter</i> .	Do.
Dec. 26	James Reid, master.	'Strathlethen,' A. 340.	0-85 mile off Fair Isle.	Do.	Lerwick, Dec. 27, 1912.	Fined £70 or 40 days' im- prisonment. Fine paid.	Fishery Cruiser 'Norna.'



## APPENDIX K.—No. II.—continued.

Date of Alleged Offence.	Name, &c., of Person charged.	Name, Letters, and Number of Vessel.	Where Alleged Offence Committed.	Statute or Byelaw Contravened.	Place and Date of Trial.	Result of Trial.	By whom Detected.
			<i>PROSECUTION OF</i>	<i>MASTERS OF</i>	<i>FOREIGN</i>	<i>TRAWLERS.</i>	
1911. Dec. 6	Christian Christian- sen, master.	'Croton,' S.D. 6.	Moray Firth: 1·6 miles off Lossiemouth.	Herring Fishery (Scotland) Act, 1889, Sec. 6.	Elgin, Feb. 1, 1912.	Fined £100 or 60 days' im- prisonment. Went to prison.	Lossiemouth fish- ermen.
1912. Jan. 3	Anund Aagetvedt, master.	'Niobe,' S.D. 5.	Moray Firth: 2·75 miles off Helmsdale.	Sea Fisheries Act, 1883, Sec. 7.	Wick, Feb. 14, 1912.	Fined £10 or 60 days' im- prisonment and fish and gear found in vessel confis- cated. Conviction sustained on appeal. Fine paid.	Fishery Cruiser 'Freya.'
,, 31	Christian Kronke, master.	'Norseman,' S.D. 4.	Moray Firth: 2·75 miles of Dunbeath.	Do.	Wick, Feb. 28, 1912.	Not proven. Fine paid.	H.M.S. 'dove.'
May 15	Arne Jacobsen, master.	'Croton,' S.D. 6.	Moray Firth: 2·5 miles off Noss Head.	Do.	Aberdeen, May 18, 1912.	Fined £10 or 40 days' im- prisonment and fish and gear found in vessel forfeited. Fine paid.	Fishery Cruiser 'Norma.'
,, 15	Bjorne Torkelsson, master.	'King Erik,' E. 169.	Moray Firth: 2·75 miles off Noss Head.	Do.	Do.	Do.	Do.
April 24	Kristensen Agust Kristensen, mas- ter.	'Niobe,' S.D. 5.	Moray Firth: 2·6 miles from Halli- man Skerries.	Do.	Aberdeen, June 17, 1912.	Fined £10 or 30 days' im- prisonment and fish and gear found in vessel forfeited. Fine paid.	Fishery Cruiser 'Freya.'
July 18	Bernhard Johan- ssen, master.	'Ejdern,' G.G. 472.	Moray Firth: 2·5 miles off Ulbster Head.	Do.	Aberdeen, July 19, 1912.	Fined £10 or 40 days' im- prisonment and fish and gear found in vessel forfeited. Fine paid.	Do.

APPENDIX K. - No. III.

OFFENCES OTHER THAN ILLEGAL TRAWLING.—Return, for 1912, of Prosecutions undertaken for alleged infringement of (a) the Regulations for the Registering, Lettering, and Numbering of Sea Fishing Boats; (b) the Regulations for the Prevention of Collisions at Sea; (c) the Herring Fishery (Scotland) Act, 1889, Sec. 5, fixing a weekly close time for Herring Fishing on the West Coast of Scotland; and (d) any other offence (other than illegal trawling).

Date of Alleged Offence.	Name, and Designation of Party Charged.	Name, Letters, and Number of Vessel, distinguishing between Trawlers and Fishing Vessels.	Where Alleged Offence Committed.	Nature of Offence.	Place and Date of Trial.	Result of Trial.	By whom Detected.
1911. Dec. 6.	Gjert Myhre, master.	Steam trawler 'St. George,' G. Y. 83.	Broadbay.	Failing to show lights in contravention of Merchant Shipping Act, 1894, Sec. 419.	Stornoway Sheriff Court, Jan. 24th 1912.	Fined £50 or 60 days' imprisonment. Fine paid.	Local fishermen.
1912. Nov. 5.	James Palmer, master.	'African Prince,' S.N. 224.	Off the Coastguard station at Port Errol.	Contravention of the Regulations for the prevention of Collision at Sea.	Aberdeen, Dec. 5th, 1912.	Fined £20 or 40 days' imprisonment. Fine paid.	Fishery Cruiser 'Freya.'

APPENDIX K.—No. IV.

ILLEGAL TRAWLING.—Summary of Prosecutions undertaken during the period 1886-1912 inclusive, showing number of Convictions obtained, Amount of Fines Imposed, &c., &c.

Years.	Number of Prosecutions undertaken.	Number of Convictions obtained.	Number of Verdicts of "Not Guilty."	Number of Verdicts of "Not Proven."	Amount of Fines imposed.	Amount of Fines paid.	Number of Masters who chose the alternation of imprisonment.	Number of Detentions made by means of Board's cruisers.	Number of Detentions made by means of Admiralty vessels.	Number of Detentions made by Fishermen or other persons.
					£ s. d.	£ s. d.				
1886.	7	6	1	...	26 0 0	26 0 0	...	...	...	...
1887.	11	10	1	...	26 5 0	26 5 0	...	...	...	...
1888.	3	3	...	...	35 0 0	25 0 0	...	...	...	...
*1889.	20	16	...	...	117 0 0	107 0 0	1	...	...	...
1890.	36	32	...	...	254 0 0	239 0 0	1	...	...	...
1891.	23	18	3	3	490 0 0	410 0 0	2	...	...	...
1892.	12	9	...	3	215 0 0	210 0 0	1	...	...	...
1893.	11	11	...	...	370 0 0	270 0 0	1	...	...	...
1894.	7	5	...	2	250 0 0	5 0 0	4	...	...	...
1895.	30	24	4	2	467 0 0	410 0 0	2	...	...	...
†1896.	23	20	...	3	950 0 0	445 0 0	7	3	8	12
1897.	20	15	...	5	737 0 0	417 0 0	5	...	11	9
‡1898.	5	4	...	1	102 0 0	17 0 0	2	...	2	3
1899.	17	17	...	...	665 0 0	555 0 0	3	...	1	8
1900.	31	30	...	...	1,705 0 0	1,167 0 0	10	22	2	7
§1901.	26	24	...	2	1,045 0 0	550 0 0	10	17	3	6
1902.	21	18	...	3	927 0 0	502 0 0	7	9	2	10
1903.	25	25	...	...	1,355 0 0	1,011 0 0	6	16	3	8
1904.	33	30	2	...	1,960 0 0	548 15 0	21	23	...	10
1905.	38	34	1	...	2,645 0 0	1,475 13 4	13	27	3	8
1906.	38	35	2	2	2,280 0 0	1,376 13 4	13	33	...	5
1907.	131	122	...	3	4,495 0 0	1,387 19 8	42	74	31	26
1908.	30	29	6	2	2,136 0 0	439 2 6	20	11	3	16
1909.	63	61	1	...	4,738 0 0	1,026 6 8	29	34	3	26
1910.	31	30	...	1	2,005 0 0	543 16 8	18	26	1	4
1911.	53	49	...	1	3,355 0 0	1,176 13 4	30	24	11	18
1912.	36	30	...	5	1,530 0 0	597 6 8	13	20	2	14
	783	707	22	49	34,880 5 0	14,964 12 2	262	347	86	190

\* In 1889 an Act was passed making trawling illegal in territorial waters around the coast of Scotland, excepting in certain areas; previous to that year, prosecutions for trawling could only be undertaken for contraventions of the Board's Byelaws.  
 † Previous to 1896 no record was kept of "Means of Detection." ‡ In summer of 1898 the Board acquired two new cruisers; previous to that they only possessed one. § The Board acquired a fourth new cruiser in December 1900, and a fifth in September 1904, but in October 1904 they disposed of one of the cruisers built in 1898 as being too small to be practically useful. An additional cruiser was commissioned in May, 1909.

## APPENDIX L.

## REPORTS BY THE INSPECTORS OF SEA FISHERIES AND DISTRICT FISHERY OFFICERS.

## I.—INSPECTORS OF SEA FISHERIES.

*General Inspector of Sea Fisheries.*

Notwithstanding frequent interruptions by stormy weather, the various branches of the fisheries were carried on during the year 1912 with a large measure of success. Fishermen in particular benefited greatly owing to the high prices which prevailed.

In the means of capture, the number of resident fishermen shows a decrease of 598 as compared with the previous year. Of this decrease, the East Coast accounts for 236, Orkney and Shetland 143, and the West Coast 219. A number of these men have emigrated, while others, owing to the uncertainty of the inshore fisheries, and the cost and upkeep of boats and gear, have turned their attention to vocations offering steadier employment. To meet the deficiency, upwards of 400 men—drawn from various industries—were necessary for the manning of the craft during the great summer herring fishing season.

In boats, exclusive of trawlers, there was a decrease of 297 as compared with the previous year. To this decrease the East Coast contributed 132, the West Coast 139, and Orkney and Shetland 26. Although the decrease on both the East and West Coasts pertains chiefly to second and third class boats, the disappearance of the large sailing craft is annually becoming more marked. The transition from sail to steam is largely due to the net fishings being prosecuted at a greater offing than formerly. Only three first-class sail boats of over 45 feet of keel were built for Scottish fishermen during the past five years, while no less than 198 steam drifters, at a cost of £417,590, were added to the fleet during the same period.

In the steam drifter fleet there is an increase of 30 vessels. It was not anticipated that the progress which was made with the building of these vessels in recent years could be maintained. Although the number of first-class boats fitted with auxiliary motor power did not come up to expectations, the progress made with the installation into boats of the skiff class has been very satisfactory. During the year, 123 boats, 63 per cent. of which belonged to the West Coast districts, were fitted with motors. In Campbeltown district practically all the boats employed at herring fishing have now been fitted with motor power. For West Coast skiffs, the "Kelvin" motor of 8-10 horse-power is the one most favoured. The cost of this engine is £65, although in the more recently-built skiffs, motors of 15-20 horse-power are being installed. Since the introduction, five years ago, of the motor as a means of propulsion for fishing craft, no less than 356 boats have been supplied with the installation. The value of these boats is returned at £108,033, as compared with £39,513 three years ago.

The number of barrels manufactured was 1,751,000, being an increase of 62,000 as compared with the returns of the previous year. In



consequence of the increase in catch, and the demand which latterly sprung up from Yarmouth, coopers found steady employment. But for the introduction of machinery into this branch of the industry, it would be almost impossible to meet the sudden demands which occasionally arise for empty packages for the reception of the fish. It may be mentioned that, although the wood and workmanship of the barrels manufactured during the past few years have been very satisfactory, manufacturers would be well advised to see that the maximum thickness of stave is maintained. Very much depends on the stability of the package, and it behoves the trade to make every effort in this direction.

Of all the branches of the fishing industry, the great summer herring fishing prosecuted on the East Coast and at Orkney and Shetland, in which 1232 steamers and about 1750 sail boats were employed, is by far the most important. As showing the extent of the industry, it may be mentioned that annually about 55,000 persons are employed therein.

Next in order of importance come trawling, lining, cod net, mackerel, and sprat fishing.

In many respects, the herring fishing season of 1912 differed considerably from former years, particularly as regards its early commencement, the good quality of the fish, high prices, clear markets, and also the good demand on the Continent for the cured article.

With a view to preventing a recurrence of the severe losses sustained in 1911 through the early fishing and the landings of immature fish, which were profitable neither to fishermen, curer, nor buyer, it was agreed upon by the Fishermen's Association at the close of that season that the date of commencement should be the 10th June. This date, however, was not observed. A general start was made on 1st June, although the resolution delayed a number of boats from being fitted out so early.

In the herring trade seldom are two seasons alike, but the old maxim of cold weather and poor herrings was this season upset. The quality of the early herrings caught in June was a decided improvement on that of those landed during the same period in 1911. They were stronger, healthier, and better scaled fish than are usually caught on the East Coast in June.

From the hour they struck the nets until they were in cure, the cold weather contributed materially towards their preservation. In July and August a further improvement in quality was observed, with the result that the landings gave the highest satisfaction. One noticeable feature in connection with the quality was the large proportion of undeveloped fish landed, as compared with former years. Even towards the close of the season, shoals of herrings contained fish which were only partially filled with milt and roe. The fish were caught on the near as well as on the offshore grounds. The appearance of so many of these herrings on the coast during the past two or three seasons has become a matter regarding which various theories have been advanced, but doubtless their landing in such large quantities is almost entirely due to the early commencement of the fishing.

From the very commencement of the season prices manifested an upward tendency, due largely to the good quality, and the shortage in the catch of other countries. In June, the price was as low as 10s. per cran, while the weekly average price on several occasions in August was from 28s. to 32s., and in Shetland it reached 35s. per cran. The average price for the whole of Scotland shows an advance of 4s. 8d. per cran as compared with the previous season.

Owing to the good demand which prevailed on the Continent for

cured herrings, the home markets remained firm throughout the season. In addition to the shortage in the catch and cure of other countries, the high price of meat and other commodities in Germany contributed largely to this end.

The question is invariably asked, how long this good demand is likely to continue. In Germany, it may be remarked that, owing to the scarcity of fodder and the duty on imported feeding stuffs, farmers were obliged to reduce their stocks of store cattle, but with more favourable crops and a reduction of duty, a change may occur at any time. Meat may become cheap, and herrings less of a substitute. On the other hand, we have the Russian markets, through better communication to the inland cities and to Siberia, annually importing more herrings, so that with fair average fishings and good quality, there is every prospect of a continuance of the demand, provided the herrings can be put in the hands of consumers at reasonable prices.

It may be remarked that the season was distinctly a fishermen's year. The catches were more evenly distributed over the fleet than was the case in 1911, consequently the money was better circulated among the various crews. The largest amount grossed by any one steamer was £1750, and the average from these vessels was from £1000 to £1200. The sail boats also enjoyed a season of considerable prosperity, several having earned over £700, while the average was about £500. Motor boats had also a successful season and would average about £750. Hired men, nearly all of whom are now on "share," secured on an average for 13 or 14 weeks' employment more money than they have done for years back. Many returned home with from £30 to £40, and even as high as £60 has been mentioned.

To these figures have to be added the earnings of the vessels employed in East Anglian waters. Altogether 1099 Scottish boats—60 more than in 1911—operated at Yarmouth and Lowestoft. Of these, 797 were steamers, 231 sailers, and 71 motor boats. The landings of these vessels amounted to 677,949 crans, valued at £701,895, being an increase in value of £152,553 as compared with the previous year. The success of this fishing, which surpassed all previous records, not only benefited our English neighbours, but its effects will be felt along the whole North-East Coast. Fishworkers, of whom there are several thousands, coopers, barrel manufacturers, boat builders, and merchants will benefit by the distribution of the money earned in that quarter.

Although the summer herring fishing on the North-East Coast and at Shetland was so prosperous, the boats which worked on the southern grounds from Eyemouth to Aberdeen were only moderately successful. The features of the last two seasons were in direct contrast. In 1911, the weather was warm and fish plentiful but of poor quality. In the landings in Eyemouth district there is a decrease of 61,000 crans. Owing to the small quantity cured, the expenses of curing, in some cases, were as high as 13s. per barrel. Many of the curers finished the season with a deficit.

The Leith district boats operated from the herring centres north and south of the port. Unfortunately, those working in the Berwick district—owing to the failure of the fishing in these waters—made poor earnings, and several who usually prosecute the English fishing did not proceed so far, and lost to a considerable extent the remunerative earnings which resulted there. Most of the fishermen of Anstruther district shared in the success of the fishings at the northern stations. The earnings of the steam drifters varied from £540 to £1570. Notwithstanding the falling-off in the number of sail boats—no less than 30 being removed from the register during the year—in the number of steamers there has been a steady increase.

For the past few years the winter herring fishing prosecuted in the Firth of Forth has been practically a failure. In February and March last small shoals of herrings made their appearance close inshore, where the fishermen were only able to work with set nets. There was a good demand for those landed. The average price was 6s. 4d. per cran in advance of the previous season.

At Montrose and Aberdeen the landings of herrings fell far short of the previous year. At the former station a commencement was not made at fishing until 1st July—almost a month later than in 1911. Fully one-fourth of the season's catch was secured during the first week of August. Owing to the scarcity of herrings on the southern grounds, very few of the stranger crews were attracted to the port, so that nearly all the landings were made by the local craft. Throughout the season the number of boats working from Aberdeen was unusually small, consequently the landings were unequal to the demand. On the usual grounds fished by the Aberdeen boats only small catches were obtained, and owing to the brisk demand the average price was 1s. 5d. per cran in advance of 1911. The quantity of herrings cured gutted was the smallest for many years back. During the year a large business was done in preserving and kippering, the supplies being received from the West Coast in autumn and from Norway in spring. Altogether, close upon 2500 crans were imported from the latter place, about one-half of which was railed from Hull, and a similar quantity was brought in from Yarmouth for redding purposes. In the tinning industry alone, the quantity dealt with shows an increase of 9000 crans as compared with 1907, and of 4000 as compared with last year.

Although trials were made of the herring fishing at Peterhead and Fraserburgh towards the end of May, a general commencement was not made until 1st June. To avoid a repetition of the losses sustained in 1911, through the landing of immature fish, a proposal was made to establish a close time, but it was not adopted. Fortunately, the herrings were of better quality than in 1911, and a good demand prevailed. At the former place, the season closed with a total of close upon 200,000 crans. In consequence of the high price, which was 4s. 9d. per cran in advance of the previous season, the results to the fishermen were most gratifying. The average earnings of the steamers, of which there were 145, were close upon £1000, while those of the sail boats, which numbered 190, were about half this amount. Favourable weather and the nearness of the fishing grounds contributed greatly to the success of the latter. One of the chief factors in contributing to the general prosperity of the port was the remarkable success of the steamers and sailers employed at the English herring fishing.

At Fraserburgh the season was also one of general prosperity, in which all classes of the community shared. The landings at this station were 7379 crans and £48,000 in value in excess of the previous year. At the commencement of the season in May, the sail boats were handicapped for want of hired men—a sufficient number not being forward for so early a commencement. Breezy weather throughout the season was favourable to the sail boats, with the result that their average on several days exceeded that of the steamers. Their average earnings were far ahead of any previous season.

An early commencement was made at the herring fishing by a small fleet of boats working from Macduff and other stations in the upper reaches of the Firth, but their success fell far short of the preceding year. The bulk of the catch was brought in by vessels visiting their homes for the week-end to replenish their stores. The most persevering fishermen belonging to the Moray Firth district prosecuted the fish-



ing at the various great centres on the coast, where their operations proved highly remunerative.

The herring fishing at Wick was the most successful on record, the landings exceeding those of the previous year by 5236 crans in quantity and £42,716 in value. The features of the season were the regularity with which the fishing was prosecuted, and the keen demand which prevailed. With few exceptions, the fishermen's earnings were of a substantial character. As a fishing centre, Wick, with its improved harbour accommodation, and its nearness to some of the best fishing grounds, has within recent years been greatly taken advantage of by fishermen and curers.

In Orkney and Shetland the season was one of remarkable prosperity. During the past two years no district on the coast has emerged into prominence more than Orkney. Encouraged by improved harbour accommodation and close proximity to the fishing grounds, fishermen were attracted to the locality, with the result that at Stronsay and Carness large sums of money were expended by curers in erecting curing stations to cope with the landings of an increased fleet. The season at Lerwick was a most profitable one for the fishermen. Up to the end of July many of the crews had earned as much as they had done during the whole of the season of 1911. In August stormy weather set in, with the result that the majority of the fleet returned south. The port of Scalloway, at which so little was done during the past three years, more than doubled its catch as compared with the previous year. At Baltasound, which used to be the principal early station, a decrease in the catch has again to be recorded.

Although the herring fishing prosecuted in the southern section of the Minch shows a slight falling off, at Stornoway the aggregate catch was 35,000 crans in quantity and £65,000 in value ahead of the previous year. Unfortunately, few of the local boats were employed at the winter herring fishing. In December some excellent catches of herrings were obtained in Loch Bracadale, and remunerative prices obtained. Although the great bulk of the earnings went to the stranger fishermen, the natives greatly benefited by the increased catch.

Extremely poor results were obtained at the herring fishing in Loch Broom district, and although large shots of herrings were secured in some of the lochs of Loch Carron and Skye district, they were netted by boats working from Stornoway and Mallaig. For the past few years various attempts have been made to make Oban a fishing centre for both winter and summer herring fishing, but on each occasion with only moderate success.

A small fleet of boats also operated from Mallaig during May and June, but the results were unsatisfactory.

After a lapse of several years, the fisheries of the Clyde districts, particularly those of Campbeltown and Ballantrae, show signs of revival. The outstanding feature of the year was the large number of boats fitted with motor auxiliary power.

The fishermen who are prosecuting the herring fishing in boats which are not fitted with motors find that it is impossible for them to maintain a satisfactory position.

The herring fishing at Campbeltown was an exceptionally profitable one for the fishermen, and the quantity landed was higher than for several years back. The value of the catch was £36,431, as against £23,578 in 1911. The quality was also above the average, and as there was a keen demand for curing, high prices were realised. The average price for the year was 7s. per cran in advance of 1911. The bulk of the herrings were caught with the seine net, and delivered to buying



steamers, which follow the fleet to sea. The most successful pair of seiners (10 men) grossed £2100. In the earnings of the fleet, however, there was considerable range, and although many crews did exceptionally well, others met with only moderate success. On several occasions in September and October the shoals encountered were so heavy that the nets gave way with the weight of the fish. Drift net fishing was carried on by a few boats, but the results were not satisfactory.

When compared with the figures of 1911, the results of the fisheries of Ballantrae district are very encouraging. The feature of the year was the high price paid for fresh herrings. For the period from May to September the total landings amounted to over 4000 crans, and the average price was 32s. 2d. per cran. Of 11,160 crans landed during the winter season, about one-third was taken on the Ballantrae Banks, where in 1911 practically none was obtained. The principal fishing grounds during the season were in Loch Ryan and neighbourhood.

Unfortunately, the fishings of Inveraray and Rothesay districts show a considerable falling off as compared with the previous year.

Towards the end of March several boats belonging to Tarbert operated on the grounds in the vicinity of Skipness, and, although fair catches were obtained, the quality was poor and the prices unremunerative. The regular fleet was, however, at work in May, but as the shoals were not located in Loch Fyne, the majority of the boats proceeded to other districts. In July and August the herrings were of good quality, but in October shoals of immature herrings made their appearance. Prices during the season varied from 2s. 6d. to 65s. per cran, the average being 19s. 10d., compared with 14s. 3d. in 1911.

Decreases in the catch and value of the fisheries of Rothesay district have again to be recorded. In the means of capture there is also a falling off, but it is gratifying to note that several of the old boats written off the register are being replaced by larger and better craft. There are now 16 motor-boats belonging to the district employed in the fisheries.

Compared with 1911, the results of the fisheries of Greenock district show an increase of close on £4000, mainly due to a better catch of herrings. The returns of fish caught by lines are practically the same as in 1911, but the landings by trawlers show a considerable falling off, there being only 22 arrivals, compared with 40 in the preceding year. Although Glasgow is an excellent market for white fish—large quantities being despatched thither from Aberdeen and Granton—as a fishing centre it is too far removed from the best fishing grounds. It is gratifying to state that in connection with the fisheries of the Clyde there were no lives lost during the year, and the loss of and damage to fishing boats and gear was under the average of previous seasons.

In the trawling branch of the industry there were 306 steam vessels employed, as compared with 311 in 1911. The total quantity and value of fish landed (including the catch of foreign vessels) amounted to 2,392,692 cwts. and £1,232,193, being a decrease of 46,416 cwts., but an increase of £118,373 as compared with 1911. To a large extent the decrease in the catch was due to stormy weather, a scarcity of certain kinds of fish on the banks, and also to the coal strike in the spring, which, creating a scarcity of fuel, delayed the vessels from making their regular trips to sea. The two great features of the year in connection with the industry were the increased landings by foreign vessels and the high prices. The landings of foreign trawlers exceeded those of the previous year by 114,882 cwts. in quantity and £46,373 in value. Altogether, there were 72 more arrivals than in 1911. Prior to 1911 a number of trawlers were usually laid

up in August owing to the poor prices obtained for the fish, but the demand which has recently set in for white fish of all kinds in the home and foreign markets was such that for the past two seasons all the vessels have been fully employed.

The average price for all kinds of trawled fish was 10s. 4d. per cwt., as against 9s. 2d. in 1911. Although various fishing grounds off the coast of Scotland and the Orkney and Shetland islands were operated on, no new banks were discovered. The great bulk of the catch was obtained from the North Sea, and the kind most in evidence was haddock. The best catches were made in March and April, and again in November and December. The most successful vessel for the year grossed about £7000.

In several of the districts from Eyemouth to Aberdeen small line fishing was prosecuted with poor results. On the Eyemouth grounds haddocks were particularly scarce. With an increase in the motor craft, which has given a fillip to the white fishing in the Montrose district, the landings there show an increase of about 4000 cwts. Although at Peterhead and Fraserburgh the landings show little variation, the success which attended this method of fishing in the upper reaches of the Moray Firth from Macduff to Wick was greater than for many years back.

From the size of the catches made, haddocks appear to have returned to their former haunts. On the other hand, the landings in Shetland, where the fishermen had benefited so largely from this fishing, show a decrease as compared with the previous year of 30 per cent. in quantity and value.

The steamers employed in the line fishing industry from Aberdeen were only moderately successful. Stormy weather, and the prevalence of dogfish on the western grounds, greatly interfered with operations. Besides the usual fleet of liners fishing from the port, 22 trawlers were fitted out in May with lines, but the venture was unsuccessful. The most successful line fishing vessel earned £5000, but several did not clear expenses.

On the West Coast, line fishing from open boats shows a still further decline. In Stornoway district about a score of boats usually employed in lining were this season unlaunched, owing to the scarcity of white fish in the Minch and off the Butt of Lewis. The bulk of the fish now landed at Stornoway is taken by steamers which devote part of their time to herring fishing as well as to lining. The same remarks apply to the steam liners prosecuting the fishing from Mallaig to Oban. At the joint fishings, a number of crews made remarkably good earnings. A Stranraer, a fleet of seven East Coast steamers prosecuted the line fishing, six of which were almost constantly employed, as against two in 1911, and three in 1910. Their earnings ranged from £255 to £748.

Practically the same quantity of mackerel was landed as in 1911, but in value there is a decrease of over £1000. Of the total quantity landed, the East Coast accounts for 27 per cent., Orkney and Shetland for 16, and the West Coast 57 per cent.

Various attempts have been made to develop a mackerel fishing industry within the last few years by private firms, but in every instance these attempts have had to be given up, as the results were unremunerative. The appearance of the fish is very uncertain. It is apparent that the fishing can only be carried on as an adjunct to the herring fishing. The results in Loch Carron and Skye district, where in 1906 and 1907 the fishing was so successfully prosecuted, show a considerable falling off. Here the fishermen had fitted out with nets specially adapted for this fishing, and other provision had been made for the

development of the industry, but in spite of these preparations their efforts were attended with no better results than before. For several seasons back shoals of mackerel have made their appearance in Loch Fyne, but the fishing has not been prosecuted to any great extent. Last year the fish were unfortunately of mixed quality, and the prices ranged from 1s. 6d. to 8s. per cwt. The whole of the catch, which amounted to 3000 cwts., taken in these waters, was despatched to market in a fresh state. The quantity cured for the American market was about 2000 barrels, being the largest quantity cured for many years back. Of this total, about three-fourths were cured at Stornoway.

Cod net fishing was prosecuted from practically all the districts bordering on the Moray Firth from Banff to Wick with a considerable amount of success. The total landings amounted to upwards of 66,000 cwts., valued at £24,000, as compared with 32,000 cwts. and £13,900 during the previous year. Although the landings in 1912 show a considerable increase on the previous year, the individual catches were not so large as in 1910. The principal fishing banks were from 4 to 8 miles off Tarbet Ness and Helmsdale. The best catches were obtained in breezy weather and in cloudy waters. Notwithstanding the large quantities which were frequently landed—particularly at a time when the markets were well stocked with trawl fish—remunerative prices were obtained. The average price last year was 7s. 5d. per cwt., while in 1911 it was 8s. 1d. The bulk of the catch was despatched in a fresh state to the southern markets—Glasgow and London principally—but an appreciable quantity was sent to Shetland to be sundried, and to Aberdeen to be dried and smoked.

The sprat fishing, which in 1910 and 1911 showed signs of improvement, again fell off. The total quantity landed was 5597 cwts., as compared with 35,875 cwts. in 1911. The sprat has always been a very uncertain visitor to our coast, and the landings made last season in the Firths of Forth, Tay, and Inverness were the lowest for many years back.

JOHN SKINNER,

*General Inspector of Sea Fisheries.*

FISHERY BOARD FOR SCOTLAND,

EDINBURGH, 22nd February, 1913.

*Assistant Inspector of Sea Fisheries.*

In the Northern division of Scotland, from Oban to Stornoway on the West Coast, and from Buckie to Shetland on the East, the various fisheries were prosecuted with most encouraging success in 1912. There was a good demand for all kinds of fish, especially for herrings, and prices ruled high. Contrasted with the preceding year, the districts of Stornoway, Wick, Orkney, and Shetland all exhibit a substantial increase in the quantity and value of herrings landed. In Barra district there was a considerable decrease, but the high prices obtained compensated for the shortage. With a few exceptions, the line fisheries of the various districts were more productive than usual, and much better results were obtained at cod net fishing in the Moray Firth than in the preceding year. Nearly all the fishermen belonging to the principal places in the Moray Firth continue to devote the whole of their time to herring fishing on the Scottish, English, and Irish coasts, and their gross earnings for the year under review were exceedingly high. The quality of the herrings was generally good, and favourable weather conditions throughout the summer months enabled the cured article to



be placed on the Continental markets in good condition. On the West Coast the size and quality of the herrings vary to a greater extent than elsewhere, with the result that prices varied from 8s. to £3 and £4 per cran. The largest and best of these were all cured for exportation, and frequently realised from £5 to £7 per barrel in the Russian markets. The expense and duty on same, however, amount to about £2 per barrel, and are deducted from sale returns.

In Barra district, where the best quality is invariably obtained, the average price to fishermen was 40s. 6d. per cran, Orkney district being the next highest with 28s. per cran. Contrasted with the preceding year, the increased value of the herrings landed in Stornoway district was £65,000, and for the districts of Wick, Orkney, and Shetland £225,700.

The outstanding feature in the means of capture is the continued displacement of sail boats by steam vessels for herring fishing, and small-sized auxiliary motor boats for net, line, and lobster fishing. The districts in which the motor craft is most rapidly coming into use are Loch Carron, Fort-William, Wick, and Shetland. Those belonging to Loch Carron are, on the whole, the largest and most suitable for herring fishing. Those belonging to the other districts are principally employed in line and lobster fishing, and the results were such as should lead to a further increase in motor craft.

As yet there are only two steam drifters belonging to the West Coast districts, and 27 to the three Northern districts of Shetland, Wick, and Helmsdale. In the Moray Firth districts of Banff, Buckie, and Findhorn the increase for the year was 22, which brings the total for the three districts to 462, valued at £1,121,650. The extent of netting alone required for these vessels is 39,891,300 square yards, valued at £127,690. Over 4000 men are required to work these vessels, and during the greater part of the year they engaged in the various herring fishings. Their gross aggregate earnings from herring fishing alone is estimated at £840,000. In addition to the steam fleet, there are still 488 large sail boats belonging to the three districts engaged in herring fishing, chiefly during the summer months, and their earnings ranged from £300 to £800 per boat. A considerable number of sail boats also engaged in the English and Irish fishings, and did remarkably well.

On the West Coast, as on the East, the tendency is to fish from centres, and in better-equipped craft. The principal landing-places are Stornoway, Castlebay, and Mallaig. The two first noted being so far removed from the mainland, the bulk of the herrings and a portion of the white fish are cured—the former for the Continental, American, and home markets, and the latter chiefly for Spain. Not until after the extension of the N.B. Railway to the Minch was Mallaig known as a fishing station. It has now become an important landing and fishing centre, chiefly for East Coast fishermen. A number of these have made it their permanent place of residence, and others, including West Coast men, will do so when improved housing accommodation is provided.

During the year 45,000 cwts. of white fish, and a much larger quantity of herrings, were landed at Mallaig. The bulk of the former and a large portion of the latter were despatched to the Southern markets in a fresh condition, and high prices were usually realised for them. Although not so favourably situated, Oban is also receiving a share of the various kinds of fish caught in the South Minch. During the year over 16,000 cwts. of white fish, and a similar quantity of herrings, were landed, the bulk of which was forwarded to the inland markets in a fresh state. The principal kinds of fish caught in these waters are conger eel, skate, and cod, and the average price per cwt. to fishermen was 5s. 4d., 5s. 9d., and 6s. 9d. respectively. Ling averaged



8s. 3d. per cwt., and haddocks 9s. 10d. Of the total white fish landed, 5800 cwts. were brought in by trawlers.

In Barra district herring fishing was, as usual, commenced on the 10th May, and continued throughout the summer months, chiefly by district crews. In the number of East Coast craft engaged there was a marked decrease, and by the beginning of June these had nearly all left for the East Coast and Shetland, which partly accounts for a shortage in the catch of 15,137 crans as compared with the preceding year. On the whole, the fishing was light, but the quality was exceptionally good, and the average price for June and July was 43s. 3d. per cran. Several steam drifters who fished in the Minch till the middle of July grossed from £1200 to £1600. The East Coast sail crews who remained till the close of July averaged £486, and the earnings of 18 large local boats ranged from £350 to £520. One small-sized motor boat grossed £467, as compared with £200 to £400 for sail boats of a similar size. A number of district crews engaged in line fishing during the spring months met with more than ordinary success. Ling averaged 6s. 6d. per cwt., and cod 4s. 9d. The value of the district shell fisheries was about the same as in 1911. About 100,000 lobsters were landed, at an average price of 10½d. each.

In Loch Carron and Skye district the white-fish fisheries are of so little importance that a very small portion of the catch can be spared for the inland markets. On an average, the annual value of the catch amounts to between £3000 and £4000. Lobsters are fairly plentiful on the west side of Skye, and over 50,000 of these were placed on the market at 1s. each. More or less herrings were accounted for monthly, and from July to the close of December good results were obtained. Dense shoals of herrings of excellent quality were discovered in several of the Skye lochs—notably Loch Bracadale—and takes of over 100 crans were frequently caught. The district sail craft secured a fair share of the catch. Sail boats from the East Coast also did very well, but the steam vessels had the largest share. Contrasted with the preceding year, the district returns exhibit a considerable decrease, which is accounted for by a much larger portion of the catch than hitherto being landed at Stornoway and Mallaig. An interesting feature in connection with the unexpected appearance of such a body of fish was their unusually large size and excellent quality. In the early part of the season they resembled those caught at Barra and Scalpay, Harris, in June, and by the middle of November they were fully developed with milt and roe, and had commenced to spawn.

As in the preceding year, the Loch Broom district herring fishing was a failure. Preparations were again made for curing on an extensive scale, and during part of September and October the district fleet, supplemented by stranger crews, occasionally secured fair takes of superior quality, but the catch for the season did not exceed 3000 crans, as compared with 50,000 crans in 1908. A number of district crews engaged in cod net fishing from Gairloch during the early months of the year, and landed a total of 8109 cwts., at an average price of 4s. 3d. per cwt. A similar quantity of line fish was caught, being all the white fish accounted for in the district. In the value of shellfish, chiefly lobsters, there was a slight decrease. Of lobsters, about 70,000 were caught, which realised on an average 1s. each.

Not for a number of years has the herring fishing in Stornoway district proved so remunerative to fishermen and others connected with the industry. In general, the quality was good, and prices ruled high. For the year the average was 26s. per cran, against 19s. per cran in 1911. In the quantity landed there was an increase of 45,000 crans. The outstanding feature of the fishing was the success obtained during

the summer months by a comparatively small fleet. For July and August alone 27,367 crans were accounted for, at an average price of 34s. per cran., as compared with 16s. per cran for 16,963 crans caught during the first quarter of the year.

A small portion of the catch was kippered, and for these there was a good demand in the English markets. As usual, the bulk of the catch was cured for exportation to the Continent and America. In the early part of the year the poorer class of fish generally sold on the spot at from 20s. to 23s. per barrel. As the season advanced, and the quality improved, prices gradually rose to 45s. per barrel for large, 35s. for medium, and 30s. for mattie.

Over 80,000 cwts. of various kinds of white fish and mackerel were landed in the district. About one-fourth of these consisted of ling, at an average price of 6s. 6d. per cwt. Cod averaged 5s. 6d., haddocks 7s. 5d., conger eel 7s., skate 3s. 4d., saithe 2s. 8d., and mackerel 2s. A small portion of the ling, cod, and saithe was cured for exportation. Small lots were occasionally forwarded to the mainland, but the bulk of the catch was consumed by the islanders.

In Shetland district the summer herring fishing was prosecuted with good success from the beginning of May to the close of July. It failed in the first week in August; thereafter the fleet rapidly dispersed for the East Coast and English stations. In the preceding year the fishing was most successful in June, a partial failure in July, and a success in August. To fishermen the average price was 26s. 4d. per cran, being an increase of fully 5s. per cran on the year's catch of 398,000 crans. The catching and curing power was stronger than hitherto. The number of steam drifters engaged during the busiest part of the season varied from 439 to 516, sail boats 170 to 200, and motor boats 3 to 6. Of the season's catch, 87.8 per cent. was landed by steam, 12.00 by sail, and 0.2 by motor. Nearly all the leading Scottish fish-curing firms are now established at Lerwick on stations constructed by themselves at an expenditure of from £1000 to £3000. Two of these firms have also erected extensive factories in which over 138,000 barrels and 37,500 half-barrels were made during the year. Of the season's catch, 18,000 crans were landed at Baltasound, as compared with 22,000 crans in 1911. Efforts were again made with indifferent success to revive this early-established station, where so much valuable property is going to waste. Boats were engaged to fish from Baltasound during May and June at a fixed rate of from 12s. to 17s. per cran, with from £10 to £20 bounty. Much higher prices were, however, realised by unengaged boats fishing from Lerwick, and it is not expected that fishermen will again readily fish at fixed rates.

Here, as elsewhere, the tendency is for concentration of the industry, and the number of out-stations is gradually being reduced. Small fleets of district sail boats operated from Whalsay, Sandwick, and Scalloway, and in the early part of the season, when herrings were plentiful on the inshore grounds, good results were obtained. Later on they were less successful, and their earnings for the season varied from £300 to £500 per boat. The Scottish sail boats fishing from Lerwick met with similar success. The steam vessels got oftener to sea, and fished remarkably well, especially during the month of July, when the herrings were at the greatest distance from land. In general, their earnings ranged from £900 to £1000, several grossed from £1400 to £1700, and several companies averaged from £1150 to £1200 per vessel.

Of the season's catch, over 477,000 barrels were cured for exportation, 8000 crans kippered for the home markets, and 6000 crans freshed, chiefly to Hamburg. From the beginning to the close of the season



there was an excellent demand for the cured article, and prices for same ruled high. Throughout the quality was good, and in no past season was there such a large portion of the catch cured as matjes, chiefly for the Russian market. These consisted of young, well-developed fish, with no milt or roe, and great care has to be given to the cure. Wherever possible, the best Cheshire salt only is used, and in such sparing quantities that by the second day it is all dissolved. To ensure that the brine is a certain strength, testers are freely used, and if it is found to be below the desired strength the deficiency is rectified so that the fish may arrive at their destination in good condition.

The district white fisheries, on which so many of the local fishermen wholly depend, were less productive than in the preceding year, which is accounted for by the partial failure of the haddock fishing all over the district. Fishermen and others intimately acquainted with the district attribute the failure to the absence of the organisms on which the haddock subsists. Fair success was obtained at great line fishing during the spring months. Large quantities of saithe and cod were brought in by the herring fleet, and although the value of the white fish exhibits a considerable decrease, the quantity of all kinds accounted for is about the same as in the preceding year.

Rapid progress is being made with the development of the herring fishing industry in Orkney district. Ten additional curing stations were constructed by the beginning of May, and at the close of the year others were in course of construction. The largest of these cost from £600 to £1200. Stronsay continues to be the most convenient centre to fish from, and occasionally more boats came to it than could be accommodated. To meet this, arrangements are being made to extend the existing piers, and to deepen the channel, at an estimated cost of £20,000. Being situated midway between the Aberdeenshire coast and Shetland, the number of arrivals varies to a greater extent than elsewhere. At no period of the season had the fleet far to go to sea, and the catch was landed in good condition. Contrasted with the preceding year, there was an increase in the catch of 40,844 crans and of £84,556 in value. The number of steam vessels engaged varied from 100 to 300, sail 60 to 100, and motor 4 to 6.

Of the season's catch, 187,200 barrels were cured for exportation, and 4535 crans freshed to Hamburg, this being the first occasion on which herrings were exported from Orkney in a fresh condition. In the early part of the season a much larger portion of the catch than ordinarily was exported as matjes. The herrings caught on the Orkney grounds differ from those caught in Shetland waters. In general, they are a shorter fish, and develop the milt and roe at an earlier stage, after which they cannot be placed on the market as Matjes. In other respects they are equally good, and usually sell to the best advantage in the German markets.

The district white fisheries vary little annually, and were engaged in with ordinary success. In the quantity of cod landed in a partially-cured state by Faroe sail vessels and trawlers there was a considerable decrease, which is accounted for by the increased demand for this class of fish at Aberdeen and English ports. Previous to and for a number of years after the advent of trawling, cod and ling cured for exportation and home use were all sun-dried. This branch of the industry has within recent years developed to such an extraordinary extent that large drying-houses, heated with coke fires, have come into general use. The first of these were erected in Orkney, and Faroe sail vessels, Dutch, English, and Scottish trawlers returning from more northerly waters, made Kirkwall and other places in Orkney their point of call for disposal of partially-cured cod fish,

In Wick district the catch for the summer months was the highest on record by 5000 crans. Contrasted with the preceding year, there was an increase of 11,000 crans. To fishermen, the average price was 26s. 3d. per cran, or almost 5s. per cran of an increase on the season's catch of 170,000 crans. The catching and curing power was stronger than hitherto. Several of the largest fish-curing firms on the Aberdeenshire coast have within the past few years extended their business to Wick, and during the year 1912 cured extensively. For this there are several reasons, the most important being the generally superior quality obtained, and the proximity of the port to the most reliable fishing grounds in Northern waters. From Peterhead southwards to the Northumberland coast the fishing is less reliable, and the quality more variable.

As in the more northerly districts, the best results were obtained during June and July. From the beginning of August the catch was comparatively light, and by the middle of the month the fishing was practically over. As regards the composition of the fleet, there was a greater proportion of sail craft than elsewhere. These generally varied in number from 190 to 230, steam from 140 to 160, and motor from 4 to 6. The district craft consisted of about 60 sail, 14 steam, and 2 motor vessels. The others belonged to various places on the Scottish and English coasts. The earnings of the sail boats fishing steadily from the port were exceptionally high, ranging from £400 to £800, while steamers earned from £900 to £1000 and upwards, and motor boats from £700 to £900. In the quantity and value of white fish recorded there was a substantial increase, which is accounted for by the installation of a number of motors in small boats engaged in small and hand line fishing, chiefly for cod fish.

In the Moray Firth districts of Lybster, Helmsdale, and Cromarty practically nothing was done at herring fishing. A number of small-sized boats belonging to the districts of Findhorn, Buckie, and Banff fished irregularly in the Firth during the early summer months, and occasionally secured fair takes of good herrings, but the bulk of the catch of some 23,000 crans was landed by district craft returning for the week-end. In the Inverness and Beaully Firths the sprat fishing was a failure. Fair quantities of small-sized herrings were caught during the first quarter of the year, but in the last quarter, when the best results are usually obtained, the fishing was a comparative failure.

Throughout the year small-line fishing was engaged in intermittently from the numerous places in the Moray Firth. Considering the small number of men employed, and the irregular manner in which the fishing was prosecuted, the results may be considered as fairly satisfactory. In general, the takes of the small boats, with 2 to 4 of a crew, ranged from 2 to 6 boxes. Several large sail boats, with a wider range of operations, frequently landed takes of from 30 to 40 boxes, chiefly haddocks, for which there was a good demand.

The improved method of fishing for cod with nets was again engaged in during the early months of the year with good success, chiefly from Lossiemouth and Buckie. For the two districts a total of 45,670 cwts., valued at £17,851, was landed. A portion of the catch was cured for exportation, but the bulk was despatched to the inland markets in a fresh condition.

WM. JEFFREY,

*Assistant Inspector of Sea Fisheries.*

FISHERY OFFICE,  
INVERNESS, 4th January 1913.



## II.—EAST COAST,

*Eyemouth District.*

From a financial point of view, the year 1912 was a successful one for fishermen, their combined earnings at the home, English, and Irish herring fishings being considerably above those for 1911. For curers the home fishing was unsuccessful, as most of them incurred losses more or less heavy, though not at all to be compared with those of 1911. The losses were due to the small number of barrels cured, as all the sales were satisfactory, but the profits were not sufficient to cover the expenses. Those curers who went to Yarmouth and Lowestoft had a most successful season, and more than recovered their losses on the home fishing. Line fishing was a partial failure. The district returns exhibit decreases of 30,294 cwts. in quantity, and £2883 in value, from the previous year, of which line fish were responsible for 3502 cwts. and £2352.

In the English section of the district the number of herring boats is yearly becoming less, and owing to the backward state of the line fishing a number of fishermen have left the district. In the Scottish section, several boats of the first class were laid aside as useless, and the tendency is to dispense with all the herring boats which are not suitable for motor engines. One motor boat was purchased, and four others had motor engines installed, while the motor drifter was sold to Ireland. The motor fleet now numbers 36 herring boats and 1 small line boat of 25 feet keel. Orders have also been placed for four other motor engines to be installed, and it is expected that two steam drifters will be added to the fleet. There were slight decreases in netting and lines. Additional landing facilities are to be provided at Berwick. Blyth has added largely to its trawling fleet. About 25 trawlers from North Shields and Blyth were provided with herring trawl-nets, and landed a total of 7340 crans.

For the fifth season in succession the winter herring fishing was a failure, the earnings for the three months being only about £12 per man.

The summer herring fishing, which opened early in May at North Shields and Eyemouth, was attended with very moderate success all through the season, and at no time was there what could be called a good day's fishing. The shortness of the catch was no doubt partly attributable to the fleet numbering about 50 less than in 1911, many of the crews being attracted by the excellent fishing obtained in the North of Scotland and at Shetland. The average catch per boat was about 580 crans, as compared with 640 in 1911. It may be noticed that the features of the last two seasons were in direct contrast. In 1911 the weather was extremely hot, with fish plentiful, but of miserable quality, whereas last season was cold, with fish scarce, but of excellent quality. Possibly the losses of 1911 made the curers over-cautious in beginning the early cure, notwithstanding that the herrings were of good quality and of a keepable nature, and by the end of July only 4100 barrels were in cure, as compared with 32,400 at the same date in the previous year. Owing to the small quantity cured the expenses per barrel were high—in some cases 13s.—so that, notwithstanding good sales, many of the curers finished the season with a debit balance. There was a keen demand for the cured article, and consequently prices for fresh fish advanced sharply. The highest price—65s. per cran—was paid at North Shields, but even for curing prices rose to 38s. The average for the season was

24s. 11d. per cran, as compared with 19s. 5d. in 1911. The total catch for the season was 129,546 crans, as against 180,350 crans for the previous year. There were decreases at all the stations, ranging from 5124 to 16,155 crans at the principal ports. The principal fishing grounds were from 10 to 20 miles off the Farne Islands.

Besides the 6678 barrels of herrings exported direct, 20,809 were sent coastwise, and 3844 by rail to Leith for exportation to the Continent; also 206 by rail to Glasgow for exportation to America.

The haddock fishing was practically a failure, being the lowest on record, with the exception of 1902, when the catch was only 1266 cwts. The highest take was 10 boxes. Prices generally ranged between 11s. and 25s. per box, with an average of 21s. 3d. per cwt., as compared with 18s. 5d. in 1911. For many years this was the principal fishing in the district, and at one time haddocks alone represented 50 per cent. of the total value of white fish. In connection with this fishing, it is of interest to note the change in net and line fishing. Some 20 years ago there was a fleet of over 40 large boats prosecuting this fishing, and in 1896 the quantity landed was 44,123 cwts., as compared with 2032 cwts. last year. Of the total quantity and value of all kinds of white fish landed in 1887, herrings represented 44 per cent. in quantity and 20 per cent. in value. In 1897, the respective percentages were 58 and 42, and in 1907, 93 and 81, while last year they were 95 and 88.

The value of the shell fisheries was slightly below that for 1911. The average earnings were about £30 per man.

Owing to the short herring fishing, large stocks of barrels were left on hand, but the abnormal success at the English autumn fishing created a keen demand, and all available stocks were cleared out, employment for coopers for the present year being thereby ensured.

Boat-builders have for the last few years been dependent on the alterations in boats in which motor engines were installed, and meantime there is no prospect of boat-building.

The few crews who prosecuted the Irish herring fishing did fairly well, with the exception of one drifter, who did not clear expenses. Good success attended those who went to the English autumn fishing. The steam drifters had, on the average, £158, motor boats £141, and sail boats £76 more than in 1911. The average for the fleet of 43 boats was £572, as compared with £377 for the previous year. The loss in netting was estimated at £30 per boat.

There were no casualties during the year.

TABLE showing the Number of Boats employed in each Week during the Herring Fishing Season of 1912, the Highest Shots and Weekly Landings, with Prices obtained for Fresh and Cured Herrings.

Week ended	Number of Boats.			Highest Shots.	Total Catch for Week.	Average Prices for Fresh Herrings.	Average Prices of Cured Herrings.
	Steam	Motor	Sail.				
1912.				<i>Crans.</i>	<i>Crans.</i>	<i>Per Cran.</i>	<i>Per Barrel.</i>
11th May	11	26	23	36	1,406	s. d. 17 5	
18th "	20	28	23	23	1,521	21 6	
25th "	51	31	27	54	3,641	19 8	
1st June	76	31	33	60	6,620	13 0	C. La. Full, 40s. 0d.
8th "	69	33	41	33	4,358	25 8	" Full, 37s. 10d.
15th "	63	34	53	34	5,001	24 0	" Mat. Full, 36s. 2d.
22nd "	60	39	54	36	4,420	26 7	" Mattie, 28s. 4d.
29th "	73	36	65	54	10,314	16 6	" La. Spent, 27s. 4d.
6th July	88	38	64	35	6,826	24 1	" Spent, 24s. 0d.
13th "	83	38	88	47	10,896	16 9	
20th "	91	39	94	40	6,637	22 5	" Branded, 33s. 2d.
27th "	92	40	93	29	6,632	30 7	
3rd Aug.	88	44	124	39	9,951	26 11	" Unbranded, 31s. 3d.
10th "	117	42	133	79	12,193	23 6	
17th "	217	37	105	140	11,377	32 2	
24th "	207	32	114	74	11,930	28 1	
31st "	137	33	125	80	6,528	31 5	
7th Sept.	66	20	137	73	4,006	31 11	

FISHERY OFFICE,  
BERWICK, 9th January 1913.

DAVID ROSIE,  
Fishery Officer.

*Leith District.*

In its principal features the fishing industry showed no marked changes from the results of the preceding year; the trawling industry was successful, the other branches were not. As compared with the preceding year's results, the weight and value of the aggregate catch shows a decrease of 70,119 cwts. and £8796. As is usually the case, nearly 89 per cent. of the district's total landings was contributed by the 75 to 80 steam trawl vessels which worked regularly from Granton. Although several sales, exchanges, and one total loss by wreck took place in the trawl fleet in the course of the year, in number it remained about the same as in 1911, and there is little doubt that the catch and its value would have been as high as in the preceding year—which was the best in its history—but for the fact that the work had two long spells of interruption through strikes and labour disputes which considerably reduced the catch, and tended at the same time to increase the working expenses. The trawling results, therefore, fell off by 60,068 cwts. and £6733 as compared with the preceding year's totals, and the decrease was most apparent in haddocks, soles, and plaice. From 60 to 70 of the trawlers worked principally on the near grounds, making generally about two landings per week, their catches ranging from 20, 60, up to 80 boxes; the remainder of the fleet made weekly voyages, their shots ranging from about 80 up to 450 boxes, the latter being the heaviest of the year. The bulk of the catch was obtained in areas off the May Island, where, in fact, the bulk of the supplies have been secured during many years past without any very apparent decrease. These areas were 5, 10, 20, to 80 miles in the radius N.E. to S.E., and occasionally out to 160 miles. The weekly voyagers worked out to 200 miles and over from the May Island, but towards



the latter half of the year it was noticeable that they were more continuously working on the grounds about 80, 90, 100, to 160 miles N.E. and easterly from Girdleness, Buchan Ness, and Rattray Head, and most of the heavy catches were obtained on these areas. In some past years complaints were frequently heard that the catch contained too great a proportion of very small haddocks and whiting, which did not contribute much to the earnings, but these small fish did not appear so numerous this year, and, in any case, there has grown up in recent years a large demand for small haddocks for the fish-frying shops, which give facilities for the profitable disposal of this class. In general, therefore, the trawling industry was again fairly prosperous, although not quite so successful as in the preceding year.

The herring fishery of the Firth of Forth is not now of much importance as compared with its success of a century ago, or in comparison with the great catches landed at the principal fishing ports of the Kingdom. It is here principally a winter fishing, carried on by some 40 to 60 yawls during the months from January to April. It produced in all 3134 crans, or 57 crans less than in 1911. But it is still on the herrings that the local sail-boat men depend for their principal source of income—on the herrings, that is, which they catch and land at the great Scottish and English fishing centres to which they resort annually. The fishermen who engage in the herring fishing at distant centres now chiefly belong to Cokenzie and Fisherrow, and possess in all about 90 large sailing boats, 7 motor boats, and 5 steamers. The bulk of these were employed in the Berwick district during the summer, and there, unfortunately, the fishing was a failure, and for some reason they did not proceed in such large numbers as usual to the Southern English stations in the autumn, and therefore lost, to a considerable extent, the remunerative earnings which resulted there.

For some few years past good hopes were being built on the produce of the sprat fishery of the Firth of Forth, which had been bringing in a welcome addition to the earnings of the Newhaven men especially. From being a despised and neglected product, the sprat suddenly rose in importance by reason of the fact that it has become, in recent years, a substitute, in preserved form, for the sardine and anchovy. The sprat has always been rather erratic in its movements, coming in great abundance or not at all, and in its usually expected season—winter and early spring—it came not at all in 1912, and this district lost about £2000 in consequence.

The line fishery continues in a languishing and generally unprofitable condition. Its pursuit does not provide a profitable return owing to the scarcity of fish on the nearer grounds, and, as it is, the men engaged in it just manage to supplement the earnings from other sources by a little inshore fishing, principally during the winter and spring.

The shell-fisheries of the district are fairly important, having a value of about £5000 annually, and in point of value are about as productive as any in Scotland. The fishery is carried on principally on the southern shores of the Firth of Forth, and the chief kinds obtained are crabs and clams.

A considerable quantity of partially-cured codfish was brought into Leith in course of the year from Iceland and Faroe by vessels belonging to these islands, and by the regular trading steamers; and supplies of the same kind were also brought from Hull and Grimsby. During the winter, too, frequent consignments of Swedish fresh herrings were delivered at Granton by the regular trading steamers, and supplies of Norwegian herrings came into the district *via* Hull, the bulk of which was kippered and consumed locally.



A total of 222,955 barrels of cured herrings was shipped *via* Leith by the weekly trading steamers in the course of the year, and carried principally to German and Russian ports, the export showing a decrease of nearly 10,000 barrels as compared with the shipment of the preceding year.

Although the weather was generally breezy and unsettled during the summer, and occasionally very stormy in winter, the loss of life at sea in connection with the fishing industry was, fortunately, not as heavy as usual, and the loss in vessels and fishing gear was comparatively light.

Two important schemes for the extension of existing harbours were under consideration at the close of the year. At Leith it is proposed to enclose, for a fishery harbour and other purposes, the area of sea, comprising about 120 acres, lying immediately to the west of Leith Harbour entrance, and adjacent to Newhaven, at an estimated cost of about £200,000 in its first part, but the scheme, it is expected, will be further extended in the course of a few years, and may, in its entirety, cost upwards of £500,000. The other is the construction of a break-water, quays, and other works at Portseaton.

JAMES INGRAM,  
*Fishery Officer.*

FISHERY OFFICE,  
LEITH, 30th January 1913.

*Anstruther District.*

The returns of fish landed show that the fisheries of this district were attended with a fair amount of success during the year 1912. Compared with the previous year, they show a falling-off in quantity, but in value a considerable increase. The falling-off in the catch was entirely due to the less successful summer herring fishing, which showed a shortage of 17,450 cwts. The higher prices that were paid for herrings during the winter season accounted for the increased value. In addition to the local fishings, the district fishermen participated largely in the success of both the summer herring fishing at Northern stations and the autumn herring fishing on the English coast. For the industry in general, the year under review proved one of the most remunerative experienced for a number of years.

For some years the number of sailing boats owned in this district has been gradually falling off, while the number of steam fishing vessels has shown a steady increase. No less than 30 sailing boats were removed from the registry during the year, a considerable number of these being boats of from 50 to 55 feet keel, and a number of old sailing boats that are still on the register were unemployed, difficulty being experienced in finding crews to work this class of boat. Motor engines were installed in five sailing boats, and three steam drifters were added to the district fleet. Of the five motor engines, two were fitted in large and three in small boats. The small motor boats were almost exclusively employed at small-line fishing, and the success which attended this experiment is likely to lead to a further development of the district inshore fishing.

The returns also show a falling-off in the number of resident fishermen, which is chiefly referable to the station of Buckhaven. Fifty years ago about 100 boats were fitted out for herring fishing from this station. The fleet has gradually dwindled, until this year only five boats were employed, and the number of fishermen shows a corresponding decrease. About twenty young fishermen emigrated during

last year to British Columbia, where most of them found employment as labourers, and a few abandoned the fishing for other occupations at home.

Most of the district fishermen were employed at the winter herring fishing, which is usually carried on from January to March. Owing, however, to stormy weather, operations were not commenced till the third week of January. During the first part of the season herrings were obtained in small quantities in the Firth of Forth. In February and March the fishing improved, a considerable quantity of herrings being obtained close inshore by means of anchored nets. The most prolific grounds, however, were from off St. Monans to the May Island. For the season, the catch amounted to 16,762 crans, against 15,512 crans for the corresponding season of the previous year. Throughout the season there was a fair demand for herrings, and satisfactory prices were obtained. The average price was 22s. 4d. per cran, compared with 16s. per cran for the season of 1911. Most of the catch was sent to market in a fresh state, only about 600 crans being cured.

For the second year in succession the summer herring fishing showed a large falling-off. Owing to the success of the fishing at Northern stations fewer crews than usual prosecuted the fishing from this district, and the catch, to a considerable extent, was made up by takes landed by crews returning home for the week-ends. A few crews fished regularly from the district, but there was an absence of herrings on the usual fishing grounds. During August a few good takes were obtained, but the shoal soon disappeared; and the season closed with a total of 5267 crans, compared with 10,253 crans for the season of the preceding year. The herrings landed were, as a rule, of excellent quality, and prices were generally at a high level. Most of the catch was cured for exportation. As already stated, most of the district fishermen shared in the success of the fishing at Northern stations during this season. The earnings of the district steam drifters varied from £540 to £1570 per vessel. The crews of sailing boats had also a successful season, a few of the most fortunate having from £700 to £900 per crew.

Great-line fishing is gradually receiving less attention. The season usually lasts from the beginning of April till the end of May, but owing to the difficulty in obtaining coals, on account of the miners' strike, the steam drifters did not commence operations till two or three weeks later than usual. The season did not prove profitable, the greater part of the earnings being absorbed by working expenses.

Small-line fishing was prosecuted, as usual, from the smaller creeks. The results were fairly satisfactory, especially during the last quarter of the year, when codlings were in abundance. Haddocks, which during the two preceding years had shown an increase, were scarce, and the total catch was about 30 per cent. less than that of the previous year.

At St. Andrews the codling and plaice net fishing was interrupted by stormy weather. The catch was about the same as last year.

The crab and lobster fishing was again attended with satisfactory results. The catch of lobsters was slightly greater than that of last year, but the value was less. Crabs showed an increase both in numbers and value. The quantity of mussels gathered for bait continues to decline. On the other hand, there was a large increase in the quantity of whelks gathered.

The number of crews employed at sparling and sprat fishing on the Tay continues to fall off. The catch showed a slight improvement on that of last year.

The autumn herring fishing on the English coast attracted 104 crews from this district. The season proved a highly profitable one for all



concerned. Herrings were obtained in abundance, and the market continued in a healthy condition. The gross earnings of the district steam drifters varied from £400 to £1320. The earnings of motor boats were from £430 to £600, and sailing boats earned from £160 to £480. The loss of fishing gear was less than usual, but, unfortunately, two men lost their lives at Yarmouth through falling overboard.

Boat-building was practically at a standstill during the year, only three small boats being built in the district. Coopers found fairly regular employment, and, as the stock of barrels at the close of the year was exhausted, steady employment will be ensured for some time. The net factories in the district were fully employed.

The fishery barometer at Cellardyke, which was broken during the year, was replaced by a new instrument. The other barometers in the district are in good order, and all are now in charge of careful observers.

WILLIAM KEIR,  
*Fishery Officer.*

FISHERY OFFICE,  
ANSTRUTHER, 4th January, 1913,

*Montrose District.*

The chief features of the fishing industry in this district during the year 1912 were the failures of the herring and sprat fisheries. The shortage in the former branch, when the catch is compared with that of the previous year, was 8737 crans, and in the latter 3048 crans. Altogether the year's aggregate return of white fish landed reveals the somewhat large decrease in quantity of 52,597 cwts., but in value of only £6055, when contrasted with the returns of the preceding year.

On the face of these figures, it is obvious that the general results were unfortunately very unsatisfactory, and particularly was this the case to fishermen and shore workers.

The most interesting appendix in the district means of capture returns is that pertaining to motor fishing craft. Eight boats were installed with motors during the year, and several others are meanwhile having them fitted in. The popular motor boats in this district are those known as haddock skiffs, or yawls, which vary in length from 40 to 45 feet over all, and usually carry a crew of four men. At the creeks of Johnshaven and Gourdon this style of boat has been doing remarkably well at small-line fishing.

A limited liability company has recently been formed at Johnshaven for the purpose of acquiring motor fishing boats, and the project has already taken practical shape. Only a few of the large first-class boats are suitable for the installation of the powerful motor engines required for them, and the boats of this class which have auxiliary motor power have, so far, not been an unqualified success in some respects. The Alpha and Gardner make of engines have hitherto been the favourites, but other firms are now competing successfully against those types.

As already stated, the herring fishing was, comparatively speaking, a complete failure. A proper commencement was not made at this fishing until the 1st of July (almost a month later than in the previous year, when the results of the June fishing were not advantageous to either curers or fishermen). The few herrings which were caught previous to the first week of July were nearly all matties, for which the demand at that time was limited. The waters from 15 to 80 miles were regularly and assiduously fished, but no shoals of any consequence were struck until the week ending the 3rd of August, when a fine

fishing was obtained on a bank locally called the "Shauld Water," which lies 16 miles south-east from Scurdyness. Fully one-fourth of the whole season's catch was secured during the latter part of the week referred to. On the Saturday alone 23 boats landed at Montrose an average catch of close on 40 crans of herrings of excellent quality, several boats having shots of from 80 to 120 crans. Unfortunately, a gale sprang up during the week-end, and when operations were resumed the herrings had evidently spawned and deserted the bank, as only a few crans of spent fish were caught on it. After this nothing of any importance was done, so the season practically closed. Compared with the previous year, much fewer stranger crews frequented the port, a fact which can be entirely attributed to the scarcity of fish off this coast. The quality of the herrings throughout the season was generally very good, and the demand was always in excess of the supply, with the result that fishermen were well paid for their catches. The season's average price was 23s. 3d. per cran, as compared with 19s. 10d. per cran in 1911. The average earnings of the district crews at the home fishing may be computed at £600 for steam drifters, £250 for motors, and £120 for sailers. Two of the motor boats were idle for a time during the best part of the season through breakdowns in the engines, these accidents accounting for their rather meagre earnings.

The quantity and value of sprats caught in the Tay estuary were only 92 crans, and £23, as against 3140 crans and £1321 for the previous year, which was the most successful for the previous eight years.

Line fishing in the district waters is now almost solely confined to small lines, and during the winter and spring months this method of fishing was actively and regularly prosecuted by about 150 boats when the weather conditions were favourable. The principal creeks from which this fishing is pursued are Gourdon, Johnshaven, Montrose, and Arbroath. It is anticipated that the introduction of motor power into so many skiffs and yawls will give a much-needed fillip to the industry at all these creeks, and inaugurate a fresh era of prosperity. If this hope should be fulfilled it will undoubtedly tend to attract back to the fisheries the younger men, the majority of whom have in recent years evinced little interest in them. The quantity of line-caught fish exceeds that of the previous year by 4093 cwts. This increase is mainly attributable to the increased number of motor boats, but also to the fact that fish were rather more plentiful than in the former year.

The quantity and value of fish landed by trawlers are below those of the preceding year by 15,097 cwts. and £1674. Fewer boats were regularly employed, and fish were not so plentiful as in 1911. Prices, however, were usually higher than in the preceding year, but this benefit was more than counterbalanced by the increased cost of coals, ice, and general stores, which were fully 25 per cent. dearer than in the previous year. Operations are now almost exclusively carried on from Dundee, the Montrose boat having been working from Aberdeen at trawling and lining. Several Granton and Glasgow trawlers, however, frequently, during the summer and autumn, land their mid-week shots at Montrose, whence they are all sent direct to market. The favourite fishing grounds of the district trawlers are those bearing from 20 to 70 miles S.E. and E.N.E. from the Bell Rock. The average catch per arrival was 51.50 cwts., and the average value about £31, as compared with 51 cwts. and £26 in 1911.

The shell-fish returns show little variation from those of the preceding year. Mussels, lobsters, and crabs are the principal species taken.

About fifty district boats were engaged at the North of England herring fishing in the autumn, but the season there was more unremunerative than in 1911, when it was almost a complete failure.



Twenty boats were engaged at great-line fishing from Hartlepool in the spring, their gross average earnings being approximately £150 each.

Only six steam drifters, four motor boats, and one sailer proceeded to Yarmouth and Lowestoft. The average gross earnings of the drifters were £660, of motors £292, and of the sailer £185.

The damage to and loss of vessels and gear is fully shown in Appendix F., No. 3, the total wreck of a Dundee trawler off Cairnbulg last January being the most serious loss sustained. The value of gear lost or damaged at the English fishings was £742—almost the same as in 1911.

It is gratifying to report that no lives were lost in connection with the industry.

Coopers were steadily employed throughout the year, and owing to the big demand for barrels from Yarmouth and Lowestoft during the progress of the herring fishing there, they are assured of regular work, with good wages, for this year also.

Two steam trawlers, costing £7000 each, were built at Dundee for English owners.

The fishery barometers at Broughty Ferry and Arbroath are in good order.

The Montrose Harbour Commissioners are meantime expending the sum of about £8000 on enlarging and improving the fish jetty. The contractor hopes to have the work completed in the autumn, and when finished it is anticipated that it will be the means of popularising this port and increasing its importance. The facilities for the expeditious discharging of fish will, on the completion of the improvements, be most convenient, and all the requirements of a modern fishing centre will be available.

FREDERICK FRASER,  
*Fishery Officer.*

FISHERY OFFICE,  
MONTROSE, 6th January 1913,

*Stonehaven District.*

The results of the fisheries of this district (excluding shell-fish) for the year 1912 show a decrease from the totals of the previous year to the extent of 2031 cwts. in quantity and £474 in value. The value of shell-fish declined to the extent of £466, making a total decrease in value of £940. Herrings, codlings, and haddocks were chiefly accountable for the decrease, the only variety showing an increase being whittings. The weather conditions were much against successful fishing throughout a considerable portion of the year, and both fishermen and curers experienced a rather unprofitable season.

The means of capture returns continue to show a falling-off in the numbers of fishermen and boats, and the quantity of fishing material. The fishermen of the district are, unfortunately, not in a position to obtain for their herring and haddock boats the auxiliary power which evidently is now essential to the successful prosecution of the fisheries. The business men of Stonehaven, unlike those of some other districts, have never taken any interest in the fostering and developing of the fisheries. The village of Crawton no longer exists as a fishing station owing to the houses having been condemned as uninhabitable. Of the two boats' crews lately resident there, one has gone to Stonehaven and the other to Gourdon.

The summer herring fishing commenced about the middle of June, and terminated very abruptly about the 20th of August, when several boats proceeded to Scarborough. The season which then closed proved

to be the poorest ever experienced in the history of Stonehaven. Herrings were found to be very scarce on the favourite southerly grounds in July and August, and the best catches were taken in a north-easterly direction. For some reason, however, the local fishermen prefer to fish from the southward rather than from the northward—a characteristic which seems to be prevalent in all fishing ports south of Peterhead.

Most of the boats belonging to the district landed their catches at Aberdeen, where the fishermen consider better prices are obtained, while the bulk of the fish landed in Stonehaven was taken, as usual, by Montrose and Kirkcaldy boats. All the catch was landed by sailing vessels, the individual gross earnings for the season ranging from £145 to £248, and averaging about £190. The quality was fairly good throughout the season. The mattie class of fish was of a harder and firmer nature than usual, and especially was this noticeable among the June-caught herrings. Prices were the highest obtained for some years, averaging 19s. 8d. per cran., against 16s. 6d. in 1911. A feature of the season was that the bulk of the catch was disposed of for kippering and freshing.

The great-line fishing was engaged in during the spring by ten of the largest boats. The season, however, turned out a miserably poor one. The weather was very unsettled, and the boats were often kept from getting to sea regularly. Although a plentiful supply of herrings were to be had for bait, fish, especially cod, were unusually scarce on the grounds annually visited. The season closed in June with unsatisfactory returns, earnings ranging from £80 to £160, and averaging £108 per boat for eleven weeks' fishing.

Throughout the year the small-line fishing was regularly carried on, but during the summer months while the herring fishing was in progress the fleet was considerably reduced. The results of this fishing from March to August were very unremunerative, and on many occasions the shots landed did not realise the price of the mussels used as bait. From September to the close of the year the fishing, however, proved, for the season, the best recorded for some years. Takes of from 4 to 7 cwts. of haddocks, etc., were regularly landed from grounds five to ten miles off Tod Head. Taken over the whole year, however, the catch and value of haddocks, codlings, etc., show decreases of 1981 cwts. and £523 as compared with the records of 1911. The average price per cwt. was about 12s., as against 9s. 5d. for the previous year. A large proportion of the catch was purchased by fishermen from Downies and Portlethen, who took the fish home and smoked them for sale in Aberdeen. The local buyers consigned what they bought of the catch mostly to Glasgow in a fresh state.

The shell fisheries were prosecuted with disappointing results, owing, it was said, to the cold and unsettled character of the weather. The total number of crabs shows a decrease from the previous year of 10,637. Owing to the non-success of the fishing in the early summer, two Catterline boats went to fish at Cove, Aberdeen, where the crews were so well satisfied with results that they resolved to stay for good.

Very little was done at cod and ling curing, which is now almost regarded as an industry of the past. The number of barrels of herrings cured gutted was the poorest on record, and the brandings amounted to only 400 barrels. Prices for cured herrings were good. Branded Fulls sold at an average of 32s., Mat. Full at 28s., and Matties at 26s. All the herrings cured were shipped coastwise and by rail to other ports for exportation.

Only six local boats proceeded to the English herring fishing. Five



of these fished from Scarborough and one from Grimsby. Owing to the congestion, and to the lack of success at the former place, most of the boats returned home after from four to five weeks' fishing. Returns were extremely poor, some boats, indeed, having run into debt. The gross earnings were from £12 to £260, averaging £84 10s. Damage to gear was slight.

Another large addition has been made to the Stonehaven net factory. The proprietors have now formed themselves into a limited company, and the business is being pushed more than formerly. It gives employment at net-guarding to many of the old fishermen and fisherwomen in their own homes.

The deepening of the basin at Stonehaven Harbour was commenced in October. The contractors are Messrs. Kinnear, Moody, & Co., Glasgow. Plant has been laid down to the value of about £2000. The basin is being enclosed with a cement wall, the contractors considering that this plan will be more expeditious than the employment of divers would be.

The two barometers in the district belonging to the Meteorological Council are well kept, and in good order.

FISHERY OFFICE,  
ABERDEEN, 10th January 1913.

JAMES DONALDSON,  
*Fishery Officer.*

*Aberdeen District.*

Although the value of the fisheries in this district shows increased prosperity during the year 1912, the various branches of the industry were, nevertheless, not quite so regularly prosecuted and generally remunerative as in 1911. Stormy weather, scarcity of certain kinds of fish, and the coal strike in spring, all told heavily against successful catches and earnings. The total quantity and value of fish landed (including the catch of foreign vessels) amounted to 2,474,470 cwts. and £1,249,706, compared with 2,561,856 cwts. and £1,140,929 in 1911, thus showing a decrease in quantity of 87,386 cwts., but an increase in value of £108,777, which constitutes a record year so far as value is concerned. The decrease in the catch was mainly due to fewer landings being made, and the increased value to the enhanced prices realised for fish. Weather conditions interfered considerably with steady fishing operations, and the loss and damage sustained by vessels were the greatest experienced for years.

The means of capture show very little change. A number of trawlers were sold to foreign ports, and a number were wrecked. These have been replaced by new vessels of a larger type with up-to-date appliances, and by several second-hand vessels purchased from English ports, so that the year's returns show an increase of only 4 trawlers and £37,310 in value. Steam liners and drifters remain unchanged. Sailing boat returns continue to exhibit declining figures in fishermen, boats, and fishing gear, and this class of fishing vessel is fast falling into disuse in this district, and will soon be extinct.

With regard to the results of the trawling industry, the most noteworthy features of the year were the increased landings made by foreign vessels and the high prices obtained for fish. From home waters, the vessels made 190 fewer landings than in 1911, but owing to the high prices earnings were considered fairly good, especially by the long-voyage vessels. The total catch of fish landed by home vessels shows a decrease of 90,355 cwts. in quantity, but an increase of £83,077

in value, as contrasted with the figures for 1911. Cod shows a decrease of 103,235 cwts., and haddocks 35,439 cwts., while whittings, saithe, skate, gurnards, and monks show an increase of 6137 cwts. The most successful months in the year were March, April, November, and December, and the most successful vessel grossed £6744 for the year. In the catches from the North Sea grounds, small haddocks generally preponderated, but from October to the end of the year splendid catches of large haddocks were secured in the vicinity of the Dogger and Fisher Banks, which have been for years unprolific, and consequently seldom fished. The north-western grounds again yielded poor catches of haddocks, and on the Noup Head deep-water area supplies of cod and megrims were extremely poor. The quantity of hake landed in July was unprecedented. Flat fish of all kinds were very scarce, and show decreased landings, with the exception of witches and megrims. The landing of shots of very small plaice in November was greatly deplored by the trade, who consider that it ought to be prohibited. Some trawlers are reported to be using a chain attached to their ground rope as a "tickler" to stir up the flat-fish from the bottom, and on certain grounds it is said to be very effective. The average price realised for all kinds of fish was 11s. 4½d. per cwt., against 9s. 9¼d. per cwt. in 1911. Owing to the good demand for fish, no trawlers were laid up in summer, and the quantity of fish sold for manure was comparatively small compared with 1911. Trawling for herrings was carried on in the North Sea for a time in October, but on account of non-paying results the majority of the vessels made only two or three voyages and resumed ordinary trawling. The venture, generally, is too speculative, and not likely to develop to any great extent at this port. The best-fished vessels landed their catches at Altona, where they received excellent prices. The total catch landed at Aberdeen was 1533 crans, against 4414 crans in 1911. Prices ranged from 12s. 6d. to 52s. per cran, according to condition and size of fish. The quality was not quite so good as in the previous year, the fish being softer and showing longer dragging. The experiment made with a special herring trawl designed to fish at any depth of water was not a success. The fishing ground frequented was from 150 to 170 miles S.E. and S.E. by S. from Aberdeen.

The Faroe fishing was prosecuted with very moderate success, and the general opinion prevails that this fishing is not worth pursuing on account of the prolongation of voyages by stormy weather, and unsatisfactory catches. The bulk of the catch from Faroe now consists of codlings, and the quantity of flat fish, which used to be the leading feature, has fallen off. The catch shows an increase of 27,779 cwts. in quantity and £22,476 in value, but there were 103 more arrivals than in 1911.

Regarding the Iceland fishing, the great bulk of the fish from that locality was landed by foreign vessels, chiefly Germans. This fishing was entirely spoiled for the local vessels in spring owing to the coal strike making it impossible for them to work at a profit on account of the high price of fuel. The Germans, however, continued the fishing, and made good earnings. The season's catch was 428,819 cwts. and £125,815 for 436 arrivals, against 444,583 cwts. and £103,952 for 383 arrivals in 1911. The landings of fish by foreign trawlers exceed the preceding year's catch by 114,882 cwts. in quantity and £46,373 in value, with 72 more arrivals, which constitutes a record year. Eleven Faroese smacks landed 14,448 cwts. of fish, valued at £5418. A company has been floated at Hamburg for drying fish by electro-chemical means. The works are erected at Oxstedt, near Cuxhaven, and are



expected to be in full operation in February next. Through the ozonisation in the process of drying the fish it is claimed that they are made practically germ-free, and can be sent to the tropics without fear of being attacked by fungus.

The steam-line fishing industry was only moderately successful. Stormy weather and the prevalence of dog-fish on the Atlantic fishing grounds interfered very much with operations. Besides the usual fleet of liners, 22 trawlers were fitted out in May for lining, but the venture was not a success. The chief feature of the year was the increased number of catches landed from Iceland, which ranged from fair to good, but fishing was considerably hindered by icebergs. The season's catch shows a decrease of 57,975 cwts. and £7947, compared with the figures for 1911. Ling decreased by 43,885 cwts., and halibut by 4822 cwts. The most successful vessel earned almost £5000, but several vessels finished up in debt. P.D. and K.Y. liners landed a good many shots of fish at this port during the year. All the motor and sail great-line fish was landed by strangers. The small-line fishing is gradually receiving less attention, and is carried on chiefly by old fishermen. The season was a poor one.

The summer herring fishing started early in May, and terminated at the end of August with a decrease of 15,742 crans as compared with 1911. The fleet of boats fishing from the port was exceedingly small throughout the season, and consequently the quantity of herrings landed was often unequal to the demand. A feature of the year was the spotty character of the shoals on the usual S.E. grounds fished by Aberdeen boats, and a fair proportion of the season's catch was landed by boats fishing from Peterhead. Owing to keen competition between curers and tanners, prices ruled high, averaging 24s. 11d. per cran, against 23s. 6d. per cran in 1911. The quality was good. The most successful drifter grossed £1700, and the average earnings amounted to about £650 for twelve weeks' fishing. Sailing boats averaged about £180.

There was very little improvement in the shell fisheries at the out-stations, and very few shell fish of any kind were landed by trawlers.

The business done in sending fish fresh to market continues to develop, not only in home markets, but in Continental markets also. Monks are in great demand on the Continent, and about 550 tons of this species alone were sent there, *via* Hamburg. These fish commanded high prices, and are said to be sold as "baby" sturgeon.

The number of barrels of herrings cured gutted was considerably less than in 1911, and branding was, in consequence, very slack. Curers consigned most of their early cured herrings to the Continent themselves and obtained good prices. Branded herrings were in demand and commanded high prices, especially at the close of the season. A large business was done in tinning and kippering all the year round, and regular supplies were received from the West Coast during autumn and winter, and from Norway in spring. In all 1258 crans of herrings came direct by steamer from Norway, and sold at from 17s. to 28s. per cran, and about 1200 crans were received *via* Hull. About 2500 crans came from Yarmouth, chiefly for redding purposes, and owing to the small size of the herrings several firms failed to get their usual supplies for reds. A new departure lately introduced by tanners is that of putting up cutlets of cod and fillets in tins, and 2lb. cutlets of cured-dried ling in pasteboard boxes and in grease-proof paper parcels for home and foreign consumption. The quantity of roes cured for the sardine fisheries in France was only 2600 barrels, as against 4150 barrels in 1911. The stoppage of the home vessels at the Iceland fishing curtailed the usual supply. Of the herrings

exported to the Continent, the bulk went to German markets, and almost all the season's cure was shipped in part cargoes. The quantity of cod, ling, etc., exported *via* England to foreign ports shows an increase of 22,954 cwts.

An earlier commencement than usual was made at the English herring fishing, and the 45 district steam drifters fishing there had a very good season. The most successful vessel grossed £1400, and the lowest £262, the average being £659. The loss of netting sustained is estimated at £1100. All the district curers were well pleased with their season's profit.

Coopers were steadily employed during the year, and the output of barrels exceeds that of 1911 by 80,596 barrels. A great demand for barrels was created by the phenomenal success of the English herring fishing.

The number of fishing vessels built was 43, the same as in 1911, but the shipbuilders have orders still in hand that will keep them employed for the next 15 months.

During the year 18,057 baskets were branded, which is by far the highest number branded since the introduction of the regulations.

In regard to harbour improvements, the building of the docks at Torry is progressing favourably. An extension is now being made to the fishmarket on the Albert Quay side of about 400 feet, at a cost of £9000, and it is much required at the height of the Iceland season.

FISHERY OFFICE,  
ABERDEEN, 10th January 1913.

JAMES DONALDSON,  
*Fishery Officer.*

*Peterhead District.*

During the year 1912 all those connected with the fishing industry enjoyed an almost unprecedented prosperity. The home herring fishing was a very successful one from the fishermen's point of view, while curers and fish-workers in general are willing to admit that they have all done very well. The chief factor in contributing to the year's prosperity was the remarkable success of the English herring fishing. The revenue brought by it to the district was a record one, with the result that all classes directly and indirectly connected with the industry have benefited considerably. Even the total quantity of fish landed in the district exceeds that of 1911 by 15,042 cwts., as well as £49,359 in value.

The means of capture returns compare unfavourably this year with those of the past few years, which have shown a steady increase. In this year's returns there is a decrease of 8 steam vessels and 12 first-class sailing boats from those of the previous year. As far as steam vessels are concerned, this is chiefly due to the transference of the London and Peterhead Steam Fishing Company to Yarmouth, which resulted in the vessels belonging to the Company being removed from the district. The first-class sailing boats are fast passing away, the number referred to above having been broken up and cancelled from the register.

The decrease in the steam vessels does not prove that the immense progress which was made during the decade previous to 1912 with regard to their construction has reached its limit. In fact, the decrease is expected to be more than counterbalanced throughout the coming year by new and second-hand vessels. This goes to show that the development which has taken place within recent years is still going on.



Operations in connection with the great summer herring fishing began on a small scale in the third week of May, a fortnight later than in the previous two or three years. Fishermen, mindful of the severe lesson taught by a too-early commencement in 1911, were by no means anxious to have it repeated. A proposal, therefore, to establish a close time until the 10th of June was generally adopted, but as English and Shetland fishermen would not become parties to the agreement it was never carried out. Still, the decision retarded for about a fortnight the fitting out of numerous craft, and was the cause of some proceeding to the West Coast and Shetland. It was therefore the first week in June before the fishing could be said to be in full swing, and from that time onwards to the close of the season operations were carried on without interruption. Early-netted fish were considered riper and of better quality than in previous years, and the colder weather which prevailed contributed materially to their preservation when put into cure. Towards the end of the last week of May a few curers had started operations by curing for the Continental markets, and owing to the keepable nature of the herrings the practice immediately became general. This created a keen competition for the fresh article, with the result that prices went up by leaps and bounds from a few shillings per cran till as high as 44s. was reached, the average price for the season being 24s. per cran, against 19s. 3d. in 1911.

The catch for the month of May was 3132 crans, compared with almost 20,000 crans in May of the previous year, the reduction being mainly due to the close time in the beginning of the month. For the third year in succession June produced the weekly record catch for the season, and the total landed for that month was almost equal to that of July, which is generally considered the best month of the season. The season, though rather later in starting than in the previous few years, closed earlier than usual. Herrings became scarce at the latter end of August, and the fishermen, having had by this time a prosperous season, took advantage of the bright prospects reported in connection with the English herring fishing and repaired thither as soon as possible.

The season closed with a catch of almost 198,000 crans, or 5241 crans in excess of 1911. The results were the more gratifying considering that the close time agreement had diminished the fleet, and that the season was six weeks shorter than that of the previous year. The catching power was made up of an average of 145 steam drifters, 190 sail boats, and 2 motor boats. The operations of the motor boats were very irregular, there being three for one short period, and only one for most of the season. It would therefore be invidious to make any comparison with regard to the earnings of such vessels. The average earnings of steam drifters were £982, while those of the sailing boats amounted to the very satisfactory figure of £492. The favourable weather, and the fact that the fishing grounds were comparatively near, contributed greatly to the success of the latter, and by reason of their small outlay and inexpensive maintainance, the net earnings, when divided, would give a better share per man than would those of the steamers. Operations were carried on chiefly from 25 to 50 miles off in a north-east and north-east-by-east direction from Peterhead, and from these grounds sail and steam vessels were able to reach the port almost daily with small or large catches. This further assisted the quality of the landings.

It was noticeable that the herrings this year were not so fully developed as in previous years, even at the height of the season, the chief cause of this being doubtless the cold weather. This meant that, so far as the cured market was concerned, the trade-markers had the

advantage, for only a small portion of the catch was branded or could pass inspection under the Board's regulations. Small curers, therefore, who largely depend upon the brand, must have had a difficulty in making ends meet, for the prices in the cured market, though high, did no more than balance the high rates which were paid for the fresh article. The chief factors ruling the high prices in the fish saleroom were the keen competition created by the large number of buyers, and the clear state of the cured market, while the strong, firm quality of the herrings encouraged bidding to the utmost farthing of their value.

In consequence of the healthy condition of the cured market, shipments to the Continent began early, and continued without interruption throughout the whole season. Indeed, the consumption both in Germany and Russia was quite equal to the quantities exported to those countries, a gratifying state of matters in comparison with previous years, when large quantities were put into store on both sides. The first sales for export took place as early as the 1st of June. About that time Matties sold at from 16s. 6d. to 18s. per barrel, and Mediums from 22s. to 24s. Thereafter a steady rise was experienced, and at the end of the season the quotations were:—Large Full, 42s; Full, 40s.; Mat. Full, 38s.; Matties, 31s.; and Large Spent, 29s. to 30s.

There is a considerable decrease in the line fishing of the district, which is accounted for by the severe weather experienced in January and February, and by the fact that in the spring months the great-line steam vessels landed their catches mostly at Aberdeen.

The unprecedented success of the English herring fishing added enormously to the revenue of the large number of fishermen, curers, and other workers belonging to the district. The number which proceeds thither to take part in this great industry is increasing year by year, and now scarcely an individual who is engaged in the home herring fishing is left behind. One hundred and twenty-five steam drifters and three sail boats comprised the fleet which proceeded from this district, the former in the short season averaging £825, and the latter £220. The success of the curers was, in proportion, still greater, owing to the fact that the cured markets were pretty well cleared out at the start of the home fishing season, and that this pleasant state of matters continued throughout the year owing to the growing consumption and the high prices of other foodstuffs on the Continent.

The loss of netting at the English herring fishing amounted to £7500. This loss was chiefly attributable to fouling and weight of fish, which is almost unavoidable with such dense shoals of fish and the comparatively small area the fleet works upon.

Owing to the very fair fishing at home and the record landings at the English ports the local barrel-making firms were extremely busy throughout the year, and cleared out their entire stocks, with the result that coopers will have a busy winter.

The net-weaving industry continues to grow in the district. Four factories are kept busy, and altogether about 60 hands are employed in this intricate work.

The boat-building industry did not show much improvement on the previous year. One steam drifter and two or three yawls were constructed, but most of the work consisted of repairs.

In connection with the various branches of the fishing industry it is gratifying to report that there was no loss of life throughout the year.

WALTER DUFF,  
*Fishery Officer.*

PETERHEAD, 7th January 1913.



*Fraserburgh District.*

The year under review was a very prosperous one for drift-net fishermen, and fish-curers, fish-workers, and fish-salesmen also shared in the general prosperity. Twelve steam drifters were added to the fleet, and the total value of this class of vessels and their fishing gear shows a considerable increase. The number of sail and motor boats remains the same as in the former year, but as the value of new sail boats would not cover the depreciation in this class there is a decrease in their total value.

The herring fishing began on 21st May. East Coast fishermen had agreed to a voluntary close time until the 10th of June, but as some of the Northern ports commenced fishing long before that date it was decided to break through the agreement, and a regular start was made on the above date. At the commencement some of the sail boats were handicapped for want of hired men, as, having arranged to begin on 10th June, a sufficient number of hired hands were not forward for the earlier commencement. About 4000 barrels of the May catch were cured for the Continent. Even at this early date there was a demand for cured herrings, and these sold at 21s. per barrel. In the previous year the price for the same kind of fish was 11s. per barrel. From the 1st June to the 7th September the fishing continued in full swing. There was no heavy day's or heavy week's fishing, but a general fishing throughout the season. The largest quantity landed in one day was 9436 crans on 15th June, and the heaviest week's fishing was 23,344 crans during the week ending 3rd August. Very heavy shots were exceptional, and only on four days did individual shots exceed 100 crans. On the other hand, shots of from 60 to 80 crans were more common than usual. The highest shot for the season was 206 crans.

The weather generally throughout the season was cool and breezy, and this state of weather helped the sail boats in getting to and from the fishing grounds. On several days the average catch of the sail boats exceeded that of the steam drifters, a rather unusual occurrence, taking into consideration the greater catching power of the latter. It is generally agreed that the season was one of the best sail boats have ever had.

The quality of the fish showed a great improvement on the former year; possibly the cool weather had a good deal to do with this, the weather during 1911 being warm and foggy.

The principal fishing grounds were from 40 to 60 miles N.N.E. from Kinnaird Head, but quantities were brought from the Fair Isle waters and as far as 80 to 90 miles in a N.E. direction. The highest shots were caught 10 to 12 miles off the port. These were of exceptionally good quality, but this shoal, although it must have been dense, was only of small area, and the fishing lasted only two or three days.

Prices rose steadily from the beginning to the end of the season. The average price per cran for May was 12s. 10d., for June 20s. 2d., for July 27s. 3d., for August 27s. 9d., and for September 29s. 8d. The average per cran for the steam drifters' catch was 26s. 10d., for motor boats 24s. 5d., and for sail boats 23s. 4d.; while the average for the whole catch was 24s. 11d., as compared with 21s. in 1911. The catch exceeds that of the former year by 7379 crans in quantity and £48,543 in value.

The price of the cured article also rose steadily from the beginning to the end of the season. There was no new method of cure, except that some of the large curers now regularly use the salinometer to test the strength of salt and the pickle in the process of cure. Fish-curers had a prosperous year, especially at the English herring fishing. It is generally understood that it was the most remunerative season they

have ever had in that quarter, and nearly the whole of the local fish-curers have an interest there now.

All the steam drifters and motor craft belonging to the district were employed at the English herring fishing. Only a small number of sail boats now venture to that fishing, and the number is yearly getting less. The steam drifters and motor boats did remarkably well, and their success in England, taken in conjunction with their earnings in Scotland, made the year one of the most prosperous drift-net fishermen have ever had. Some of the steamers and motor boats tried the early and late herring fishings in Ireland, but their earnings there did little more than pay expenses.

The quantity of fish caught by lines does not show much variation from the previous year. Cod, ling, saithe, and whiting each show a small increase, while there was a considerably less quantity of haddocks landed. The quantity of cod caught by nets was 1457 cwts., most of which was taken by Gamrie fishermen in their local waters and landed at this port. These fish were all in a spawning condition.

The line boat "Maggie Noble" foundered in a gale on 27th February, and the crew of four men were drowned. A fund of close on £1100 was subscribed for the widows and orphans. Otherwise there was no serious loss of or damage to boats or gear in the district.

A considerable loss of fishing gear occurred at the English fishing, caused principally by the nets fouling, or sinking with the weight of fish. It is reported that most of the enormous catch landed at Yarmouth was caught in an area of about 15 miles square. The loss and damage of gear to local crews at this fishing is estimated at fully £1400, besides a few hundred pounds for damage to vessels.

The number of whole barrels made in the district was about twenty thousand less than in the former year, while half-barrels show an increase of about the same number. Iron hoops became very scarce during the period of the coal strike, and a considerable number of barrels were made full-hooped with wooden hoops on the bottom end at that time.

Twenty-nine cargoes of fishing stock were sent to England, 20 to Shetland, 9 to Orkney, 4 to Stornoway, and 12 cargoes of tinned herrings were despatched to London, while 26 cargoes of fishery salt and 20 cargoes of staves and wooden hoops were imported.

The teaching of navigation to fishermen is still being carried on at five centres in the district, and a considerable number attend these classes. At an examination in March, eight of these fishermen passed as extra masters, seven as skippers, and one as second hand. Another feature of these evening classes is one for coopers, where they are taught the technicalities of their trade, such as how to fill up shore curing accounts, branding request notes, seasticks, upsets, outcome, averages, and the business of fish-curing generally. The class for teaching cookery to young fishermen is still being carried on.

The boat-building trade was fairly busy, more especially towards the end of the year. Besides the five steam drifters launched, three others were under construction at the end of the year, and several more have been ordered.

The harbour extension scheme makes steady progress, the cofferdam having been placed in position, and the new area pumped dry in September. Since that time a staff of workmen has been employed deepening and underpinning the walls of what will in future be known as the Station Harbour, which, when completed, will give an addition of ten acres of harbour space. The strengthening of the north break-water with a toe block is now almost completed.



*Banff District.*

Taken as a whole, the year now under review was a very successful one for fishermen, and also remunerative for curers and all others connected with the fishing industry. In the beginning of the year prospects were not over-bright, as the winter herring fishing in Ireland was so unsuccessful that those who engaged in it failed in most cases to make enough to cover their expenses. The summer herring fishing changed the aspect of things, for if the landings did not bulk largely, prices throughout were sufficiently good to more than counterbalance any shortcoming in quantity. For the unusually high prices various causes were assigned, chief among them, perhaps, being a clear market and keen demand on the Continent, where advanced prices for almost all kinds of food enhanced the value of herrings. Following the remunerative home fishing came a short but exceptionally good English fishing, from which most of the fishermen returned highly pleased with their success, although a few crews were not over-fortunate. Line fishing was very successful, for although the total landings were somewhat less, the value was greater than in 1911. The year closed with everything connected with fishing in a very prosperous and promising condition. Fishermen had made good money, and curers had been fairly successful, as had also all fish-workers. Stocks of barrels were well used up, employment for coopers during the winter being thus created, and boat-builders at the end of a busy year had still sufficient orders booked to keep them going for a considerable time. Freight rates remained practically unchanged.

There is a decrease in the number of vessels belonging to the district, accounted for by the number of sail boats sold to other districts, and old boats becoming useless. Seven steamers were added to the fleet, and a further increase is expected next year. A few enterprising crews belonging to Whitehills have had motors put into their haddock boats (26 to 29 feet keel). These are of the "Kelvin" type, with a speed of about six miles per hour. So far they have proved satisfactory, and there is every prospect that more men will adopt this means of propulsion for their small boats.

No attempt was made at winter herring fishing, but a few crans were brought in by boats returning from the West Coast.

The summer herring fishing began on 6th May, and practically ended about the middle of August. In May and June there was little success, the landings being little more than half those of the preceding year. The greater part of the season's catch was made between the beginning of July and the 17th of August. Throughout the season the herrings were generally of good size and quality, particularly those coming from the Orkney grounds. Prices ruled exceptionally high, the average for the season being 23s. 3d. per cran, against 17s. 4d. in 1911. Most of the early herrings were kippered, and curers did well with them, as also with those cured later on for exportation. Fresh and kippered herrings go to Manchester, Liverpool, and Birmingham, and those cured chiefly to Stettin and Danzig. Line fishing shows a decrease in quantity of about 1400 cwts. (which was chiefly in haddocks), and an increase in value of about £800. The shortcoming was due to frequent interruptions by stormy weather in the latter part of the year, and a scarcity of fish, particularly on the inshore grounds. The haddocks were mostly large and medium-sized fish of excellent quality, the proportion of large being greater than last year. Fully one-third of the haddocks were smoked, and the rest sent off fresh, in both cases chiefly to Glasgow. About the usual number of boats prosecuted cod-

net fishing, and met with considerable success, the catch being fully two-thirds in excess of that of the previous year, which, however, was a very poor one. The Whitehills men fishing with nets for soles and plaice had rather more success with soles, but plaice, which were got in fair quantities last year, were very scarce, which meant to these men a considerable loss.

Shell-fish fishing was carried on, as usual at Gardenstown, Macduff, and Whitehills, with less success than last year. The varieties got were crabs and whelks. The latter are gathered by young people and bought for despatch to London.

There was an increase in the number of steamers at the English and Irish fishings, but, as usual, few sailers went to the former and none to the latter. The steamers' earnings in England were from £500 to £850, a few making about £1100, and sailers £200 to £360, while in Ireland the steamers made from £60 to £200.

Boat-builders were fairly well occupied, building in all 31 fishing vessels, of which five were steamers. Eleven boats were for the district, ten for other districts in Scotland, and ten for Ireland.

The following accidents occurred during the year:—A steam drifter sprang a leak and sank off Fraserburgh; a motor boat went ashore near Aberdeen, sustaining considerable damage; and a steam drifter engaged in herring fishing in England was run down by a trawler and sank. Fortunately, there was no loss of life in connection with these disasters, but a fisherman belonging to Gardenstown was unfortunately drowned off Fraserburgh through falling overboard while engaged in hauling nets. There was, as usual, a good deal of loss of and damage to fishing material in England.

The fishery barometers are in good order.

JAMES FARQUHARSON,  
*Fishery Officer.*

FISHERY OFFICE,  
MACDUFF, 6th January 1913.

*Buckie District.*

The year 1912 was one of prosperity for the fishermen of this district. The landings of white fish in the district continue to increase, notably of haddocks and cod, which show considerable increases upon last year's returns, while the local crews who left home to prosecute the herring fishing from the various fishing centres in Scotland, England, and Ireland had a very successful year. Fish-curers, coopers, and workers of all descriptions also benefited from the successful season on the English coast, and the year may be considered to have been a prosperous one for all concerned.

The most noteworthy features in connection with the district are the increase in the means of capture, the continued progress of the steam drifter, and the rapid decrease of the sail boat. During the year under review ten vessels of the former type were added to the fleet, which now numbers 257 vessels of 6700 tons, while, on the other hand, 24 first-class sail boats were cancelled from the register. The means of capture return maintains its progressive position, and the total value, which includes vessels and all fishing material, shows an increase of £18,805 in excess of last year's figures.

As in former years, the majority of the district fishermen derived their earnings from herring fishing, which they prosecuted from the



various fishing centres round the coasts. Beginning in January, 83 steam drifters were fitted out and proceeded to the West Coast of Scotland and the North of Ireland, but at that early period of the year stormy weather hindered their operations, and the season proved unremunerative for them, their gross earnings only ranging from £120 to £340 per boat.

The herring fishing was commenced at home in the latter end of May by a number of sail boats, which fished in the Moray Firth until about the middle of July, when they left for other districts. After that date landings were practically confined to steam drifters coming home for week-ends. The season's catch amounted to 11,692 crans, valued at £12,712, against 12,489 crans, valued at £10,480, in 1911. A large proportion of the cured herrings were sent coastwise, *via* Aberdeen and Leith, to the Continental markets.

At the close of the summer herring fishing a fleet of 257 steam drifters, 6 motor boats, and 80 sail boats fitted out for the English coast, leaving about the middle of September. The season on that coast proved remarkably successful, and all connected with the industry reaped a rich harvest. The gross earnings of steam drifters ranged from £700 to £1200, of motor boats from £500 to £800, and of sail boats from £250 to £400. Unfortunately, the fishermen experienced a great loss of fishing material, caused by fouling and weight of fish, the estimated loss amounting to £15,000. It is estimated that the average earnings of each class of vessel—steam, motor, and sail—employed in Scottish waters amounted to £950, £550, and £400 respectively, and in English waters £800, £450, and £300 respectively.

The small-line or haddock fishing, which is prosecuted from all the creeks in the district, affords employment to a considerable number of the older class of fishermen. It was taken part in by from 40 to 50 small and 8 large boats during the spring and autumn months with considerable success, the gross landings showing a substantial increase on last year's figures. The fish were of excellent quality, and were bought principally for the Glasgow markets at remunerative prices to the fishermen.

Two steam drifters and 66 sail boats fitted out for cod-net fishing during February, March, and April. The season proved very successful, good catches, which realised remunerative prices, being obtained. The total quantity landed amounted to 17,695 cwts., valued at £6664, as against 9560 cwts., valued at £4502, in the preceding year. It is gratifying to observe that the landings of white fish in the district have been increasing in quantity and value for the past few years, and that fishermen are devoting more time and attention to this fishing, which now yields them a good income during the winter months.

The boat-building trade was fairly active, five steam drifters and two second-class sail boats being built and launched during the year, while, in addition, three steel vessels were built elsewhere for district fishermen. Orders have already been placed with builders at home for five vessels for delivery for the coming herring season, and there is every prospect of boat-builders being busy throughout the whole year.

Coopers were actively employed either at herring-curing or barrel-making during the year, and after the close of the English fishing every available man found employment at barrel-making.

The loss of and damage to boats and fishing gear in Scottish waters was estimated at £6110, and four lives were lost by drowning during the year.

The progress of the new harbour works is satisfactory. A consider-

able addition has been made to the new breakwater, quay-walls are in course of construction, and excavations inside the new works are in progress. The harbour, when finished, will greatly add to the accommodation of the port, and to the convenience of the drifter-owners by enabling them to winter their vessels at home.

FISHERY OFFICE,  
BUCKIE, 9th January 1913.

JAMES STEWART,  
*Fishery Officer.*

*Findhorn District.*

The returns of white fish landed in the district during the year under review show a decrease of 9082 cwts. in the quantity landed, but an increase in value of £5633, when compared with the returns of the previous year. The decrease in quantity was due to the comparatively poor results obtained at herring fishing at Inverness during the latter months of the year, while the increase in value was the result of the improvement in the cod-net fishing and the higher prices prevailing for herrings. The value of fish landed in the district (£34,400) represents, however, only a small fraction of the aggregate earnings of the district fishermen. The large majority energetically prosecute herring fishing for the greater part of the year at the various stations around the British coasts, and from this source their earnings during the year exceeded a quarter of a million pounds sterling. Results in the early part of the year were discouraging, the Irish fishing proving a failure; but with a successful season at the Scottish and English fishings the fishermen had, on the whole, a prosperous year.

Sixty-seven steam drifters took part in the Irish fishing, their earnings ranging from £30 to £350, with an average of £120 per vessel, which was less by fully £30 than the average expenses incurred.

On the Scottish coast 119 steam drifters, 4 motor, and 93 sailing boats were employed. Steamers' earnings ranged from £500 to £1500, the average being £1000; motor boats earned from £500 to £700, the average being £600, while sailing boats had from £250 to £700, with an average of £450.

At the English fishing 116 steamers, 2 motor, and 10 sailing boats were employed. The earnings of the steamers ranged from £350 to £1100, the average earnings for each class of vessel being estimated at £700, £400, and £300 respectively.

The means of capture returns show a decrease of eight in the total number of boats, and of 410 tons in the tonnage. Only five steam drifters were added to the fleet, while the number of first-class sailing boats shows a reduction of 17. Second-class boats show an increase of five, due to the successful haddock fishing last year. There was no addition to the number of motor boats.

During the summer herring fishing herrings appeared to be scarce on the local fishing grounds, and the landings were practically confined to week-end arrivals at Lossiemouth from the Wick and Orkney grounds. The quantity landed was slightly less than during the previous year, but the quality generally was much more satisfactory, particularly during the early part of the season, which resulted in the value showing a fair increase.

At Inverness the herring and sprat fishing was prosecuted during the first three and last four months of the year by 50 crews belonging to Avoch, Campbeltown, and Nairn, with rather poor results, but owing to the fish being of better quality than those landed during the previous year fairly good prices ruled, with the result that the value for

1912 shows only a slight decrease compared with the previous year.

The cod-net fishing was fairly successful. The returns, although considerably short of the record season of 1910, show an increase of 14,524 cwts. in quantity and £5629 in value compared with the season of 1911, which, however, was a failure. Operations were prosecuted on the grounds from four to eight miles off the coast from Tarbat Ness to Helmsdale during the spring months by 15 steam drifters, 2 motor and 64 sailing boats, the catches being landed at Lossiemouth, Burghead, and Hopeman. During February the demand was rather slack, and prices frequently fell as low as 8d. to 10d. per fish, but for the remainder of the season the demand was generally good, prices ranging from 1s. to 3s. 6d. per head. Two firms conducted curing operations and despatched 110 tons in a wet salted condition to other districts to be dried. One hundred tons (live-weight) were forwarded by rail to Aberdeen to be cured there, while the remainder of the catch was despatched in a fresh state to the Southern markets, principally London and Glasgow.

From 40 to 60 of the district crews prosecuted small-line fishing throughout the year with fairly good results, although the returns show a slight decrease compared with the previous year. Good takes of haddocks were generally obtained during the first half of the year, but thereafter this fish, which contributed 70 per cent. of the fish caught by lines, appeared to be scarcer. The quantity of flounders and plaice landed was practically the same as during the previous year. The output of mussels at Findhorn was only about half that of the previous year.

The boat-building trade was slack. At Inverness four steam drifters were launched, three for Nairn crews and one for Inverness; while at Lossiemouth seven second-class sail boats were built for local fishermen for haddock fishing, one sail boat of 40-foot keel for Barra, and a motor boat of 30-foot keel for Mallaig. Coopers were steadily employed, and with the brisk demand for stock during the English fishing all the available empty barrels in the district were disposed of at remunerative prices.

The only motor boat belonging to Lossiemouth was burnt in September while proceeding from Loch Slapin to Mallaig with a valuable catch of herrings. A first-class sail boat belonging to Hopeman foundered off the island of Uig, while another first-class sail boat belonging to Lossiemouth was run down by a steamer off Grimsby and one of the crew was unfortunately drowned. The loss of gear was comparatively slight during the summer herring fishing, but was heavy at the English stations, the average being estimated at £50 per boat.

The fishery barometers at Nairn and Burghead are in good order and carefully tended.

FISHERY OFFICE,  
LOSSIEMOUTH, 6th January 1913.

WILLIAM SINCLAIR,  
*Fishery Officer.*

*Cromarty District.*

The quantity of fish landed in this district and the monetary returns thereof do not give a true indication of the prosperity of the fishermen. Indeed, the greater part of their earnings is now derived from herring fishing at different fishing centres, and in this respect 1912 was a profitable year. The landings at the home ports were confined almost exclusively to the produce of small-line fishing, and the income



from that occupation represents about one-third of the amount earned by the district fishermen during the year.

The exodus of men to herring fishing was not quite so great as in the preceding year, but about 370 were absent from six to eight months in this connection. That number included the crews of 21 boats belonging to the district, while the remainder went as hired hands in boats from Moray Firth and other East Coast ports. The district boats were employed chiefly at Castlebay and Fraserburgh, leaving in May and returning in September. A number of hired men were engaged on the coast of England till November.

Seventeen district crews averaged £145 at Castlebay, and nineteen averaged £335 at Fraserburgh. Three steam drifters, registered in other districts, but manned by Avoch men, averaged £900 at Lowestoft and Yarmouth.

The crews of boats and hired men earned an aggregate of £21,000 at the different herring fishings. That amount exceeds the earnings of the preceding year by £4000, and is about £3000 higher than the figure for 1910, which was one of the best recent years. The fishings at Fraserburgh and on the English coast contributed equal shares to the increase. None of the district sail boats went South to the English fishing.

From 200 to 230 fisher girls were arled as herring gutters and packers. These left for different stations in May, and the majority were employed till the close of the fishing at Lowestoft and Yarmouth. The season was one of the most lucrative ever experienced, and in a number of cases earnings were quite substantial.

Fishing by means of cod nets was practised by three Avoch crews in second-class boats, but the success attending their efforts was not such as to induce a rapid expansion in that mode of fishing. There are, however, evidences that the fleet will be slightly increased during the ensuing season, as crews are taking steps to furnish themselves with the necessary gear.

The fleet of sail boats in the district underwent a further diminution. Two first-class Avoch boats were sold to Wick district, and the crews sought berths on board steam drifters. Cromarty, which at one time could muster a numerous fleet of first-class herring boats, does not now possess a single vessel. The last representative was sold at the close of the year to Orkney district. The late owner of this boat was well known as one of the most successful herring fishers on the coast, and he is now able to retire with a competency.

The drain on the district through emigration was comparatively heavy. Fully a dozen men left for Australia and Canada, to be employed in maritime callings. A number also went to reside permanently in Moray Firth towns. A number of steam drifters belonging to other districts are manned entirely by district crews, but neither steam nor motor power is yet used in any of the district boats.

On the return of the Avoch men from the summer herring fishing over 40 crews fitted out their second-class boats and commenced to fish for sprats and small herrings in the Inverness and Beaully Firths. This fishing continued till the close of the year. In contrast with the preceding year, when the supply frequently exceeded the demand, the reverse was the case during the 1912 season. Though the fishermen were most indefatigable in their search, no large shoals were located. Herrings and sprats met with a ready sale at Inverness, where a number of buyers had congregated. Several crews earned from £60 to £80.

A portion of the fleet of yawls was employed through-out the year at small-line fishing, but the maximum number (76 boats) was at work only during the spring and winter months. The average catch for 6849



arrivals was 2.6 cwts., against 2.5 cwts. for 7003 arrivals in 1911. On several occasions during the closing months of the year individual crews had takes of from 6 to 8 cwts. of large and medium haddocks at a shot. Similar results were obtained in the corresponding period of 1911, but then the greater part consisted of the medium and small varieties. On the whole, the earnings derived from codling and haddock fishing were considered satisfactory. A portion of the catch was retailed by hawkers in the district between Inverness and the coast, but consignments were sent from time to time to Aberdeen and Glasgow. The presence of buyers at Cromarty obviated to a large extent the necessity for the fishermen hawking their fish, a practice certainly to be deprecated on account of the waste of both time and energy involved. The bait used was mussels, "buckies," and pieces of herring. The last-mentioned at certain seasons proved the most effective. Supplies of herring got from Kessock, Inverness, were salted and used as occasion required. Mussels were procured gratis from the adjacent beds. Catches of flat fish were very small, and seldom exceeded 1 cwt.

The gathering of whelks is the most important of the edible shell-fish fishings, but, considering the amount of labour expended, the return is small. This work is confined to the spring months. The capture of crabs and lobsters is restricted to one small area, and does not add much to the revenue.

Four men from the village of Hilton lost their lives through the foundering of their boat in the Inverness Firth. The weather was squally at the time, and the boat was deeply laden with mussels.

The six fishery barometers are in good order, and continue to serve the purpose for which they were intended.

FISHERY OFFICE,  
CROMARTY, 6th January 1913.

ALEX. E. M'KENZIE,  
*Fishery Officer.*

#### *Helmsdale District.*

The fisheries carried on locally by the fishermen of Helmsdale district were attended during the year 1912 with varying success.

Haddocks, codlings, and plaice were fairly plentiful on the fishing grounds, and consequently the small-line fishing produced better results than have been obtained at that fishing for many years.

On the other hand, the "ripper" codling fishing, chiefly owing to unfavourable weather in the spring, when it is usually most actively prosecuted, yielded poor results as compared with those of the previous year.

In November and December the crews of ten small boats working from Helmsdale were able to make fair and occasionally good earnings at great-line fishing. Small herrings railed from Inverness were used as bait. These could usually be got when required, and cost delivered about 8s. per  $\frac{3}{4}$ -cwt. box.

No large boats belonging to the district were employed at cod-net fishing, but in March and April twelve Golspie crews combined that fishing with small-line fishing, with very satisfactory results.

Crab and lobster fishing received little attention. The total value of these shell-fish landed amounted to £311, as against £352 in the year 1911.

The mussel-beds at Little Ferry were more productive in 1912 than they have been since 1903. Yet in 1912 the total output amounted to only 2000 cwts., which is very much below what these beds, presenting as they do ideal conditions for the cultivation of mussels, ought to

produce annually. It would be of great advantage to the fishermen of Helmsdale if a full supply of mussels could be obtained locally. In the year 1912 upwards of 80 tons were railed to that village from Newhaven and Port-Glasgow, and the amount paid for carriage was a considerable item in the expenses connected with the haddock fishing.

As a general rule, the earnings of the fishermen who went from the district as hired hands to the Scottish summer and English herring fishings were very satisfactory, as also were the earnings of the women who went to these fishings as gutters and packers.

Only 19 of the district boats were employed at the summer herring fishing, viz., 9 steam drifters, 9 sailing boats, and 1 motor boat. They operated chiefly from Wick and Stronsay, and shared in a moderate degree the success which attended the fishing at these ports. The average gross earnings of the steam drifters amounted to £830, and of the sail boats to £342. The motor boat grossed £380.

Only the steam drifters proceeded to the English herring fishing, where their average gross earnings amounted to £624. At this fishing the crews lost a large quantity of their fishing gear.

As regards the returns of means of capture, the only change worthy of notice which occurred in 1912 was the introduction into the district of an auxiliary motor line boat. This boat was supplied in November to the order of a crew in Dunbeath, and it was employed during the closing weeks of the year, giving entire satisfaction to the owners. There are indications that the example thus shown by this crew will be followed in the near future by other fishermen in the district.

In November two Helmsdale fishermen lost their lives through the swamping of their boat when returning from the haddock fishing. Another Helmsdale fisherman lost his life in August. It is presumed that he fell from the pier into the river, and was carried out to sea by the current. Nobody saw him falling in, however, and his body has not been recovered.

The fishery barometer at Dunbeath continues to be carefully tended, and is much appreciated by the fishermen.

FISHERY OFFICE,  
HELMSDALE, 7th January 1913.

ALEXANDER WOOD,  
*Fishery Officer.*

#### *Lybster District.*

Throughout the year nothing of any great importance occurred in connection with any of the branches of the fishing industry pursued in this small and somewhat unimportant district.

The means of capture of the district have now been reduced to a very low ebb, although little change occurred during the year. There are only two or three of the boats suitable for the prosecution of the deep-sea fishing, and these usually work from centres outside the district. All the other craft operate upon the local inshore grounds, either at herring or line fishing.

Every succeeding year sees a reduction in the number of men employed in the district fisheries. Young men do not appear to consider it an occupation that offers them sufficient inducement to embark upon as a means of earning a livelihood. They prefer moving off to the Southern industrial centres. A good number, however, find their way to the various British Colonies.

All attempts made at herring fishing during the year met with failure. In the winter months there appeared to be an entire absence of herrings upon the usual coast grounds.

Various trials were made at herring fishing throughout the period extending from May to September. The most satisfactory results were obtained in the month of June, the fish caught at that time having been of very good quality. The entire catch of herrings for the whole year amounted to only 256 crans. The total value was £273, giving an average value of 21s. 4d. per cran.

With the meagre earnings obtained at herring fishing in this district for some years past, it cannot be expected that fishing craft and other appliances can be maintained, renewal of worn-out craft and gear being entirely out of the question.

Most of the boats employed at herring fishing in the district are aged and well worn, and cannot possibly last much longer. The outlook for the future prosperity of the district is, therefore, not at all bright.

At the periods of the year when line fishing was engaged in, very satisfactory catches of cod, codling, and haddock were secured when suitable weather prevailed. Good supplies of those fish were caught upon the inshore grounds in the vicinity of Lybster and Clyth, and some of the most persevering crews at Lybster had at times remarkably good earnings.

Unless some very unexpected change takes place, it would appear as if the fishing of this district will, in the near future, be confined to line fishing on a very moderate scale.

Towards the close of the year one of the Lybster crews was provided with a small motor-propelled craft for the purpose of prosecuting the line fishing. There is little doubt of its success, so long as good supplies of fish are to be got. After the first trip was made it was discovered that the craft, which was an old ship's lifeboat, required to be strengthened, an undertaking which occupied some time. Through that, and stormy weather, it cannot be said to have yet had a very satisfactory trial.

There were very few coopers employed at barrel-making in Lybster during the year owing to the fact that a considerable quantity of the barrels made in 1911 were not then disposed of. It is not expected that coopering will be engaged in to any great extent in the future, as the arrangements made two years ago for its continuance have been abandoned.

Fortunately, no serious accident involving the loss of life or property happened during the year in connection with the fishing industry of the district.

The fishery barometer at Lybster Harbour is in good order.

FISHERY OFFICE,  
WICK, 4th January 1913.

JAMES RITCHIE,  
Fishery Officer.

*Wick District.*

The most important feature of the fishing industry of this extensive district during the year under review was the success that attended the prosecution of the summer herring fishing at the port of Wick.

The season's catch exceeded that of any previous year by 5236 crans, and thereby formed an easy record. It is in point of value, however, that it has the greatest advantage over all previous years, the total value amounting to £223,000, which exceeds the previous most remunerative season by £42,716.

As in some recent years, an early start was made with the summer herring fishing. The first landing took place on the 14th May, and operations were continued for sixteen weeks, the season closing about



the end of August. The weather, which is a very important factor, was very favourable all through the season. From start to finish the fish caught were of a very satisfactory quality.

The fishing proceeded with wonderful regularity. Heavy takes were unusual, as there was only one throughout the whole season that exceeded 100 crans. It was chiefly with takes of from 15 to 60 crans that the season's total was built up.

As there was a keen demand for fish throughout the season, and the quality was satisfactory, prices were wonderfully well maintained. The range was from 5s. to 58s. 6d. per cran. All over, the average was 26s. 3d., compared with 23s. 5d. in the previous year.

To most of those engaged in the industry the season was a remunerative one. Fishermen, with few exceptions, had very satisfactory earnings. Certainly they had no reason to grumble at the reward received for the fruits of their labour and enterprise. Steam drifters had gross earnings varying from £800 to £1500, motor boats had from £860 to £1035, and sailers from £300 to £800.

For a great part of the season a large fleet of over 400 craft operated from Wick, and had the harbour accommodation been greater the fleet would have been much larger still. Were it not that a good many of the Moray Firth crews went home at the week-ends the existing harbour area would have been altogether inadequate.

With the owners and skippers of steam drifters the port continues to be popular, more particularly in June and July. A good number of those craft, therefore, wrought regularly from the place. The most productive fishing grounds were 18 to 40 miles off from E. by N. to E. by S., and 60 to 70 miles east.

For several weeks in the early part of the season the weather conditions were favourable for the sailing craft, enabling them to make trips to and from the fishing grounds daily, and it was interesting to observe how they were for a time successful in competing with the steam-propelled craft. Unfortunately for the crews of the sailers, that position was not maintained after the weather became more unsteady and the fish moved further seawards.

It would appear as if the winter herring fishing on this coast is to give out altogether. For a number of years past it has been gradually declining, and last year it was practically a failure. Early in the year about a dozen local crews worked for some weeks, but were so unsuccessful that its prosecution had to be abandoned.

Now that the herring fishing is commenced at such an early date upon the East Coast, Scrabster, as a fishing station, is almost completely neglected. As a matter of choice, fishermen prefer working on the East Coast. They require considerable inducement to proceed to the grounds west of the Orkneys, and consequently Scrabster received little other than stray shots from boats making a passage to or from the West Coast.

The sending of herrings preserved in ice and salt to Hamburg has now been engaged in from this district for three seasons. About 5800 crans were disposed of in that manner during the past season, compared with 5175 crans in 1911. Had the value of herrings not reached such a high figure there is little doubt that this branch of the industry would have been further developed.

So keen was the demand for cured herrings, and so briskly was shipping proceeded with, that by the end of September only a very trifling quantity remained on hand. Of the herrings shipped direct to the Continent, 57 per cent. went to German ports and 43 per cent. to Russia. The quantity despatched to America was probably the greatest that has ever been sent from this district.



Wick, as an important fishing centre, is somewhat handicapped by not having a good strong local fleet. The means of capture of the district still tends to decline, although during the past year the equipment was fairly well maintained. To make good the wastage that took place, a good number of first-class boats were purchased from various Moray Firth ports.

Meantime there is no indication that the number of steam drifters belonging to the district is likely to be increased in the near future. For several years past the number stood at 14. Two were sold away from the district last year, while one was brought to the district by a new company, so that the number is now only thirteen.

A considerable advance was made during the year with the application of motor power to fishing craft. One large Zulu boat was fitted up with a Gardner engine; sixteen small boats of from 14 to 35 feet keel were also equipped with engines, chiefly of the Kelvin make. Three of these boats, of 35, 34, and 22 feet keel respectively, were specially built for the reception of motor engines, the others being craft that had previously been propelled by sails and oars. There are now two large and eighteen small motor vessels owned in the district. The two large boats had gross earnings of £1500 and £1430 respectively for the summer and English coast fishings. Most of the small craft are chiefly employed at line fishing. For that work they are very well adapted, and when in the hands of capable men they are quite a good investment. There is every prospect of their number being increased.

The total quantity and value of fish landed in the district show considerable increases when compared with 1911, and it is to the successful summer herring fishing, the higher prices obtained for the herrings, and the greater landings of cod and codling, that the increases are attributable.

Cod-net fishing, which is one of the newest methods of fishing engaged in, was conducted chiefly during February and March, 14 local crews, who manned two steamers and a dozen sail boats, being employed. A number of crews from other districts also worked off the Caithness coast, and frequently landed their catches at Wick. The results were by far the most satisfactory that have been obtained since that mode of fishing was commenced.

Thirteen of the district-owned steam drifters, two motor boats, and five sailers took part in the English herring fishing, steamers having gross earnings of from £500 to £900, motors £440 to £570, and sailers £150 to £330.

There was a slight increase in the number of district curers who conducted business at Yarmouth and Lowestoft. At those ports the season was one of unprecedented success owing to the immense supplies of herrings that were put upon the market, and the fact that the demand for cured herrings was equal to the supply, large though it was. Remunerative prices were therefore realised, and it is generally admitted that the season was a very profitable one to all concerned.

All through, there was a busy year at barrel-making in Wick. An unusual demand was created by the successful fishings upon the Scotch and English coasts, and stocks were completely exhausted. Up to the commencement of next summer's fishing a busy time will be experienced in replenishing stocks. It is expected that some difficulty will be experienced in procuring supplies of stave-wood and hoops. Prices for all classes of barrel-making material are advancing owing to the great demand that exists.

The Wick Harbour improvement scheme, commenced five years ago, has not yet been completed. Some sections of the work were much more costly than was estimated, while, at the same time, some

unfortunate hitches were experienced. It is understood that the loan and grants received are pretty well expended.

The lack of sufficient harbour accommodation is a great hindrance to the development of the port. Were it more commodious a much greater number of fishing vessels would frequent it than can possibly do so meantime.

Three men belonging to Thurso were drowned through the foundering of a small boat when returning from the fishing grounds.

No serious loss of or damage to boats or fishing material was sustained during the year. With the excessive crush that frequently occurred about Wick Harbour, slight damage to boats was sometimes unavoidable.

All the eleven fishery barometers on the Caithness coast are in good order and well cared for.

JAMES RITCHIE,  
*Fishery Officer.*

FISHERY OFFICE,  
WICK, 4th January 1913.

*Orkney District.*

The results of the district fisheries during the year under review were very satisfactory, and show an improvement over the figures for 1911—which was a record year—to the extent of 114,938 cwts. in the quantity and £80,069 in the value of fish landed. Herrings were wholly responsible for this gratifying result, contributing 94 and 95 per cent. respectively of the total catch and value. The returns of the other branches of the industry exhibit a falling-off both in quantity and value when compared with the figures for 1911.

In the means of capture returns there is very little change. A slight decrease is observable in the number and tonnage of boats, caused by old third-class boats being laid aside or broken up as unseaworthy, while the only change towards improvement was the fitting up of two additional line boats with motor engines for auxiliary propulsion. Up to the present the district fishermen have made no movement to have motors installed into their herring-fishing boats, although in this district, where the fishing grounds are only a moderate distance off, motor boats would undoubtedly be of immense service.

Taking for granted that the proposed close time for herrings would be adhered to on the East Coast, several curers took stations at Stromness with the hope of reviving the fishing there. One curer engaged a few crews of fishermen to fish for a fortnight. These engaged fishermen made several trials, but as they met with poor success, and it being evident that the proposed close time was not to be observed, operations were suspended at Stromness, and the curer and the fishermen proceeded to Stronsay in order to participate in the fishing there. The total catch landed at Stromness amounted to only about 80 crans.

The great summer herring fishing in Orkney waters is becoming of greater importance every year, and the results of the past season have beaten the 1911 record by 38,851 crans in the quantity and £84,892 in value. This gratifying improvement was entirely due to the successful operations of an increased number of Moray Firth steam drifters operating in Orkney waters and landing their fish in the district. As in former years, Stronsay was the chief centre at which the herrings were landed. Of the total catch of 154,605 crans landed in the district, 123,982 crans, or 80 per cent., were landed at Stronsay, while the remaining 20 per cent. was pretty equally divided among Kirkwall,

Holm, Burray, and Sanday. Several East Coast curers, who were hopeful of attracting a fleet of boats to operate from Kirkwall, erected new stations at Carness at a cost of about £600 per station, and made pretty extensive preparations in expectation of a successful fishing. Owing to the exposed nature of these stations, however—especially with strong westerly and north-westerly winds—fishermen sometimes refused to land their fish at the Carness stations, preferring to accept a lower price for their herrings from the curers who had stations in the town, rather than run the risk of having their boats damaged at the new stations. This circumstance, along with the fact that Kirkwall is a greater distance from the fishing grounds than Stronsay, were the chief causes which prevented many fishermen from visiting the place; the small fleet which did frequent the place gradually dwindled away, and the season closed early in August with disappointing results to the curers.

On the other hand, the fishing from Stronsay was carried on with vigour, and was attended with considerable success. Notwithstanding the proposed close time, the fishing commenced about the middle of May—a week earlier than in 1911—and was continued till the end of August. The fleet engaged was composed chiefly of Moray Firth steam drifters, and varied in number throughout the season from 50 to 300. Of the total catch, 78 per cent. was landed by steamers, 20 per cent. by sail boats, and 2 per cent. by motor boats.

The principal fishing grounds were from 5 to 10 miles off Auskerry and Copinshay, and 30 to 60 miles south-east and east-south-east from Stronsay; the highest takes and best quality came from the more easterly and more distant grounds. During the first few weeks the herrings landed were of very poor quality, but of a firmer nature than the early herrings landed during the previous year. Owing to the cool weather then prevailing, the moderate catch being landed at the different big centres, and to the Continental markets being in a healthy state, fishermen found a good market for their early herrings; but there were a number of curers who refrained from curing them.

Prices for May fish ranged from 5s. to 19s., the average price being 12s. 6d per cran. For herrings landed in May, 1911, the average price was only 6s. 8d. per cran.

As the season advanced and the quality improved, the demand became very keen, and prices were maintained at a high level until the end of the season. By the end of June they had risen to over £2 per cran, while towards the end of the season prices for spent herrings seldom dropped below 30s. per cran. The average price per cran for the whole season was 28s 10d., against 23s. 10d. in the previous year. In former years all the herrings landed at Stronsay were cured gutted, but for the first time in the history of the place a commencement was made at "klondyking," or exporting fresh herrings in boxes with ice and salt. Only one firm engaged in this branch of the industry, and two steamers were chartered to run weekly trips from Stronsay to Altona. The first trip was run about the middle of June, and regularly thereafter till the third week of August. The total quantity dealt with in this way was 17,712 boxes, or 4428 crans. Small as this quantity was, there is no doubt it exercised an important influence in further strengthening an already keen competition for the "green" fish, with the result that fishermen had a very profitable season. As the stranger fishermen were continually moving about and landing their takes at the different ports, it is difficult to estimate their earnings. The local fishermen operating with sail boats did very well. Their earnings ranged from about £300 to £600 per crew, while the average would be about £480.



The high prices paid by curers for their fish caused a number of them to sell off the cured article as quickly as possible during the season, even at a very small margin of profit, for fear the markets might take a slump and leave them with a lot of dear herrings on their hands. Some of the more speculative curers, however, kept the bulk of their cure to the end of the season, and, as the price of cured herrings took a sharp rise towards the end of August, these curers finished up with a handsome profit.

With the exception of a small quantity kippered at Kirkwall, and the 4428 crans which were exported fresh to the Continent, all the herrings landed were cured gutted. Of the 187,205 barrels cured, 155,040 were exported direct, and the balance shipped coastwise. Of the direct exports, Russia received 54, and Germany 46 per cent., but of those sent coastwise the greater number found their way to the German markets.

The completion of the new pier by the Harbour Commissioners—towards the erection of which the Fishery Board contributed £3000—along with the three new stations, with landing-stages, which were erected by curers at Papa, went a long way towards relieving the congestion at Stronsay, but on many occasions throughout the season the urgent need of deepening the channel and of more pier accommodation was painfully evident. It was quite a common occurrence to see from 30 to 60 steam drifters on the ground for two hours in the channel before they got water into the harbour, while it frequently happened that scores of boats were forced to wait sometimes from six to seven hours in order to get a discharging berth, which caused them often to lose a night's fishing. On very busy days some of the crews preferred to salt their catch and proceed to sea again rather than wait for a berth and lose a night's fishing.

The Harbour Commissioners, however, are fully alive to the urgent requirements of the port, and with the aid of a grant of £10,000 which they have been promised from the Development Fund, they have decided to go on with a scheme of development which will cost £20,500. The scheme is to extend the old pier 300 feet and the new pier 200 feet, at a cost of £13,000, while the channel and harbour basin is to be dredged at a cost of £7500.

Since the close of the summer fishing, ground for a new curing station has been taken at Papa, but until the schemes referred to are sufficiently advanced to give accommodation to a fleet of boats able to supply the demands of the curing power already at Stronsay, the further development of the port as a fishing centre will be greatly retarded.

The following table shows the development of the herring fishing in the Orkney district during the past four years:—

Year.	Total Crans landed.	Total Value.
1909	45,462	£59,259
1910	93,089	92,543
1911	114,753	136,760
1912	154,605	221,652

The landings by English trawlers, which consisted chiefly of cod from Icelandic waters, were all used for curing purposes, and exhibit a decrease of 13,308 cwts. in quantity and £4580 in value from the figures for 1911. This decrease is attributed to the national coal strike, which caused a number of trawlers to be laid up for several weeks, with the result that no trawled fish were landed during April, whereas in former years considerable quantities were landed during that month. On the other hand, the quantity landed by foreign trawlers and Faroe smacks—which is not accounted for in the returns of fish landed as stated



above—exceeded the figures for 1911 by 12,765 cwts. in the quantity and £4363 in value.

Prices for trawled fresh gutted cod ranged from £7 15s. to £8 5s. per ton, while Faroe wet salted cod realised from £15 to £16 per ton, the bulk of the landings being sold at the latter figure. These prices show an advance of about £2 10s. per ton over those of the previous year.

Line fishing by local fishermen was carried on in the usual desultory fashion. The results for the year were about the average, and show little variation from those of the preceding year.

Lobster fishing was prosecuted from almost every creek in the district, principally during April, May, June, and September. This fishing has been declining for some years back, and the year under review was no exception.

Fortunately no lives were lost during the year in connection with the fisheries, and the damage done to boats and fishing gear was small.

FISHERY OFFICE,  
KIRKWALL, 6th January 1913.

A. J. MUNRO,  
Fishery Officer

*Shetland District.*

The returns for this district show an increase of over 19,000 cwts. and £95,830 as compared with the figures for 1911. This increase is more than accounted for by the improvement in the quantity and value of herrings, which compose about 94 per cent. of the total yield of the district fisheries.

The means of capture returns again show a decrease in the number of first-class sail boats, principally on the north and N.W. coasts; but there has been an increase in the fleet of second-class boats, both sail and motor. The number of locally-owned steam fishing vessels remains the same as in 1911.

The winter herring fishing was commenced early in February, but the fleet engaged was much smaller than in the preceding year, and never reached a dozen boats at one time. Very heavy catches were got off Unst in February and March. The season's total was 3190 crans, at an average price of 14s., as against 7000 crans at 12s 8d. in 1911. The range of prices was from 10s. to 56s., the latter figure being given for herrings for bait. About 1260 barrels were cured, and the balance purchased for kippering or for bait. Several consignments of frozen herrings were sent to Faroe to be used as bait by the cod fishermen, the Danish mail steamers calling for them as required.

Before the end of April boats had begun to gather at Lerwick for the great summer herring fishing, and by the end of the first week in May about 100 boats were working. Before the end of the month the fleet had increased to fully 400 craft, mostly steam drifters, and for the 13 principal weeks of the fishing an average of 440 boats fished from the port. Herrings were not very plentiful in the beginning of May, and this, no doubt, prevented a collapse of prices such as was experienced at the beginning of the previous season. For the first three weeks the average price per cran was from 12s. 6d. to 17s., but heavy landings during the fourth week brought the average down to 8s. 6d. per cran. With the beginning of June, however, the market recovered, and a keen demand set in, with steadily-advancing prices. For the first fortnight in June the average price was over 27s., and by the end of the month it had risen to 35s. This rate was maintained throughout July. For the month of August the average price was fully 30s., and for the season from 1st May to the end of August the average price at Lerwick was 27s. per cran, against 22s. in 1911. From a fisherman's point of

view, the season was a most profitable one till about the end of July. In August rough weather interrupted the fishing week after week, and hastened the departure of the steam drifters. A steadily-decreasing fleet of local sail boats continued fishing till late autumn, but their operations were greatly hindered by the stormy weather.

There was a welcome revival of the fishing in Scalloway Bight and St. Magnus Bay, and the herrings got in these waters were of excellent quality. The quantity landed at Scalloway was more than double and the value almost four times as much as in 1911. As a result, all the available curing ground in Scalloway has been taken in preparation for next season. Thirteen curing stations were opened at Baltasound, and there were about 100 boats fishing, mostly under engagements, at prices ranging from 15s. to 20s. per cran—the rates rising weekly—and generally £10 of bounty for sail boats and £20 for steam drifters. Herrings were apparently rather scarce on the usual Balta grounds, and the catch for the whole season was under 18,000 crans. This could not be regarded as indicating a profitable season either for fishermen or curers. At Whalsay, Hoswick, Levenwick, and Grutness the local fishermen did very well during the first two months of the season, but from the beginning of August onwards they were handicapped by unfavourable weather, and at the close of the season it was found that the average earnings of the local sail boats were not so good as in 1911.

A good many fortunate crews had from £500 to about £700, but others had from £300 downwards, and the average for the district may be estimated at £380. Although the steam drifters left the district earlier than usual, they had, as a rule, an exceptionally good season. The best English drifter had over £1700, several Moray Firth crews had from £1500 to £1600, and a number from £1000 to £1400, most of which had been earned in Shetland; £950 might be quoted as a fair average for steamers that worked the whole season, or about £100 more than in 1911.

Shetland-cured herrings continue to give general satisfaction in the Continental markets, and the demand seems to be increasing yearly, especially from Russia, which now takes by far the greater part of the district cure. Markets were rising steadily, and curers had a profitable season till about the end of July. In August, however, scarcity of herrings and consequent keen competition forced up prices and rendered the remainder of the season unremunerative. Almost without exception, curers disposed of their cured herrings as soon as they were ready for shipment, so stocks on hand at the end of the season were very small. The failure of the fishing in August led to a decrease in the number of barrels presented for the Crown Brand; but branded herrings were in great demand, Crown La Fulls being quoted at 41s. to 42s. per barrel from the middle of August onwards, or about 3s. per barrel above ordinary unbranded fish.

A Lerwick fishing vessel was fitted out for curing, and, in addition to quantities landed and sold fresh, the crew cured 630 barrels at sea. A Norwegian curer came to Lerwick in June, and cured between 500 and 600 barrels on board a steamer. Eight small Scandinavian vessels—motor boats and sailing craft—came later in the season, and their crews cured upwards of a thousand barrels of mackerel which they bought from British fishermen. Local fish-curers also cured a few hundred barrels of mackerel.

Two small steamers were employed for the first two months of the season carrying roused herrings to Hamburg, and nearly 5000 crans were thus exported. Two large Leith steamers traded regularly between Lerwick and Hamburg all through the season, and these vessels proved a great convenience to curers and merchants.

Including over 300 tons of trawled fish brought from Iceland, the quantity and value of cod, ling, etc., were about 25 per cent. greater than in 1911. There was a decrease in great-line caught fish, but great quantities of cod, saithe, etc., were caught by the herring fishermen in summer, nearly 1000 tons of hand-line caught fish having been landed at Lerwick during the season. The Foula fishermen, who tried "ripper" fishing for the first time in 1911, had again a very successful season, realising over £400 for their hand-line fish.

Of all the fisheries of the district, the most unsatisfactory returns were got from the small-line fishing. As compared with the preceding year, there was a decrease of over 30 per cent. in the quantity and value of haddocks landed, due largely to stormy weather during the first and last quarters of the year. The greatest falling-off was at Scalloway and neighbourhood, where, owing to the prevalence of westerly gales, the landings amounted to barely a third of the previous year's catch.

The four local steam drifters went to England in the autumn, and averaged £700 at the herring fishing there. For the whole year their earnings averaged £1741, or about £220 per boat for each month they were employed.

Coopers had a busy year. Both the local barrel factories were working up to their full strength, and local fish-curers had over 100 men making barrels both before and after the herring fishing. The large stocks of barrels and salt that were left over owing to the early close of the Shetland fishing were all required for the English stations.

Boat-builders were busy till the last quarter of the year. Work then became slacker owing largely to the poor returns from the haddock fishing, which no doubt discouraged fishermen from ordering more motor skiffs for the present.

With the exception of the drowning of a young English fisherman who fell overboard, there were, fortunately, no fatal accidents during the year. One local herring boat ran ashore and was wrecked during a dense fog. The loss of fishing material was not serious considering the extent of the fisheries of the district. Some damage was done to herring nets by British war vessels, and most of the fishermen's claims are being paid by the Admiralty.

Considerable attention is now being given to the teaching of navigation to fishermen in Shetland. At an examination held in spring, 14 students obtained skippers' certificates, and 7 got certificates of competency as second hands. A number of local fishermen have obtained service certificates. This winter, classes are being held at thirteen centres in the district.

The fishery barometers, of which there are eight in the district, are generally well attended to.

A contract has been entered into by the Lerwick Harbour Trust for improvements and additions to the existing harbour works, including a dock to shelter small fishing boats. The cost is to be about £34,000, and it is expected that it will take three years to complete the work.

FISHERY OFFICE,  
LERWICK, 7th January 1913.

R. DUTHIE,  
*Fishery Officer.*

### III.—WEST COAST.

#### *Stornoway District.*

Herrings were landed in varying quantities from January to December inclusive. The aggregate catch showed an increase of



35,986 crans in quantity and £65,035 in value, as compared with the totals of 1911. The figures for the past six years were:—

1907	..	..	..	..	..	100,018	crans.
1908	..	..	..	..	..	86,549	„
1909	..	..	..	..	..	80,185	„
1910	..	..	..	..	..	54,081	„
1911	..	..	..	..	..	45,319	„
1912	..	..	..	..	..	81,305	„

The Minch yielded good results, and the vessels that continued fishing in these waters during the summer and autumn months had excellent earnings; 3486 crans of herrings roused in barrels, imported by carrying steamers from other districts, were cured for export. None of the local boats went to the Shetland, East Coast, English, or Irish fishings during the year. Hired men and women workers, who were employed at other stations from Shetland to Suffolk, earned more, on an average, than they ever did in any other season heretofore.

Line fishing was prosecuted with fair success during the early part of the year by steam vessels hailing from other ports, but the total catch was less than in 1911 owing to local craft being less successful throughout the district.

The quantities landed from 1907 to 1912 were:—

1907	..	..	..	..	..	76,382	cwts.
1908	..	..	..	..	..	77,960	„
1909	..	..	..	..	..	109,121	„
1910	..	..	..	..	..	119,582	„
1911	..	..	..	..	..	97,690	„
1912	..	..	..	..	..	83,129	„

Trawlers frequented the port occasionally, but less trawled fish was landed than in former seasons. A number of steam liners made regular calls for herring bait when proceeding to the West of Ireland, St. Kilda, and Rockall fishing grounds.

The larger-sized boats are getting fewer, several having been struck off the register during the year, and none of this class was replaced. A steam trawler which belonged to this port for a time in 1911 was sold to Aberdeen. Tonnage and value, therefore, as well as fishing gear, show a decrease. Two steam drifters and a new boat of 40 feet keel, with motor power, were acquired by Stornoway owners in December, 1912.

Three second and two third class boats were built in the district. A number of small boats were, however, acquired by local fishermen from Orkney for fishing purposes.

The winter herring fishing was commenced during the week ended 6th January by 9 steam and 4 sailing vessels, and terminated towards the end of March. The highest number of boats employed at one time was 32 steamers and 17 sailers. Although the fleet was less by a half as compared with the previous season, the shortage in the catch was only 2059 crans. The quality was much better than in 1911. The best-fished steam vessel grossed £540, while several had from £300 to £400, the average being £350. Sailers averaged £137, and smaller sailing craft £49. The average price per cran was 16s.

The summer herring yielded better results than for several seasons past. The highest number of boats employed was 106 steam and 110 sailers. The former had practically all left for other districts by the end of the first week in June, the sailers following immediately thereafter, but the fishing was continued, chiefly by local boats, with fair success. In July a number of steam vessels returned from the East Coast, and for two weeks in August 100 steam vessels were em-



ployed, as well as several motor boats, which had also come from other districts. A number continued fishing up to the 14th September, when they again took their departure.

Again in December a number of steam vessels arrived at this station and landed good takes of herrings from the fishing grounds off Tolsta and Broadbay. The best single catch was 200 crans by a B.F. drifter. Towards the end of December takes of from 100 to 140 crans, obtained in Loch Bracadale, in Skye district, were common. On the 26th December 21 steam drifters landed an average of 81 crans of herrings of good quality, which realised 27s. per cran for curing purposes. The average price per cran from May to December inclusive was 29s. 5d.

Mackerel were fairly abundant in the Minch during the winter and summer months, herring boats sometimes having more mackerel than herrings in their nets. 1500 barrels were cured for export to America, a considerable increase on any other year since mackerel were first cured at this station.

Cod and ling fishing by local boats at the different creeks throughout the district is still on the decline. Port of Ness, which at one time flourished as an important station, accounted for only a small quantity cured by a few of the fishermen there. Seventeen line boats were unlaunched during the year.

Shell-fish returns exhibit a slight increase as compared with 1911. Lobster fishing was prosecuted at South Harris with a fair measure of success. The Sound of Harris produces better lobsters for size and quality than any other creek or station in the district.

FISHERY OFFICE,  
STORNOWAY, 9th January 1913.

ALEX. SUTHERLAND,  
*Fishery Officer.*

#### *Barra District.*

The aggregate results of the fisheries for the year just closed show a marked decrease. This falling-off is the more disquieting when it is remembered that the preceding year's results were the poorest recorded for the past decade. The total quantity and value of fish landed (exclusive of shell-fish) amounted to 80,999 cwts. and £37,831. Compared with the preceding year, this result shows a decrease of 43,962 cwts. and £3867. This diminution is chiefly accounted for by the failure of the autumn herring fishing. Line fishing shows a considerable increase. The shell-fisheries realised £6142, an increase of 7 per cent. on the previous year's figures.

Owing to the present depression in the district fisheries there has been practically no change or modern developments in the means of capture. The number of fishing boats shows a slight decrease. The extent and value of fishing gear remain much the same as in the previous year. With the exception of one auxiliary motor boat, the entire fleet still consists of sailing craft.

White-fish fishing commenced early in March and extended well into June. During the greater part of this period favourable weather was experienced, and line fishermen were actively engaged. Cod and ling appeared to be in abundance on the coast, and consequently a satisfactory fishing was experienced. The general fishing grounds were from three to seven miles E. to S.E. from the island of Muldoanich and the vicinity of Pabby Bank. During the latter part of the season several boats fished with considerable success in the vicinity of White Strip shoal south-west from Barra Head. Only native fishermen participate in the great-line fishing. The average gross earnings were £113 per boat, against £56 per boat for the corresponding season in the preceding year.

The summer herring fishing, which commenced on the 11th May, was a comparatively short one, lasting only six weeks. The fleet engaged consisted chiefly of sail boats. Weather conditions were, on the whole, favourable, and the fleet were able to prosecute the fishing with regularity. At the beginning of the season the fishing grounds frequented were Skerryvore, Coll Bank, and Canna. Light catches were the general rule, only an occasional shot of any consequence being landed. During the first half of June shoals of herring appeared on the inshore grounds between Eriskay and Muldoanich, and within the short period during which the fish remained on the coast many splendid shots of fish of good quality were secured. By the end of June the weather became unsettled, and as fish were getting scarce on the coast, the larger number of stranger crews, considering the early fishing over, left for their respective home ports.

The autumn herring fishing was a failure, yielding only 3858 crans, compared with 12,350 crans in 1911 and 16,975 crans in 1910. A series of gales and contrary winds made fishing very irregular. Results were accordingly discouraging, and as favourable fishing reports were received from the East Coast herring fishing centres, most of the stranger boats left early for home. The majority of the fish-curers also closed their curing stations earlier than usual. The remainder of the fleet, which consisted of sail drifters, were for the greater part of the season lying in port. On the few occasions when weather permitted fishing was engaged in, but without success.

The earnings of fishermen engaged in herring fishing were considerably higher than in the preceding year. The average gross earnings for the first-class local sail boats were £280, compared with £131 in 1911. The highest individual gross earnings amounted to £525, and the lowest to £215. Only one motor boat belongs to the district, and this vessel had gross earnings amounting approximately to £500. The few East Coast sail boats that remained in Barra until September grossed on an average £405, against £192 in 1911. The maximum earnings by these stranger boats were £716, and the minimum £310.

The shell fisheries of this district are of considerable value and a source of regular employment for 17 per cent. of the fishermen. Although the fishing was much hindered by unsettled weather, the aggregate results compare favourably with those of the previous year. The most remunerative period is during May, June, and July, and the best fishing grounds are on the coast of North Uist, Benbecula, and the vicinity of Barra. The gathering of unclassified shell-fish was prosecuted with average results. Cockles constitute approximately 70 per cent. of this class of fish. During the early part of the year a considerable quantity of cockles was destroyed owing to delay, caused by stormy weather, in bringing the fish within reach of the consumer.

The aggregate gross earnings of the fishermen belonging to the district for the year under review were considerably higher than in the previous year. Although the total quantity of fish landed was much less, a larger proportion than usual of the catch was secured by local boats. This, in conjunction with the high prices which prevailed, returned them total gross earnings from the various branches of the fisheries of £30,400. Of this amount, the herring fishing is credited with 67 per cent., white fishing 13 per cent., and the shell fisheries 20 per cent. The figures for the preceding year were, aggregate gross earnings, £23,800, the corresponding percentages being 71 : 7 : and 22 respectively.

A. B. STEPHEN,

*Fishery Officer.*

FISHERY OFFICE,  
CASTLEBAY, 4th January 1913.

*Loch Broom District.*

In reviewing the work of this district for 1912, it is disappointing to have again to report a further decline in the quantity and value of fish landed. The only satisfactory feature of the district fisheries was the improvement in the cod and saithe net fishing, which yielded 1455 cwts. more in quantity and £241 more in value than in 1911. This, however, is the only branch of the industry which made any progress, as the herring, mackerel, line fish, and shell fish returns all show decreases. The total catch of white fish amounted to 27,334 cwts. in quantity and £8820 in value, which shows a decrease of 11,358 cwts. and £1167 when compared with the catch of 1911. The value of shell-fish landed was £281 less than last year, which makes a total decrease of £1448 in the value of the year's catch.

The means of capture returns exhibit a decrease in the number and value of fishing boats, with a slight falling-off in the extent and value of netting. Four second-class boats and two third-class boats were added to the register, but the total number returned is 18 less than last year. The failure of the herring fishing during the last few years, especially in the northern half of the district, has given the fishermen no encouragement to replace their old and useless boats, which have been struck off the register. Great lines are very seldom used now, and the number on hand is less. There is, however, an increase in the number of hand-lines and lobster creels used, as both these means of capture have lately increased in popularity.

Herring fishing throughout the district gave extremely poor results. Operations at Ullapool commenced in the third week of September, when a few shots of herrings of fine quality were landed from near Greenstone Point. The herrings found their way into Grinuard Bay, where a fleet of 30 boats worked up to 18th October, and landed at Ullapool a total of 1450 crans. These herrings were of good size and splendid quality. Prices varied from 14s. to 36s. 6d. per cran, but the general range was from 26s. to 34s. 6d., with an average of 29s. 4d. per cran. During the short period the fishing lasted one local skiff grossed £216, while a few more earned up to £100, but the fishing was over before a number of the local men could get their boats ready after returning from their summer engagements on board yachts. There was a large body of fish on the grounds, but the dogfish which were present hampered the fishermen in their work, and destroyed a considerable quantity of netting. The fishing fell off very quickly. On the 18th October a good fishing was landed, and on the following night the catch did not amount to a cran.

At Aultbea the fishing began in August and extended through September and part of October. The fishing grounds were practically the same as those on which the Ullapool fleet worked, and quality and prices were somewhat similar. The fleet, however, was small, and the catch amounted to only 620 crans.

Except in April and December, herrings were landed at Badachro every month; but here also failure was experienced, the year's catch being only 475 crans, of the value of £496.

A shoal of herrings made its appearance about Lochinver, and also in Clashnessie Bay, towards the end of November, but the weather was too stormy on such an exposed coast for the fishermen to do much with their small craft, and only a few days' fishing was possible at each place.

Herring-curing operations were carried on at Ullapool by seven firms, but too little business was done to enable them even to pay expenses. A number of steam liners were supplied with bait, which sent up prices



and shortened the supply for curing. At Badachro four firms cured herrings, but as the fishing was light little was done until towards the end of the year, when two firms imported 1100 crans of roused herrings from Skye lochs and cured them at Badachro for the Continent, an enterprise which deserved success. The bulk of the catch was cured for America and the Continent, and was shipped *via* Glasgow and Leith.

Direct exportations consisted of 603 barrels of herrings to Könisberg which were cured in 1911, and 340 cwts. of dried cod and saithe to Belfast. The latter was a new venture, and met with fair success.

Line fishing, which is prosecuted for local requirements only, and consequently can never reach a position of any importance, shows the large decrease of 1236 cwts. in quantity and £292 in value.

The shell-fisheries, of which lobster fishing is the main source of employment, were given considerable attention by a large number of fishermen. More attention than formerly was given to whelk-gathering, which yielded £70 more than in 1911. Lobster fishermen were not so successful, but no other result could be looked for considering that their work was so frequently interrupted by stormy weather during the winter and spring months.

Another successful season was experienced by those engaged in the spring cod and saithe net fishing from Badachro. The weather was stormy and unsettled throughout the whole period, but the catch exceeded that of last year by 1061 cwts. The gross earnings of fishermen ranged from £44 to £82, with an average of £62 per boat. A local boat with auxiliary motor power was chartered for the purpose of running to Kyle with fish for the fresh markets, but little freshing was done, and the bulk of the catch was cured dried.

The second-class boats belonging to Gairloch and Lochewe were employed at herring fishing at Stornoway and Harris in summer, but had only moderate success. Their gross earnings were from £20 to £120, but with their earnings at the autumn fishings added, the range extended from £30 to £220 per boat. Four first-class boats were employed at Stornoway and the East Coast fishings, and earned from £240 to £400, averaging £290 per boat.

One of the boats with auxiliary motor power belonging to Lochinver was destroyed by fire at sea early in the year, but fortunately the crew were all rescued.

There was no loss of life in connection with the fisheries of the district.

The barometers at Ullapool and Badachro continue in good order.

JAMES MAIR,  
*Fishery Officer.*

FISHERY OFFICE,  
ULLAPOOL, 8th January 1913.

*Lochcarron and Skye District.*

The returns of the fisheries of Loch Carron and Skye district show a further falling-off in the quantity and value of fish landed to the extent of 30,455 cwts. and £2697 from last year's figures. The decrease is principally due to the smaller quantity of herrings landed.

There is a reduction of 21 boats in the means of capture returns. No less than 46 were cancelled as being unfit for sea, while 25 boats were added to the registry, one of these being a new motor skiff. Five motor engines were installed in existing boats belonging to the district.

The winter herring fishing—a continuation of the fishing of 1911—was carried on at Kyle and Uig with fair success. The principal



fishing grounds were Loch Snizort, Loch Bracadale, and off Dunvegan. A few shots were also taken from the Skerryvore grounds by steam drifters. The fishing closed about the first week of February with a total of 3020 crans, against 2727 crans for 1911.

The fact of the herring fishing returns showing a decrease of 30,026 cwts. in quantity and of £2740 in value cannot be attributed to a scarcity of herrings. No doubt the fishing, so far as Kyle was concerned, was practically a failure during autumn and towards the close of the year. A large body of fish was met with in Loch Snizort from July to October, but the fleet had to contend with exceedingly stormy weather, which hindered fishing operations, and during a lull in the fishing the fleet dispersed to other centres about the middle of October, and so far as Loch Snizort was concerned the season closed about that date. The fishing did not come up to expectations, and notwithstanding that ground was laid aside for curing purposes, the bulk of the catch was again sent to Stornoway to be cured. A dense shoal of herrings was found in Loch Bracadale during November and December, but owing to a succession of southerly and westerly gales only steam drifters and large-sized sail boats were able to operate, and these landed their catches chiefly at Stornoway and Mallaig. In fact, the principal fishing grounds of the Stornoway and Mallaig fleets during that period were in Loch Bracadale, and some exceptionally heavy takes were landed at these ports. The quantity recorded for the district is therefore infinitesimal compared with the quantity of herrings netted in these lochs. The fact that there is no pier suitable for the landing and curing of fish no doubt accounts for the smallness of the catch recorded, and owing to the uncertainty attached to the lochs fishing curers will not risk the construction of curing stations in the district. The quality of the herrings caught in the various lochs until about the first week of December was exceptionally good, and especially was this the case with the fish caught in Loch Bracadale. A keen demand prevailed, prices ruling from 18s. to as high as 36s. 6d. per cran. The average price for the year was 20s. 10d., against 16s. per cran for 1911, which accounts for the small falling-off in value compared with the decrease in the quantity of fish landed. An interesting feature was the success met with by the district motor boats. These craft had one of the best seasons on record, their earnings ranging from £300 to £500 per boat. The greater part of their income, however, was earned outside the district, principally during July and August, at Stornoway and Harris, where good shots, which fetched high prices, were secured. Sail boats were not so fortunate, the most successful grossing about £180, while a large number made only from £50 to £90. The bulk of the district fishermen therefore had rather a poor season, but the majority do not depend entirely on fishing, many being employed on board yachts during the summer, while the majority of them own crofts,

The mackerel fishing shows a further decrease of 1248 cwts. in quantity and £51 in value from last year's figures. The fishing was carried on as usual from Kyle and Portree during September and October. The fishing ground was in the vicinity of Raasay. One hundred and seventy-eight barrels were cured and sent *via* Liverpool to America, but up to the close of the year they remained unsold. The average price of mackerel was 14s. 9d. per cran.

Line-fishing shows results similar to those of last year, and was principally engaged in to supply local requirements. Hake appeared to be more plentiful about the island of Raasay, a fair quantity being secured in cod nets.

Lobster-fishing was engaged in at most of the creeks in the district,

with results similar to last year's. Crab-fishing returns also show little or no change.

Basket-making was actively engaged in at the factory at Kilmuir, the output being 6102 baskets, as against 1696 last year.

Fortunately, there were no lives lost in connection with the fishing industry in this district.

JAMES YOUNG,  
*Fishery Officer.*

FISHERY OFFICE,  
KYLE, 8th January 1913.

*Fort-William District.*

An examination of the past year's results reveals the gratifying fact that the expansion in the total yield of the fisheries of this district—so marked in recent years—continues, a record increase having occurred. When contrasted with the figures for 1911, the total shows an improvement of 23,568 cwts. in quantity and £15,658 in value, exclusive of shell-fish. Unfortunately, however, it has again to be noted that this satisfactory result is confined to Mallaig—the expansion at this creek being more than equal to the quantity recorded above, and only slightly short of the total increase in value. Beyond that mentioned above, the one special feature of the year's operations was the somewhat abnormal landings of herrings at Mallaig, from Loch Bracadale and vicinity, during the month of December, and the high prices realised.

In common with those of other districts, fishermen are becoming alive to the necessity of some auxiliary motive power in the smaller craft, and the past year has seen the motor fleet more than doubled, making eleven now registered from the port. Various engines have been adopted, ranging from 7-9 to 60 b.h.p., and £70 to £500 in value. A feature of this movement is that it is confined to fishermen who have migrated from other districts. Otherwise the means of capture returns show little change.

During the first quarter of the year a number of steamers prosecuted the winter herring fishing from Mallaig and Oban with very moderate success. The landings were nearly 3000 crans short of those recorded for the same period in 1911. The falling-off was chiefly at Oban, where the failure of the fishing on the Irish coast was largely felt. A higher average value per cran to some extent compensated fishermen for the shortage. The early summer herring fishing was, as usual, started early in May, when a fleet of about 35 steamers operated between Mallaig and Oban. The former was again the favoured landing port, securing over 4000 crans out of a total of 4892 crans for both ports. On one occasion over 100 crans were brought from Mallaig to Oban by fishing-boats. In quantity this fishing proved very unsatisfactory, and shows a decrease of nearly 2000 crans from the moderate results of 1911. Here again enhanced prices modified the otherwise poor results. As in the last few years, the best fishing was secured after the middle of June, when the fleet, as usual, had mostly left for other ports. During the last fortnight of that month two steamers which had stayed on realised good earnings. Herrings were more plentiful, quality improved, and prices were high. One vessel landed 72 crans at 53s., realising about £200 for the shot. These two crews were perhaps the only ones that earned remunerative sums for the time spent on the West Coast. During the remainder of the year an irregular fishing was landed at Mallaig, there being no absolutely blank week, except during

April. In the month of October a few boats made several more or less successful attempts at loch fishing, and in a few cases some good results were obtained. Before the end of October bad weather intervened, and throughout the rest of the year a succession of gales was experienced. After the return of steamers from the English coast a large body of herrings was located in Loch Bracadale, which speedily attracted a large fleet. In spite of exceptionally severe weather, some remarkable landings were made at Mallaig from this loch, and with unprecedentedly high prices ruling for winter herrings, some abnormal earnings were made by lucky crews in a short time. Some crews earned up to £700 for a fortnight's work, and with only a few shots at that. Shots realising over £100 were very numerous. Quality generally was good, and prices ruled high, ranging up to 72s. per cran. For comparison, dividing the year into first quarter, second quarter, and the last six months, it may be stated that the average prices realised were 19s. 4d., 26s. 10d., and 28s. 2d. per cran, and for the corresponding periods of 1911 were 15s. 10d., 20s. 7d., and 19s. 10d.

During the early summer fishing, kippering was carried on at Mallaig by three firms, but the quantity so treated was only about half as much as in the previous year.

Eleven different firms engaged in curing for the Continental markets. Four of these operated at Oban during May and June, but the light landings prevented any great success being attained, something less than 800 barrels being filled. At Mallaig, however, this branch was carried on by a few firms until the late autumn. Returns for the limited quantity were very satisfactory, some high prices being obtained, best June parcels realising up to 75 marks.

Great-line fishing was successfully prosecuted from Mallaig and Oban during the first quarter of the year. At the former port a fleet of nearly forty steamers and three motor boats was engaged, the ordinary sail boats being conspicuous by their absence. The usual fishing grounds were exploited with much the same success as in previous years, but with a better demand prices were higher, and earnings during the first two months correspondingly greater. Stormy weather greatly interrupted fishing in February, while the abnormal rise in the price of bunker coal at Mallaig in March, consequent on the coal strike (from 24s. 6d. to 35s. per ton), had a very adverse effect, and was largely responsible for the cessation of fishing operations by many boats earlier than would have been the case under ordinary circumstances.

Only a few boats worked from Oban, and they were fairly successful. Their landings were augmented by some stray shots from the Mallaig fleet, especially when the effects of the coal strike made themselves felt. At Oban bunker supplies were generally maintained by the Railway Company at the normal figure of 18s. 6d. per ton. Earnings for steamers ranged from £300 to nearly £700, with an average of over £500, while motor boats earned from £170 to £440.

Only very moderate success attended the efforts of the small line boats. During the fall of the year their operations were almost entirely suspended through bad weather. There are now 10 motor boats largely engaged in this branch.

The landings of trawl fish at Oban show a considerable decrease. Only three vessels were employed, and fish were found very scarce.

The value of the shell fisheries shows a slight improvement.

The kippering houses at Oban mentioned in last year's report are now completed, but owing to some legal difficulties were not occupied for the May fishing. These have been again let, and are expected to be in operation whenever regular supplies of herrings at Oban are reasonably assured.



At Mallaig additional offices for the use of the trade are in course of erect'on, and will be completed shortly.

The barometer at Mallaig continues in good order.

FISHERY OFFICE,  
OBAN, 9th January 1913.

JOHN GLEN,  
*Fishery Officer.*

*Campbeltown District.*

When compared with the results of the preceding year, the total quantity and value of fish landed in this district during 1912—exclusive of shell-fish—show a satisfactory increase. This is due solely to the success which attended the prosecution of the herring fishing—particularly during the autumn months—as there is actually a large decrease in the quantity and value of line fish landed. The increase in the value, owing to the exceptionally high prices generally realised for the herrings, and also in some measure to the scarcity of line fish, is more marked than in the quantity, the average price per cwt. being 6s. 11d., against 5s. 2d. for 1911.

With regard to shell-fish fishing, there is little worthy of note in connection with the year's results. At a number of creeks the fishermen confined their operations entirely to the capture of lobsters, and earnings similar to those of 1911 were made. For the year, the total value of all kinds of shell-fish landed in the district amounts to £2702, which is £19 less than that for the preceding year.

The means of capture returns show a reduction in the number of boats, but the catching power of the fleet has undoubtedly increased owing to the installation of motor engines in a large number of the herring boats. There are now 72 boats with motor power belonging to the district—an increase of 25 on last year's number. The few fishermen who are still pursuing the herring fishing in boats which are not fitted with motors are finding that it is becoming impossible for them to maintain a satisfactory position without the aid of auxiliary motor power.

Herring fishing—principally by seine nets—engaged the attention of most of the fishermen of Campbeltown and Carradale throughout the whole year. During the first two months of the year a good deal of stormy weather was experienced, and consequently the fishermen were often compelled to remain ashore, with the result that the total catch for that period was very small. An improvement, however, took place in the month of March, and from that time on to the end of July the boats were more regularly at sea, and, as herrings were found to be plentiful in Kilbrannan Sound, good fishings were made. Very little was done in local waters in August, as the fleet was engaged on the Ayrshire coast during the greater part of that month. On their return to home waters, the fishermen located large shoals of herrings, and throughout the months of September and October the best fishings of the year were got. After October, however, little was done, as the boats were seldom able to be at sea on account of stormy weather, and consequently the total catches for November and December respectively were light.

Drift-net fishing was carried on by several crews during the year, but the results generally were not encouraging, although one or two crews made fairly good earnings.

The most noteworthy feature in connection with the herring fishing was the exceptionally good quality of the herrings caught during the latter half of the year. This caused a keen demand on shore for curing



purposes, and very high prices were therefore realised. For the year the average price per cran stands at 24s. 1d., an increase of 7s. on the average value per cran of last year's catch.

Curing for exportation was carried on from the beginning of July to the end of the year whenever supplies could be procured. The quantity dealt with in this way amounted to over 3000 barrels, all of which were shipped coastwise to Glasgow for exportation, principally to America and the Continent.

Most of the herrings, however, which were caught in the district were purchased at sea and taken direct to Glasgow market in a fresh state by the freshening steamers engaged in that trade.

Line fishing was not prosecuted very extensively throughout the district during the year, and the total quantity of fish taken by this means shows a decrease of 22 per cent. when compared with the corresponding figures for 1911. At Gigha and Portnahaven cod fishing by great lines was, as usual, carried on for a few months early in the year. The success met with at both places was only moderate, no large body of fish having been located on the fishing grounds at any time. Several crews belonging to Portnahaven were engaged at saithe fishing at the Mull of Kintyre for a few weeks in summer, but fish were scarce, and poor results were therefore obtained. Small line fishing was prosecuted to some extent at Campbeltown and Bowmore, but at Campbeltown this branch of the industry received less attention than usual, owing to the success which attended the herring fishing, and, as fish were never very plentiful, there is a falling-off of almost 43 per cent. in the total catch. At Bowmore, however, there has to be recorded an increase of 51 per cent. in the quantity and 57 per cent. in the value, the greater increase in the value being accounted for by heavier landings of plaice.

The boat-building trade of the district was slack, only one large herring skiff having been built during the year, the owners of which belong to Campbeltown.

Fortunately no lives were lost in connection with the prosecution of the fishing throughout the district, and the damage done to fishing gear was less than usual.

The various barometers in the district are all in good condition, and are being well attended to by the custodians.

FISHERY OFFICE,  
CAMPBELTOWN, 7th January 1913.

JOHN SIM,  
*Fishery Officer.*

*Inveraray District.*

Loch Fyne, so far as its fisheries are concerned, has for the past few years been passing through a time of serious depression, and during the year just closed matters appear to have reached their worst. The failure of the herring fishing was entirely responsible for this, as the other branches of the fisheries are of minor importance.

Fishermen are generally optimistic, and each succeeding year they have hoped for better results, only to be disappointed.

The total quantity of fish landed (exclusive of shell-fish) was 11,888 cwts., valued at £3325, compared with 18,894 cwts. of the value of £4303 in 1911, which was also an unproductive year.

The downward tendency which, within recent years, has shown itself in the means of capture was again evident. The number of boats on the register was 14 less than in the preceding year, while the number of fishermen belonging to the district also

showed a considerable falling-off. There was little change in the length of lines in use, but the area of netting showed a marked shrinkage. This state of matters is sure to be further accentuated unless a great and speedy improvement takes place in the fishing industry.

The number of boats using auxiliary motor power showed an increase of fully 30 per cent., there being 40 belonging to the district at the close of the year, compared with 30 in 1911.

The herring fishing was again a pronounced failure, the landings being the lowest recorded for the past 60 years. Throughout the whole season only small isolated shoals were met with.

Towards the end of March about 15 pairs of motor boats hailing from Tarbert, Carradale, and Campbeltown commenced operations on the grounds in the vicinity of Skipness. The fishing was irregular, but, considering the early season, the results as regards quantity were satisfactory. No buying steamers were then in attendance on the fleet, and fishermen almost invariably "motored" with their takes to Fairlie, and despatched them to Glasgow by rail. As the quality of the fish left much to be desired, the monetary returns were generally unremunerative.

By the middle of May the regular fleet was at work, but the shoal located during the previous month had evidently moved south, as few herrings were then met with. Operations were continued for a short time without success, with the result that the majority of the crews sailed for other districts, leaving only the older fishermen to fish the local waters. In October small shoals of immature herrings frequented the grounds near Ardlamont and Lochgair, but, as there was no demand for these, only a small quantity was landed. During December herrings entered Lochkylesport, on the western seaboard of the district, but owing to continued stormy weather operations were carried on with the greatest difficulty, and the landings were of little importance.

The total catch for the district amounted to only 2192 crans, compared with 4672 crans in 1911.

The herrings caught in Lochkylesport, as well as those taken from Loch Fyne during July and August, were of good quality, but during the rest of the season the quality was, as a rule, inferior. Prices varied from 2s. 6d. to 6s. per cran, the average price being 19s. 10d., compared with 14s. 3d. in 1911.

Curing operations were conducted on a very limited scale. In all 216 barrels were cured, three-fourths of which were credited to Ardrishaig and the remainder to Tarbert. All were disposed of in the surrounding district at prices varying from 20s. to 35s. per barrel.

Dense shoals of mackerel appeared in all parts of Loch Fyne during the months of June, July, and August. The season runs simultaneously with that of the herring fishing, and the method of capture is the same, *i.e.*, ordinary seine and drift nets. This fishing was never vigorously prosecuted, and but for the failure of the herring fishing would have received less attention. The quantity landed was 3387 cwts., valued at £642, an increase of 1934 cwts. and £366 when compared with the figures for the preceding year. The quality was mixed, and prices ranged from 1s. 6d. to 8s. per cwt. The whole catch was despatched to the markets in a fresh state.

Owing to a number of district crews having been engaged at herring fishing from Stranraer, the line fishing season was considerably curtailed, with the result that the landings were slightly less than those of the previous year. The catch consisted almost entirely of codlings, nearly all of which were disposed of locally.

Cod-net fishing was carried on chiefly from Minard, with improved results, but, as in the case of line fishing, the quantity landed annually by this method is small.

The output of oysters from Loch Sween and West Loch Tarbert beds showed a shrinkage of fully 50 per cent. At one time the latter beds were well stocked, but the output has been annually diminishing, and less attention is being given to oyster culture.

Lobster fishing was carried on to a greater or less extent during the whole year. The results were much better than those of 1911, the improvement being most marked in the case of the island of Luing. In addition to local crews, boats from other districts land their takes at the various creeks during the summer months.

At Tarbert, boat-building was at a standstill, only small repairs to fishing craft being carried out. Better conditions prevailed at Ardrishaig, however, where three motor boats, larger than any previously built in the district, were launched. The prospects for 1913 are meantime not encouraging.

During a gale in the middle of November a Tarbert motor boat broke from her moorings, and, after drifting down Loch Fyne, grounded on Inchmarnock and became a total wreck.

Apart from the above, the damage to fishing craft and gear was of little importance. No lives were lost in connection with the fisheries.

The barometer at Tarbert continues to be appreciated by the fishermen, and a record of the weather is kept daily.

FISHERY OFFICE,  
TARBERT, 6th January 1913.

ROBERT SPINK,  
*Fishery Officer.*

*Rothesay District.*

The returns of the fisheries for this district for 1912 show a considerable decrease when compared with last year's figures. The total landings of all kinds of fish (excluding shell-fish) totalled 22,361 cwts., valued at £9576, compared with 33,944 cwts., valued at £10,853, in 1911. Shell-fish realised £621, against £767 last year.

In the means of capture there are 6 boats less than were recorded last year. This decrease is compensated for by the fact that the boats added to the register during the year were larger and better craft in every way than the old and useless boats written off. At Pirnmill, in Arran, two new boats of the first class, having 15.20 h.p. Kelvin motor engines installed, were built to the order of local fishermen. Two skiffs belonging to Lochranza and one to Dunoon had 7.9 h.p. Kelvin motor engines installed by their owners. There are now 16 motor fishing vessels owned by fishermen belonging to the district.

The herring fishing was not attended with the same success as in the previous year. The total landings of herrings show the large decrease of 11,050 cwts. in quantity and £1068 in value.

The summer herring fishing commenced in June, and continued intermittently until the end of December. During June, July, and August a fleet ranging from 20 to 175 boats (mostly motor boats) worked in the district. The greater part of the fleet fished off the east and south coasts of Arran, with varying success. A number of carrying steamers were daily in attendance, and 3260 crans were purchased and conveyed, for the most part, to Glasgow Fishmarket, where excellent prices were obtained.

A small number of motor and sail boats, working seine nets, operated



from Rothesay. The crews had a slightly better season than last year. The bulk of the catches was secured south of Bute and in mid-channel east of Bute.

In the capture of herrings seine nets were principally employed, and appear to be most in favour with the fishermen of the district; 4517 crans, valued at £6336, were taken by this method of fishing, drift nets accounting for only 78 crans, valued at £207. The quality of the herrings was, on the whole, satisfactory. Prices ranged from 8s. to 53s. per cran, the average for the year being 28s. 11d., against 20s. in 1911 and 23s. 5d. in 1910.

Fair quantities of mackerel were landed, the total for the year amounting to 1497 cwts., valued at £316, against 2328 cwts., valued at £445, in 1911. All the mackerel were disposed of in a fresh state.

There is little of importance to report in regard to the white fisheries. During the year 4782 cwts., representing a cash value of £2617, were landed, as compared with 4484 cwts., valued at £2627, last year. This branch of fishing is not now carried on with anything like the same regularity as formerly. A number of fishermen who live at the various Clyde watering-places now devote their attention to boat-hiring during the holiday season.

The shell-fisheries were not so successful. The lobster fishing, which formerly gave employment to a number of crofter fishermen, and used to be the principal fishing at the south end of Arran, was almost a complete failure. The total value of lobsters landed in the district amounted to £96, against £184 last year.

During the year three fishing boats, valued at £403, were built by firms in the district.

There was no loss of life in connection with the fisheries, and damage to boats and gear was trifling.

The barometers at Lamlash and Lochranza were kept in excellent order by the custodians.

FISHERY OFFICE,  
GLASGOW, *January 1913.*

DONALD SKINNER  
*Fishery Officer.*

*Greenock District.*

During the year just closed the fisheries of this district were carried on on much the same lines as in recent years.

Compared with 1911, the total results show an increase of almost £3800, which was chiefly attributable to the increased landings of herrings. The returns of fish caught by lines remained stationary, but there was a falling-off in the landings by steam trawlers. The value of shell-fish landed was almost £220 above the figures for the preceding year.

A new boat, fitted with a 15-20 h.p. Kelvin motor engine, was added to the fleet, and four other district boats had motors installed during the year. Against this, however, a decrease in the number of sailing boats falls to be recorded, and there have been further cancellations in the fishing boats' register since the returns were compiled. The chief causes of those cancellations were that the boats had become too old and unfit for further use, the removal of owners to other places of abode, and the inability of sailing boats to successfully compete with those possessing motor power.

The herring fishing is the principal branch of the industry carried on within the limits of this district, and although herrings were got almost continuously throughout the year, the bulk of the catch was obtained during the summer months.



During July and August a shoal of herrings of good quality appeared off Irvine and Troon, and the fleet operating in those waters obtained satisfactory results, the prices ruling at that time being from 30s. to over 50s. per cran. This fishing continued to be irregularly prosecuted, with indifferent results, on to November, only a small number of boats being latterly engaged.

In the last two months of the year shoals of small herrings were found off Largs, Fairlie, and Saltcoats. The total landings at these three places during the period mentioned amounted to 530 crans, valued at £316.

For the twelve months of 1912 the total catch of herrings exceeded that of 1911 by 1658 crans in quantity and £3978 in value.

Thirteen steamers were engaged in the Clyde in the buying and carrying of herrings from the fleets to Glasgow and other convenient centres.

Cured herrings were in good demand, and those of the better quality especially were readily bought up at high prices for the American market. A considerable number of barrels were also disposed of in Glasgow and neighbourhood.

The herrings converted into kippers were, for the most part, either sent to England or sold in the district.

Line fishing is not prosecuted to any appreciable extent in the district. A few small boats made occasional trips to sea throughout the year from the various creeks, the chief of which were Largs and Millport. The landings were mostly composed of codlings, whittings, flounders, and plaice.

There were 22 arrivals of steam trawlers and liners at Glasgow, as against 40 arrivals in the preceding year, hence the decrease in the quantity and value of fish landed by steam fishing vessels.

The output of mussels showed an increase of over 4000 cwts., which was due to the increased attention given to dredging on the beds off Port-Glasgow. The returns of lobsters and unclassified shell-fish were under those of 1911.

As will be observed from the returns, a considerable business was done in the exportation of cured herrings and other fish.

In addition to Scottish cured herrings, quantities were sent to this district from Ireland for shipment to America. The cases of preserved fish came chiefly from Aberdeen for export to America and Australia, and dried fish were sent to Ireland, Spain, and America.

At Glasgow Fishmarket there was, as usual, a large business done in nearly all kinds of fish.

In addition to fresh herrings (the supplies of which fluctuated), there were regular supplies of fresh, smoked, and cured fish passing daily through the market. These came from places on the East and West Coasts of Scotland, England, and Ireland, but the chief sources of supply were Granton, Aberdeen, and the Moray Firth ports.

While the various shipbuilding yards were fully employed in other directions, the building of fishing vessels was rather slack, only two steam trawlers and one sailing boat—the latter fitted with a motor engine—being built in this district during the year.

More barrels were made than in the preceding year, but the local supply fell far short of requirements, and curers were obliged to purchase from makers residing in other districts.

*Ballantrae District.*

The general results of the fisheries of this district for 1912 may be regarded as satisfactory. The returns, when compared with those of 1911, show marked increases, due mainly to a very successful herring fishing in the early months of the year, and again in December. Steam-line fish also helped to swell the figures. A feature of the year was the high prices ruling for fresh herrings, especially from May till the end of December.

In the means of capture the most noticeable feature is the large increase in the number of motor boats. In 1911 the total number of motor craft was 18, while during the year under review there were 40 fishing. Another point to be noted is the tendency to go in for motors of greater power than hitherto. Several owners in this district discarded their 7-9 motors and installed engines of 15-20 h.p. The most popular motor is the Kelvin. Although only two boats were built within the district, five new craft were added to the fleet, two of which were fitted with motors, and cost £250 each.

The winter herring fishing was a distinct success. Loch Ryan was the principal centre of operations, although Ayr Bay was favoured by some of the crews, and, later on, the Ballantrae Bank. The quantity landed was 11,160 crans, valued at £10,834, as against 4861 crans and £4669 in the preceding year. The best week produced 4817 crans, valued at £3935. The quantities taken by the respective modes of capture were as follow—namely, 10,251 crans, valued at £9643, by seine nets; 837 crans, valued at £1079, by trammel nets; and 72 crans, valued at £112, by drift nets. From the foregoing it would appear that seine-net herrings were not so valuable as drift or trammel net fish, but such is not the case. Supply and demand rule the market. When herrings are marketed by all three modes of capture on the same day there is little or no difference in ruling prices. The average price was 19s. 4d., as against 19s. 2d. in 1911, and 17s. 10d. in 1910.

By the time the herrings reached the Ballantrae Bank the weather had become very broken, and the fleet had often to remain in harbour. Fish were taken from this ground only eight times between 12th February and 16th March, when the fishing closed. The quantity landed was 3763 crans, all caught by seine nets, no attempt being made to fish the Bank with either trammel or drift nets. There was no herring fishing whatever on the Bank in 1911.

The summer herring fishing opened about the usual time—the middle of May. Drift nets were used at the start, but later on both drifts and seines were brought into operation. The quantity landed by the respective modes of capture from May to September inclusive was, by drift nets 2281 crans, and by seine nets 1860 crans. Throughout the season the quality was generally good, and prices maintained an unusually high level. The average price for the period referred to (35s. 2d. per cran) was exceptionally good. After September the usual slack time set in, and 10 boats left for the north-west lochs. One crew grossed £236. The others after a few weeks returned home after an unsuccessful voyage.

In December herrings were discovered in Ayr Bay, and also in Loch Ryan, and had the weather been more propitious, better results would doubtless have been obtained. As it was, this month yielded 3058 crans, which sold at an average price of 32s. per cran. The highest price touched was 82s. per cran. With reference to the weather, it may be of interest to relate that five boats fishing flounder nets from Girvan got to sea only three times during the last month of the year, their total catch being under 2 cwts. of plaice.

Seven East Coast steam liners fished from Stranraer, as against 2 in the preceding year. They made 30, 26, 25, 24, 23, 22, and 2 trips respectively, and their earnings in the same order were £748, £361, £518, £522, £255, £390, and £26. The best shot realised £49. The catches were mainly composed of cod, skate, and eels.

While the results from great-line fishing by sail and motor boats were not so good as in the preceding year, the cod-net fishing practically offset the deficiency, the difference being only £23 in favour of 1911. The small-line fishing also exhibits a slight decrease, this being explained by the fact that more time was devoted to herring fishing.

The flounder fishing shows some improvement, while beam-trawling for flat fish in the Solway exhibits considerably-decreased returns. In many parts of the district flounder fishing is only resorted to when other fishings fail.

The output of oysters from the Loch Ryan beds continues to increase. The value exceeds that of 1911 by £660, and is more than equal to the value of all the other shell-fisheries in the district. The lobster and mussel fisheries were not so successful as in the previous year, but the deficiency is more than counterbalanced by the landings of crabs and unclassified shell-fish.

With the exception of a few herrings kippered, all the fish landed were sent fresh to market.

No lives were lost in connection with the fisheries.

FISHERY OFFICE,  
GIRVAN, 9th January 1913.

W. M. WARES,  
*Fishery Officer.*



## APPENDIX M.

## COD-NET FISHING IN THE MORAY FIRTH.

Although the method of fishing known as cod-net fishing has been in vogue on the West Coast for almost a century, it has been practised on the East Coast only during the last seven years, but it has already assumed important proportions. The new development is centred in the Moray Firth, and is carried on during the early spring months. Begun there in 1906 by the fishermen of Findhorn district, for two years it attracted little attention, but the remunerative results obtained at a time when there is a general lull in herring fishing began to be more generally realised, and in 1908 there was a great accession of activity, with the result that the preceding year's catch was trebled. Since then all the districts bordering on the Moray Firth have embarked upon the new enterprise, and it may now be said to have become a recognised portion of the year's routine.

The following table shows the progress of cod-net fishing on the East Coast (almost entirely in the Moray Firth) since its introduction there in 1906 :—

		Cwts.			Cwts.
1906	..	..	3,990	1909	.. .. 40,676
1907	..	..	3,808	1910	.. .. 76,104
1908	..	..	11,296	1911	.. .. 36,938
				1912	.. .. 76,751

The season is of varied duration, a number of boats commencing early in February and fishing continuously up to the end of April, but, generally speaking, it may be said to last for eight weeks from the middle of February. At that time the cod congregate in the Firth in order to spawn, and, in common with other round fishes, do not readily take bait when in that condition. Consequently very few are taken by lines, and the net is thus peculiarly suited for the capture of gravid cod.

The principal fishing grounds lie from four to eight miles off the coast from Tarbet Ness north to Helmsdale, and the fishing is engaged in by both large and small vessels. In Findhorn and Buckie districts, as might be expected, the fleet is composed of steamers and 1st class sailing vessels. In the remaining districts it is carried on by small vessels. The nets used are of 18 ply yarn, 120 yards in length and 7 yards in depth, with a 9-inch mesh. As compared with the old type of cod-net, several improvements have been introduced. The corks formerly used for keeping the net in an upright position have been replaced by strong hollow glass balls, about one pound in weight and five inches in diameter, which are covered with canvas to prevent breakage and to enable ropes to be attached to them. These balls retain their buoyancy for a much longer period than corks, and are otherwise more serviceable. The stones formerly used for weighting the bottom of the nets are replaced by small sandbags of about six pounds in weight and from 14 to 16 inches in length. The large sailing boats and steamers carry from 25 to 35 nets each, the number used by smaller vessels varying according to the size of the craft, some of the small 3rd class yawls employing only six. When mounted the net is contracted to 60 yards in length, and the fish, it may be stated, are not meshed by the gills, but are rather entangled in the loose folds of the net.

The success of this fishing depends to a large extent on the weather conditions. Some degree of stormy weather, which is inimical to line-fishing, seems to be necessary to the success of cod-net fishing, as it renders the water cloudy. In clear water it appears that the fish can see and are able to avoid the nets.



1910 may be taken as the year in which cod-net fishing in the Moray Firth became established as a regular seasonal fishing, and the landings for the Moray Firth districts for the three years 1910-11-12 are shown in the following table, the figures throughout being for the months January to April inclusive:—

TABLE showing the Quantity of Cod taken by Cod-nets in the Moray Firth during the years 1910-11-12:—

	1910.			1911.			1912.		
	Cwts.	£.	Average price per Cwt.	Cwts.	£.	Average price per Cwt.	Cwts.	£.	Average price per Cwt.
Banff, . .	5,288	2,275	8/7	2,866	1,297	9/	11,352	3,642	6/5
Buckie, . .	8,749	3,680	8/5	9,560	4,502	9/5	17,129	6,392	7/6
Findhorn, .	48,551	16,698	6/11	13,952	5,798	8/4	28,492	11,425	8/
Cromarty, .	673	236	7/	268	88	6/7	721	160	4/5
Helmsdale, .	1,623	430	5/3	1,858	627	6/9	1,727	554	6/5
Wick, . .	4,251	1,452	6/10	3,964	1,650	8/4	7,039	2,543	7/3
Totals, . .	69,135	24,771	7/2	32,468	13,962	8/7	66,460	24,716	7/5

An examination of the above table shows that the year 1910 was the most successful; that a great falling off occurred in the following year; but that last season witnessed a revival which brought the total catch back practically to the level of 1910. A perusal of the figures for 1912 shows, moreover, that the fishing has grown in a greater degree than the totals would indicate. Banff, Buckie, and Wick districts all show substantial increases upon the figures for 1910, and had the Findhorn district vessels been as successful as they were in that year, the catch for the current year would easily have constituted a record. 1910 appears to have been a year of exceptionally heavy catches—takes of from 800 to 1000 fish having then been frequently landed. The success then attained inspired hopes for the following year which were not fulfilled. The season of 1911 was, indeed, a pronounced failure, the shoals, for some reason or other, not appearing in anything like their usual density. Last year the catches ranged between 200 and 600 fish, which, while considerably below the outstanding level of 1910, were much better than those of 1911, and may be considered fairly satisfactory. The great increase upon the 1911 catch, while mainly ascribable to the larger individual takes, may have been in part due to the greater number of vessels employed, although this is doubtful, as the increase occurred in sailing boats, which are less effective than steamers, in which, as a matter of fact, there was a decrease. The following table shows the average number of vessels employed in each district during the years 1910-11-12:—

	1910.			1911.			1912.		
	Steam.	Large Sail.	Small Sail.	Steam.	Large Sail.	Sm all Sail.	Steam.	Large Sail.	Small Sail.
Banff, . .	—	2	90	—	3	89	—	3	82
Buckie, . .	11	17	—	3	41	—	2	56	—
Findhorn, .	20	51	—	25	61	—	15	66	—
Cromarty, .	—	—	3	—	—	4	—	—	3
Helmsdale, .	—	—	8	—	—	12	—	—	12
Wick, . .	5	10	—	3	10	—	2	12	—
	36	80	101	31	115	105	19	137	97
	116			146			156		

Having regard to the fact that the sudden influx of supplies of net-caught cod during the spring frequently results in the markets being glutted, prices are higher than might be expected, comparing fairly favourably with the average price of all cod landed for the whole year. In 1910-11-12 the respective prices were 8s. 4d., 8s. 1d., and 7s. 4d. per cwt.

The bulk of the catch is despatched to the Southern markets—Glasgow and London principally—in a fresh state, the season coinciding with that of Lent, when a greater proportion of the catch than usual is consumed fresh, but an appreciable quantity is sent to Shetland to be dried, and to Aberdeen to be dried or smoked.

Statistics designed to show the degree of remunerativeness of this method of fishing have also been obtained, but it has been found impossible to deal with them on a uniform basis. They have therefore been dealt with as follows:—The Helmsdale figures have been discarded, as a large number of the small boats engaged carry on small-line fishing concurrently with net-fishing, the landings consisting consequently of fish taken by both methods. The figures for Findhorn, Buckie, and Wick districts, where only large boats participate, have been combined, as have also those relating to Banff and Cromarty districts, where small boats only are engaged, and the results have been taken as typical of the operations of large and small boats respectively.

Dealing first with the Findhorn, Buckie, and Wick fleets of 1st class steamers and sailers, the statistics bring out the following results:—

1ST CLASS BOATS—BUCKIE, FINDHORN, AND WICK DISTRICTS.

STEAM VESSELS.

Year.	No. of Vessels.	No. of Landings.	Quantity.	Value.	Aver. Quan- tity per Trip.	Aver. Value per Trip.	Average No. of Crew.	Aver. No. of Trips per Week.	Aver. Weekly Earn- ings per Vessel.	Aver. Weekly Earn- ings per Man.
			Cwt.	£.	Cwt.	£.			£	£
1910	36	1,333	35,814	12,474	26.9	9.4	8	3½	32.9	4.1
1911	31	672	9,203	3,880	13.7	5.8	8	3½	20.3	2.5
1912	19	463	9,860	3,724	21.1	8.	8	3½	28.	3.5
Totals	—	2,473	54,877	20,078	22.2	8.1	—	—	28.35	3.54

SAILING VESSELS.

1910	78	1,197	25,737	9,356	21.5	7.8	6½	2-3	15.6-22.4	—
1911	112	1,954	18,273	8,070	9.3	4.1	6½	2-3	8.2-12.3	—
1912	134	2,942	4,280	16,636	14.5	5.7	6½	2-3	11.4-17.1	—
Totals	—	6,093	86,810	34,062	14.2	5.6	—	—	11.2-16.8	—

These figures are self-explanatory, and all that need perhaps be said is that the superiority of the steamers over the sailing boats is due, as in herring fishing, mainly to their ability to make a greater number of trips weekly. The average weekly earnings per man is perhaps a somewhat speculative computation, at least in the case of the large vessels, as the gross earnings would not be divided equally—boat's share, net's share, etc., having to be taken into consideration—but it may serve to give some idea of what individual earnings are.

The next table gives the results for the small 3rd class boats, and is as follows:—

## SMALL SAIL-VESSELS—BANFF AND CROMARTY DISTRICTS.

Year.	No. of Landings.	Quantity. Cwts.	Value. £.	Aver. Quantity per trip. Cwts.	Aver. Value per Trip.	Aver. No. of Crew.	Aver. Trips per Week.	Aver. Weekly Earnings per Boat.	Aver per Man.
1910	1,382	5,961	2,511	4.3	£1 8	4	2	£3.6	18s.
1911	1,216	3,134	1,385	2.6	1 1	4	2	2.2	11s.
1912	1,643	12,073	3,802	7.4	2.3	4	2	4.6	23s.
Totals.	4,241	21,168	7,698	5.0	£1.8	4	2	£3.6	18s.

It remains to ascertain how cod-net fishing compares with line-fishing, from the point of view of remunerativeness, and for this purpose the following particulars have been obtained:—(1) The average weekly earnings of steam liners (at Aberdeen and Mallaig, as being typical of line-fishing districts), during (a) the months February–April inclusive, and (b) throughout the whole year, during the years 1910–11–12; and (2) the earnings of the small boats engaged in line-fishing in the Moray Firth during the same periods. These figures, in juxtaposition with those for cod-net boats, are shown below.

## I.—Average Weekly Earnings of (a) Steam Liners Fishing from Aberdeen and Mallaig, and (b) Steam Drifters engaged in Cod-Net Fishing in the Moray Firth.

1910.			1911.			1912.		
Line-fishing at Abdn. Mallaig.		Cod-net fishing.	Line-fishing at Abdn. Mallaig.		Cod-net fishing.	Line-Fishing at Abdn. Mallaig.		Cod-net fishing.
Feb.-Ap. £70 whole year £72	Feb.-Ap. £50 whole year —	£32.9	Feb.-Ap. £73 whole year £66	Feb.-Ap. £55 whole year —	£20.3	Feb.-Ap. £79 whole year £64	Feb.-Ap. £51 whole year —	£28

NOTE.—Mallaig fishing prosecuted only in spring.

## II.—Average Weekly Earnings of Small Boats engaged in (a) Line Fishing, and (b) Cod-Net Fishing.

	1910.			1911.			1912.		
	Line-fishing.		Cod Nets.	Line-fishing.		Cod Nets.	Line-fishing.		Cod Nets.
	Feb.-April.	Whole year.		Feb.-April.	Whole year.		Feb.-April.	Whole year.	
Banff, . . .	£3 0s	£3 10s	£3 6s	£3 10s	£4 0s	£2 2s	£3 15s	£4 15s	£4 6s
Buckie, . .	3 10	2 0		4 0	2 10		4 10	2 10	
Cromarty, .	3 2	2 15		3 12	3 8		3 16	3 0	
Helmsdale, .	2 5	1 12		3 12	3 2		3 17	4 5	
Wick, . . .	4 2	3 8		3 10	2 19		2 10	3 1	

NOTE.—Boats from Lossiemouth are 2nd class boats carrying 5 men, and are therefore excluded.

It is quite clear that, in so far as steamers are concerned, cod-net fishing is not nearly so remunerative as regular line-fishing, but it must be remembered that the former is regarded by the participants merely as a stop-gap during the interval between the winter and early herring fishings. Were there no cod-net fishing, a few crews might fit out their drifters for line-fishing, but the majority would embrace the opportunity afforded by the lull in herring fishing to spend some time at home. (These remarks, it must be understood, apply only to the men of the Moray Firth.) As it is, cod-net fishing entails little labour, while the men are absent from their homes for only so long as it takes to make the short trip to the fishing ground, set the nets, and return, so that the fishermen, with the minimum sacrifice of their annual period of leisure, are able to add not inconsiderably to their earnings.

The results brought out in the case of the small boats show that the earnings at cod-net fishing compare quite favourably with those obtained at line-fishing, and if the example of the Golspie men were followed, and the two methods of fishing carried on simultaneously, it is probable that a considerable increase in earnings would accrue.

It should be pointed out, too, that cod-net fishing has not developed at the expense of line-fishing for cod. The latter is carried on close inshore, principally by means of the ripper, and the catches, which consist almost entirely of codling, have not in any way been affected by cod-net fishing. The fish taken by nets are full-grown fish, about to spawn and forms an absolute addition to the food supply.



## APPENDIX N.

## THE MINCH MACKEREL FISHERY.

Although mackerel are found all round the coast of Scotland, the Minch is the only locality in which an organised mackerel fishery may be said to exist, and the efforts which have been made to develop a Scottish mackerel fishing have all been concentrated upon that quarter. Some years ago the Fishery Board and the Congested Districts Board, working in concert, equipped a number of boats with mackerel nets, and distributed a pamphlet of instructions for curing, while later they arranged for the erection of an ice store at Kyle of Lochalsh. For a time it looked as if their efforts to foster the industry were to be crowned with success, as by the year 1907 the fleet operating from Kyle, where in 1899 only a single boat had been engaged, had increased to 68 vessels. That year, however, appears to have marked the culminating point of the fishing, as since then the number of boats fitting out annually has greatly declined. The progress of the fishing since 1906 may best be gauged from the following table :—

YEAR.	STORNOWAY.				BARRA.				LOHCARRON & SKYE.			
	Catch Cwts.	Value £.	Aver. Price per Cwt.	Bar- rels Cur'd.	Catch Cwts.	Value £.	Aver. Price per Cwt.	Bar- rels Cur'd.	Catch Cwts.	Value £.	Aver. Price per Cwt.	Bar- rels Cur'd.
1906 .. .	3,610	1,453	s. d. 8 0	—	4,603	716	s. d. 3 1	1,304	8,219	3,111	s. d. 7 7	85
1907 .. .	5,871	1,335	4 7	698	2,640	268	2 0	445	13,366	4,209	6 1	235
1908 .. .	8,163	1,310	3 2	537	1,599	220	2 9	565	5,418	1,623	6 0	240
1909 .. .	9,015	2,575	5 8	895	2,189	250	2 3	378	3,270	1,103	6 9	—
1910 .. .	8,892	1,893	4 3	926	2,108	117	1 1	397	3,927	2,066	4 7	—
1911 .. .	5,060	1,055	4 2	640	987	72	1 5	161	6,314	1,121	3 7	—
1912 .. .	6,213	681	2 2	1,500	5,436	134	6	179	5,066	1,070	4 3	178

These figures call for little comment, as it is obvious that since 1909, when the matter was last reported upon, the fishing has made little or no progress. Perhaps the most unsatisfactory feature is the pronounced fall in prices, particularly in Barra district. In that district it was due to the poor quality of the fish, which on that account failed to find purchasers, and had in consequence to be disposed of to a manure factory. The only satisfactory feature of the return is the increase in the quantity cured at Stornoway, which appears to indicate that some effort is being made to develop this branch of the industry.

But in view of the disabilities under which the Minch mackerel fishing labours, it is doubtful whether under present conditions any great development can be expected. The principal drawback is the great distance of the fishing grounds from the markets in which the fish is sold. There is little or no demand for mackerel in Scotland, and the fish have in consequence to be sent to London and other English centres, the freight rates to which are so high that if the buyers are to compete with the supplies landed from Milford Haven and other West of England ports, they can afford to pay only the lowest prices to the fishermen. Again, perhaps no fish deteriorates so rapidly as the mackerel, and it has frequently happened that consignments, on reaching their destination, have been condemned as unfit for food, even although they may have been packed in ice. There is thus little inducement to either buyers or fishermen to engage in this

fishing, but perhaps the greatest obstacle to its development is the indifference of the participants themselves. The mackerel fishing season coincides with the herring fishing season, and none of the fishermen will trouble to fish for mackerel while herrings are to be obtained. As regards the buyers, there is every reason to believe that if *sufficient* ice were used no danger of condemnation on arrival at the markets need be feared, yet notwithstanding the provision of ice at Kyle of Lochalsh, the buyers, the local fishery officer states, will only ice their fish on Fridays and Saturdays, thus courting disaster. The preference of the fishermen for herring fishing, again, reacts unfavourably on the curing industry, since a large number fish for mackerel with herring nets, the meshes of which are too small to capture the larger sizes of mackerel, which best repay curing.

Nevertheless, it is to the curing industry one must look for any development of the mackerel fishery, and in this connection the rapid progress which has been made by the Norwegians affords an inspiring example. The great market for cured mackerel is the United States of America, and up to the year 1887 it was supplied by the native fishermen and curers, but in the following year the American fishery failed, and from that time onwards has gone from bad to worse until now it is almost extinct. Both Ireland and Norway seized the opportunity to gain a footing in the United States markets, but at first the Norwegian product did not make much headway, and the Irish curers secured the great bulk of the trade. The Norwegians thereupon set themselves to improve their methods of cure, and so successful have their efforts been that the best Norwegian mackerel now realises from two to three times more than the best Irish, the prices quoted at New York in August 1912 being, for the former, 31 dollars, and for the latter 13½ dollars.

What has been accomplished by the Norwegians ought not to be beyond the capabilities of Scottish curers, who have established a world-wide reputation for herring curing. But if they are to compete successfully with the Norwegian product, the necessity of adopting Norwegian methods of cure cannot be too strongly insisted upon. The Irish Departments concerned have not been slow to recognise this, and Scottish mackerel curers would be well advised to consult the report of the Irish Congested Districts Board for 1911, to be obtained through H.M. Stationery Office, price 5d. In that report it is stated that the gloomy condition of the Irish pickled mackerel trade makes it necessary for curers to decide whether they will abandon the industry or adopt the methods of Norwegian curers, whose fourth, or poorest quality of mackerel, as a rule, obtains a higher price in the United States than the best Irish mackerel; and exhaustive instructions as to the proper methods of curing and marketing follow. The principal points on which stress is laid are:—

- (1) Only good new barrels, holding 210 lbs. of fish, should be used.
- (2) The fish must be absolutely fresh when cured. Unless this is the case the flesh, no matter how carefully the fish may be treated otherwise, will not turn out white in cure.
- (3) The fish should be carefully graded as follows:—

No.	1	Grade,	175	to	185	fish to the barrel.
	2	"	220	"	260	" "
	3	"	300	"	350	" "
	4	"	400	"	450	" "

## APPENDIX O.

**SALMON FISHERIES.****MR. CALDERWOOD'S REPORT.**

FISHERY BOARD FOR SCOTLAND,  
*March 1913.*

I have the honour to report upon my inspections, etc., in 1912.

## THURSO.

*Limits of Estuary.*

For a considerable number of years the salmon netting in this district has been very considerably reduced. In order to improve the general stock of fish in the neighbourhood, all nets were removed from the river Thurso and its estuary, and all bag-nets were also taken out of Thurso Bay. Early in 1912, however, the Ulbster fishings situated in the estuary and Bay of Thurso were let to a tacksman, and nets were again put on. Owing to the positions in which certain of the nets were erected, a dispute arose as to the proper limits of the estuary, it being contended by the District Fishery Board that a line of fixed nets were placed inside the limits of the estuary. Reference to Schedule B of the Salmon Fisheries (Scotland) Act, 1868, shows the limits of the estuary to be "A portion of a circle 400 yards radius drawn from a centre placed mid-channel at the line of low water of equinoctial spring tides, and continued to the shore at high water by tangents, that on the east being to a point 500 yards north-east of Thurso Castle, and that on the west being in the direction of the Toll House." It was this latter line, in the direction of the Toll House, which gave rise to difficulty, partly because the words "in the direction of" are somewhat vague, but chiefly because the Toll House has been removed, and its previous site seemed to be a matter of some uncertainty. It was further contended that there were two Toll Houses, and this seems to have been the case, but one existed on each side of the town of Thurso, and only one could be regarded as having been referred to in the direction of the western line of the estuary. I had considerable correspondence with regard to the difficulty; and as the establishment of the site of a landmark of this kind is of some importance, I went into the matter on the spot with Mr. Keith, who sits as Chairman of the District Board as mandatory for Sir Tollemache Sinclair, and with Mr. Keith Murray, who acts as Clerk to the Board. I was passing through Thurso on my way to Shetland at the time, where my purpose was to survey the oyster grounds of the islands in question. Some old maps in the Ulbster Estate Office showed a Toll House marked at the outskirts of the town, and on calling on Mr. Dunbar, the naturalist and antiquarian of the district, and brother to the late Mr. Dunbar who for long was tenant of the Ulbster fishings, the site of this Toll House was pointed out to me. Mr. Dunbar took me to a point on the western side of the town where Durness Street and Olig Street join to form the main thoroughfare in the direction of Scrabster and Reay. Here on the left hand side of the road, in a waste piece of ground grown over



with grass, the site of a cottage or small house was clearly to be seen, the foundations and some of the floor space being still uncovered by the grass. A house of two storeys, standing in a garden, and, at the time of my visit, the last house on the right side of the road as one leaves Thurso by this road, was exactly opposite the site of the cottage foundations indicated. Mr. Dunbar has been in Thurso since 1865, and informed me that the Toll House certainly stood on the site indicated till some years after 1868, and that it was pulled down because it interfered with the view from a house built behind it, on the south, and, further, that the stones of the old Toll House were used in building the house behind it.

As the upshot of the dispute in question, the tenant agreed to remove the innermost of the four bag-nets which he had erected close to the western boundary of the estuary.

The same tenant has the right of sweep netting in the estuary, so long as he does not fish between the pier at the entrance of the river and the Castle. I went round to this eastern side of the estuary and saw two shots drawn by net and coble. The tenant uses two motor cobbles, one on this eastern side and the other at Scrabster. In my experience these are the first motor salmon cobbles in Scotland.

#### DON.

On 21st December 1901, judgment was given in the Court of Session in the case of the Earl of Kintore and others against Messrs. Alex. Pirie & Sons, Ltd., paper manufacturers. The action had been pending in the Courts for two years, and was of the utmost importance to proprietors of salmon fishings in this district. The action dealt mainly with the abstraction of water at Stoneywood and Waterton dykes, and the consequent injury to the salmon fisheries of the pursuers. Lord Kyllachy found that not less than 36,000 cubic feet of water were abstracted at Stoneywood, and that this substantially injured the salmon fisheries. The action was reclaimed against, but ultimately Messrs. Pirie were compelled to alter their intake, their lades, and their weirs. An agreement was come to, and a Provisional Order, the River Don (Salmon Fisheries) Provisional Order, 1910, was passed, providing for various works not only at Stoneywood and Waterton, but also at Mugiemooss, the dyke of Messrs. Davidson, immediately below, action with regard to Mugiemooss having been understood from the first, and only pending the final settlement with Messrs. Pirie.

As a result, Waterton dyke, the lower of Messrs. Pirie's dykes, has been done away with, or at least cut down in part to the level of the bed of the river. No water is now drawn from the river at this point; Stoneywood dyke has been provided with a new pass, and Mugiemooss dyke has also been provided with a new pass. The last is most important to the river, since Mugiemooss was undoubtedly the most serious obstruction to the ascent of fish.

Stoneywood pass has now been constructed close to the right bank, and is formed of three pools. The pass is 15 feet wide; the pools are practically square, and are 3 feet deep. The sides are strengthened by angle steel in the concrete, and the lower end by steel piles. There is no aperture in the steps of each pool. The pass has in future to be kept running full at all times, and only subject to this condition can Messrs. Pirie draw from the river 11,000 cubic feet of water. The abstraction of water is now also through an orifice of fixed dimensions, and no more water may be drawn off from the river, during a rise in level, till  $6\frac{1}{2}$  inches of water are passing over the sill of the dyke. This condition has been ingeniously and automatically secured by the construction of a longitudinal spill weir in the lead behind the fixed orifice.



Stoneywood dyke will no longer, I think, prevent the ascent of salmon.

I have repeatedly had occasion to refer to Mugiemoos dyke. It may be recollected that the obstruction was here so great that in the autumn, when the river was crowded with fish, the watchers had to exercise extraordinary vigilance, night and day, at this spot, and that on several occasions the water carts of Aberdeen were brought out, filled with salmon, and the fish carted above the various obstructions in this part of the lower river.

The old pass at Mugiemoos was in the form of a simple chute, the dyke was (and is) high, and the apron had been built up flat and covered with smooth cement, the result being that fish ascending from the deep Saugh Pool below the dyke, and traversing the flat cement table-like apron, where the water was swift and shallow, found themselves unable to make any headway up the chute, the rapid water of which descended at the apex of the flat area. I give below a sketch plan of the old arrangement at this dyke.

The new pass has been formed by the construction of a subsidiary dyke at the foot of the flat area, so as to raise the level of the water and check its force, by forming a wider pass into the pool thus created, and by constructing a new and similarly wide pass in the down-stream face of the old dyke, care being taken that the water descending from the river above into the pool did not immediately find its way out in a direct rush through the pass in the subsidiary dyke. The general arrangement may be appreciated from the first of the two sketch plans.

Each pass is 12 feet wide. The upper pass is, measuring along the centre, 75 feet long, and the rise from the surface of the pool is 3 feet. The pool itself is 4 feet deep. The lower pass is about 22 feet long, and the rise from the Saugh Pool to the pool in the pass is about  $2\frac{1}{2}$  feet. The gap in the sill of the upper weir and of the subsidiary weir is 1 foot 8 inches. Reference to these passes is also made in the report from this district.

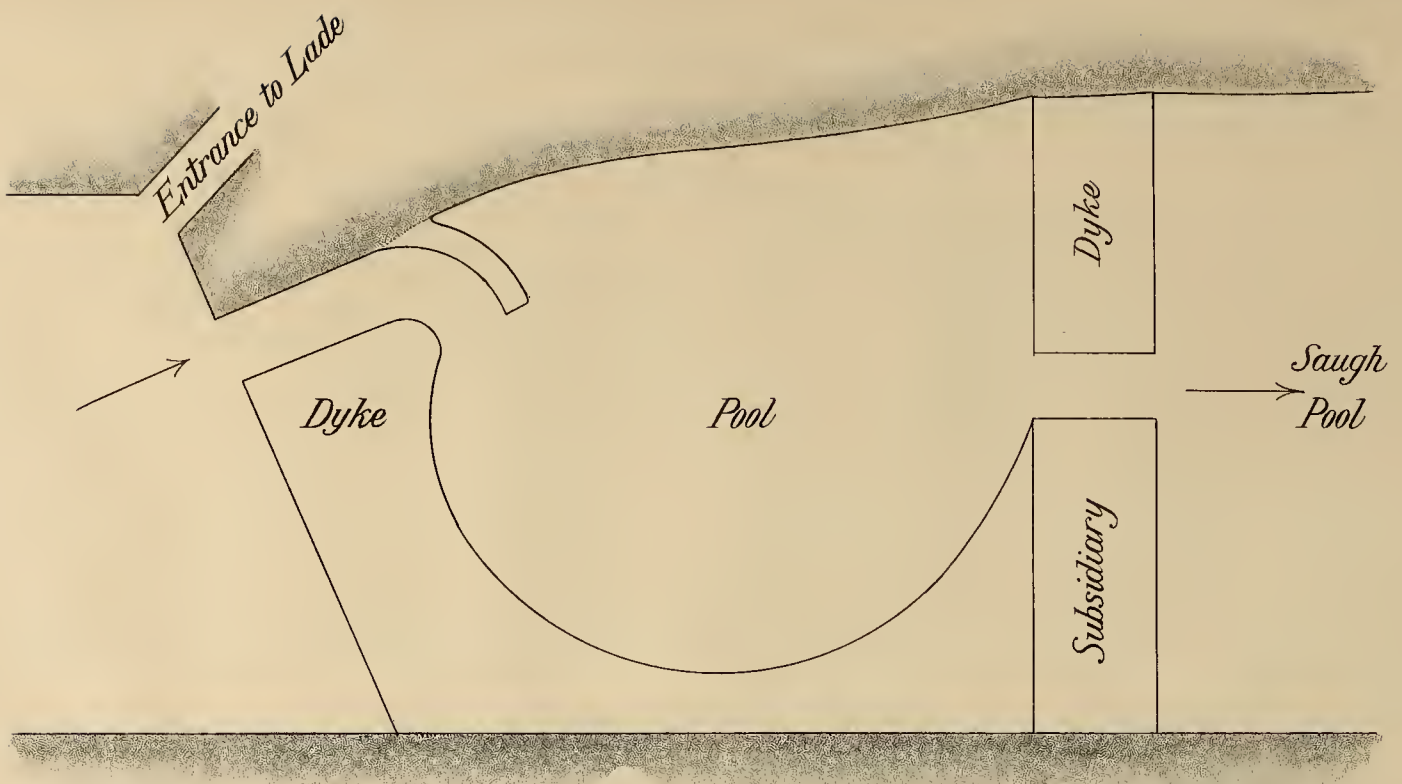
Messrs. Wilsone and Duffus, who act as Clerks to the District Fishery Board, have acted throughout in the interest of the salmon fishery proprietors in this matter, and have, after an infinite amount of negotiation, brought the matter to a successful issue.

#### INVER.

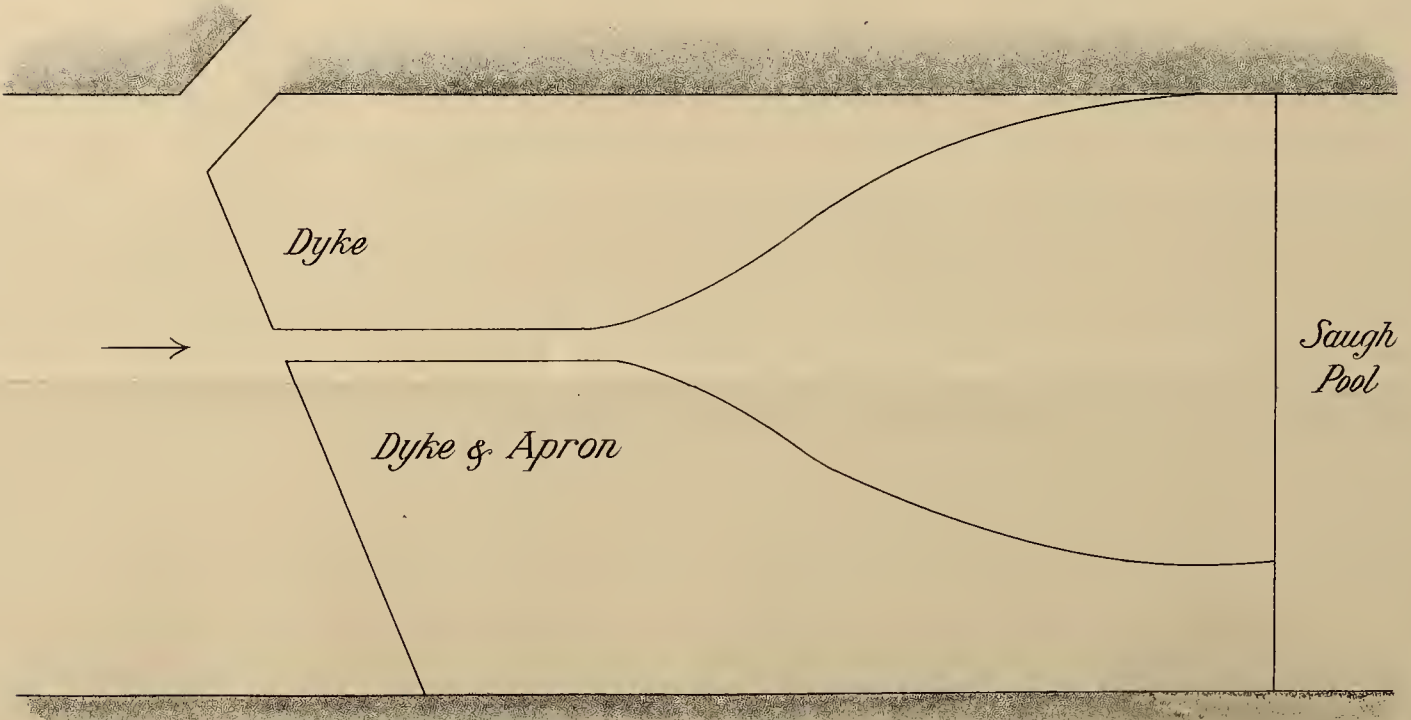
A dam has been constructed at the outlet of Loch Assynt in this district. The arrangement is very similar to that formerly described at Badanloch, in the Helmsdale district. The dam consists of four sluices supported only by the walls which form the sides of the water channels and the fish pass. The two side sluices are 6 feet 6 inches wide by 4 feet 6 inches deep. The pass is in the middle, and has a gradient of about 1 in 6. It is 4 feet wide.

The two side sluices are placed upon the original surface of the loch outlet, the two central sluices being two feet deeper. In this way the tops of all the sluices, when shut, are level. The low level of the road which runs along the side of Loch Assynt did not permit of the loch being raised more than 4 feet 6 inches. By excavating 2 feet at the middle sluices, an additional head of water at the outlet was secured. There is now, therefore, the possibility of raising Loch Assynt 4 feet 6 inches above its former level, and of lowering it 2 feet. To provide against sudden spates, an overflow channel has been excavated round the south side of the dam.

The northern portion of the parish of Assynt has recently been purchased from the Duke of Sutherland, and with this purchase have been included the rights of salmon fishing. The portion includes the northern bank of Loch Assynt and the river Inver, to the southern side of Kylesku and Glen Coul.



*General Plan of Mugiemoass Pool Pass. R. Don.*



*General Plan of Salmon Pass formerly at Mugiemoass Dyke*



## NESS

When, in November 1905, the application for an alteration of the rod fishing season in this district came up, the removal of the nets in the river Ness itself was largely bound up with the question. Every proprietor in the district was approached, and it was stated that the Loch Ness Angling Association had ascertained that the removal of the nets could not be carried through unless a *quid pro quo* was secured in the form of additional spring angling. It might almost have been said, I think, that although no mention of the removal of nets appeared in the petition, the object of seeking to secure a longer period of angling, and of commencing the angling earlier in the spring, was in order to secure the removal of the nets for the general improvement of the local salmon stock.

The petition was granted, and the Ness nets were taken off.

Last autumn a curious return to the use of the nets has been insisted upon by the Town of Inverness. The Friar's Shot, in the river, and the Longman's Grave Shot, just outside the mouth of the river, have been let to the Moray Firth Salmon Fishery Co., Ltd., on lease for five years, and the lessees have been bound over to exercise the right of netting. The Moray Firth Salmon Fishery Co. is composed of the local proprietors, who desire by combined action to regulate the amount of salmon netting both in the sea and rivers, but especially in the rivers of the wide area they now control, with the object of conserving the stock of salmon. Colonel Ross of Cromarty, who acts as the Secretary of the Company, made a representation to the Municipal authorities of Inverness urging them to abstain from insisting upon the working of the nets as most detrimental to the general interests of the district, and in opposition to the policy of his Company, who desire to keep nets out of rivers as far as possible. He has furnished me with a copy of this statement, which deals with the situation and shows the policy of the Company.

Notwithstanding the representation made by the Moray Firth Salmon Fishery Co., however, the fishings were let, as stated.

I asked the Inverness authorities to be good enough to state the reason which impelled them to insert this condition and to insist upon its inclusion, and received a reply from the Town Clerk, the latter part of which runs as follows:—

“The majority of the Town Council, however, were of opinion that the “non-fishing of the Friar's Shot with net and coble did not improve the “rod fishings in the river, and they also thought that the sight of salmon “fishers plying their craft on the river added to the picturesqueness of a “town which has a position to maintain as a tourist resort. The Town “Council accordingly by a majority stipulated that the tenant of the “fishings should fish the Shot by means of net and coble—hence the “stipulation in the lease.”

Unless the deductions of those who have made a careful study of salmon fisheries, and the influence of netting the mouths of rivers, is entirely wrong, there can be no doubt that the majority of the Town Council of Inverness have made a mistake in forming the opinion that the removal of the net from the Friar's Shot did not improve the rod fishings in the river. They are entitled to do what they like with their own, and in the same way the river at Dochfour, Fort Augustus, or Invergarry might with equal right be netted as it once was. It is a pity, however, when Municipal authorities or other proprietors act without regard to the interests of those vested with equal rights of salmon fishing in the district. It is clear that even the tenants who have taken the fishings considered that the best interests of the district would be served by keeping the nets off, but that the Town Council have insisted upon the net being used whether neighbouring



proprietors like it or not. It does not appear that the District Fishery Board have taken any part in the discussion, and no doubt they felt they could not successfully interfere.

The situation exemplifies the oft-referred-to need for conjoint and systematic action in dealing with the fisheries of an entire district.

#### SPEY.

In the report from the Clerks of the Spey District Fishery Board, under the heading "The Spawning Season," is the statement that the number of breeding fish seen last winter in the river is a record one for a quarter of a century. This is of special interest in view of the normal or rather short stock elsewhere, and is no doubt the result of the removal of nets from the river. With the commencement of season 1904 the nets on the river were taken off down to the Cumberland Ford, below Fochabers Bridge (so called because it was here that Cumberland's army crossed before Culloden), thus leaving only about three miles of netted river. Since that date the rod fishing has very greatly improved. One or two proprietors have kindly shown me their records, but perhaps when I state that Mr. M'Corquodale, on the Dalcrov and Tulchan water, now kills to his own rod over 300 fish in the season, it will be sufficiently clear that the stock of fish has become extremely good.

Nine years have elapsed since the removal of the nets, and although I specially refer to the matter now, it must be understood that a steady improvement has been going on all the time, although certain angling seasons which have intervened have been climatically bad. Three years ago, for instance, I found that the rod results of one important fishing had increased 56 per cent. It is important to notice, however, that several steps with a view to improvement were taken before the improvement came. As far back as 1851, 23 bag and fly nets were removed from the coast in the immediate neighbourhood of the river mouth. In this way the scheduled estuary was very greatly enlarged, there being a stretch of coast between four and five miles, and containing the river mouth, in which the Duke of Richmond and Gordon voluntarily removed his fixed nets. The sweep net was still used in the river over about eight miles of water, and also in the sea at the river mouth. In 1888 the weekly close time at the uppermost netting station was voluntarily extended from 36 to 42 hours. In 1892 His Grace built a hatchery at Fochabers and began to rear annually 600,000 salmon smolts; in 1898 he added to the hatchery and constructed a large tank in which, under the hatchery roof, male and female fish could be kept before spawning time. In the same year a series of six ponds for rearing smolts were constructed at Cunninghaugh, near Tugnet, and at a later date six other ponds were added. Then in 1894 the topmost net, at Orton, where the close time had already been extended, was removed by the upper proprietors. This arrangement did not survive beyond the period of one lease of six years, as no material benefit was found to result.

With the larger and important step of removing all nets down to the Cumberland Ford, as already mentioned, the weekly close time became operative; fish were able to get past the remaining nets, and the upper river received its stock of fish at an earlier date. I may mention that it was calculated that by the step taken at least 6000 fish would annually be allowed to pass the nets.

The progeny of these additional fish are now making their presence seen in the improved state of the river's fisheries. I have not heard if the remaining nets have also benefited, but, arguing by what has happened elsewhere (Aberdeen Dee and the Wye in England), one may believe this to be the case. The inference that there is improvement all round is the natural one.

The same course might, with great advantage, be adopted in other districts. If we wish more salmon, we must fish less.

## DEVERON.

It is now six years since the nets of this river were taken off, and, although the rod fishing has improved, I understand it has not improved to such a marked extent as was anticipated by some. The Spey has now experienced nine years since the great reduction of the nets, and it is only in the last three years that marked improvement has been shown. Further, it has to be recollected that the Spey had not sunk to so low a level as the Deveron. In the latter river the progeny of the fish which ascended the first year in which there was freedom from nets (1907) could only appear in the river for the first time in 1911, as grilse, and as small spring fish last season. Moreover, the increase in the number of spawners had not become by any means great in 1908 or even 1909, so that a little more patience is necessary, in reason, before great results can be seen.

The season of 1911, as every angler recollects, was exceptionally dry and unsuitable for rod fishing. From the confidential results with which I have been kindly supplied since the removal of the nets, and which I cannot refer to in any detail without the consent of the various proprietors, it is clear that the total in that year was small. The total for 1912 is almost double, and is the best total I have yet received. The best results seem to have been secured near the mouth of the river, and in the topmost fishings. An encouraging sign is that the number of fish taken before the end of May is distinctly on the increase. As the stock of salmon increases, it is reasonable to suppose that spring fish will also increase. In the present season of 1913, I have heard of a few taken as early as the end of February or beginning of March. Other things being equal, I have not the least doubt that the stock of fish will come to the Deveron as has now come to the Spey.

Owing to the easy and unimpeded nature of the river in the middle reaches, I should expect fish to swim to the topmost waters pretty fast, and I believe those in the middle reaches would find great benefit from the insertion of a few croys such as are commonly used in the Tay and other rivers for the creation of lies for fish, by the direction of the current at well-chosen places. Such croys or jetties should be not only sloped downstream, but should be lowest at their outer ends to allow of flood water passing over the top. By their use, stretches of river destitute of natural lies may be greatly improved, while no harm is done to the interests of those above. Where a proprietor owns only one bank, it is necessary that the consent of the opposite neighbour be secured before any artificial structure of the kind can be legally introduced.

## AYR.

In my last report I referred to the various points which have recently required attention in this district. The District Board experienced some little difficulty in dealing with the Privick Mill Dam, but I am now able to report that the proprietor has placed a heck at the spot indicated by me, and has also provided the lade with a sluice.

At Barskimming Mill, delay has occurred owing to the reluctance of the proprietor to comply with the requirements of the Salmon Acts. A heck has, however, been put upon the tail race, where salmon formerly had a most easy entrance to the lade, and arrangements have been completed for the erection of a pass in the weir when winter floods and frosts are over.

It is reported to me by the Clerk of the District Fishery Board that enormous numbers of salmon have ascended this river last autumn, and

that in the upper reaches the great majority prefer the Lugar tributary rather than the main stream. It may be recollected that in past years I have been able to report the opening up of the weirs on the main river at Catrine. It would appear that with the increase of the stock of salmon consequent upon the various improvements which have been effected, more attention must in future be given to the Lugar, which enters the main river just above Barskimming weir. The Lugar is a stream of considerable size, draining 86 square miles of country, or only 10 miles less than the whole drainage area of the neighbouring river Girvan. It rises at "The Martyr's Grave," about three quarters of a mile south of the junction of the Greenock Water with the Ayr, and describes a crescent-shaped course past the villages of Lugar, Cumnock, and Ochiltree. From the iron works at the first-named village it becomes rather badly polluted, and many impurities are added to it at the other villages.

The double weir at Haugh, the property of Ballochmyle, previously referred to, has now been provided with a salmon pass, which I trust will work satisfactorily. The double arrangement of the weir has been retained, so that a pool exists between the two sections, and each "rise" is comparatively small. The total height is 6 feet 3 inches. The gap in the upper weir, at the intake of the pass, is 6 inches, in conformity with the requirements of the Byelaw; the gap in the lower weir, from which water is not drawn off to the mills, is 18 inches. In order to gain as easy a gradient as possible, both passes have been projected upstream from the respective sections of the weir. This plan was first adopted at Overmills on this river, and has been found to answer well.

With the increase in the number of fish ascending the river, the difficulty at the outlet of the Ayr Mill lade has become more marked. As previously indicated, the new fish pass has a lead from only one side of the river, and all fish which ascend by the left bank are unable to find the entrance. They naturally swim towards the outflow which comes from the mill lade. Here they lie in shallow water, and, when the lade sluices are shut down, fall a rather easy prey to evil-disposed persons who, at Ayr, are ever on the outlook for such a chance.

The District Fishery Board have the matter under consideration.

#### THE DOON.

Reference has been made more than once to the unsatisfactory conditions which prevail at the mouth of this river, where, with a shifting beach, the limits of the estuary are thrown out of proper relation to the mouth of the river. The suggestion which I made that a barrier should be erected so as to prevent the movement of gravel along the beach, and so allow the river to maintain its normal course, was taken up by the District Fishery Board, and plans were prepared and submitted to the Board of Trade.

The boundary of the Burgh of Ayr is the centre of the river Doon, and, although the defining of the river channel would not have affected the definition of the boundary of the Burgh, as I understand the matter, the Burgh Engineer took the opposite view, and also stated in his report to the Burgh Authorities that the proposed scheme would deprive the Ayr shore of a large amount of the material brought down during floods, and that gravel of benefit to the Burgh would be prevented from being washed from the south. He argued that through the absence of this beach-forming material the sea would make inroads upon the burgh shore, and that costly works would be required to obviate this. He also recommended that the outlet of the Slaphouse Burn, a very foul little stream which enters close to the mouth of the river, should be thrown into the Doon. The Committee of Proprietors combated these objections, but the engineer's



views were upheld by the Town of Ayr, who therefore appeared as objectors to the proposal. A former Burgh Engineer was asked to consider the proposal, and took up a position against the views of the acting Engineer. The Town then withdrew their objections as regards the loss of beach-forming material, and only required that the Slaphouse Burn should be included in the scheme. A neighbouring proprietor, unfortunately, now appeared as an objector on the ground that injury would be done to his foreshore, and that nuisance would result if the Slaphouse Burn were not included. Most material difficulties presented themselves in connection with the proposed inclusion of this burn, which I need not enter upon here, but it appeared to the Committee of Proprietors in charge of the scheme that the objections as regards the burn were being forced in order to defeat their efforts. They, however, agreed to include the Slaphouse Burn in the scheme in spite of the difficulty and, as it appeared to them, unnecessary expense. So far as I am aware, however, the matter has never received official sanction. The Clerk to the District Board, in his last report to me on the subject, says that the position remains practically unaltered since the objections were raised. It further appears that the Committee in charge have been discouraged by the unexpected and persistent opposition to this proposal for the general benefit of the salmon fisheries in the district.

#### GARNOCK.

In 1899 I inspected and reported upon a weir in this river which, from its construction, was a formidable barrier to the ascent of salmon and sea trout. The weir was, or is, only 4 feet 9 inches high, measuring from the surface level of the pool below, but has a concave down-stream face and a flat apron, a combination which prevents salmon ascending unless when plenty of water covers the obstruction. The river Garnock is also badly polluted, so that fish unable to ascend are affected in another way.

A correspondence began in July, 1899, with the object of securing a pass in this weir. I approached the Lanarkshire and Ayrshire Railway Co., Lord Eglinton's Factor, and Messrs. Baird, of the Eglinton Iron Works. The weir exists on a part of the river which was cut out artificially when the local railway was made, and the weir itself was erected for the benefit of Messrs. Baird, and in place of one which previously existed. To establish the precise ownership of the structure was matter of some difficulty. Mr. Thomas Orr, the Vice-President of the Garnock Angling Club, wrote to me in April, 1911, urging the necessity of the pass, and afterwards came to see me on the subject. From that time till October of 1912 the correspondence continued, when I was informed that Messrs. Baird had agreed to put in a pass. By letter dated 3rd February, 1913, I am informed by the Secretary of the Eglinton Iron Works that a pass has been inserted. I refer specially to the matter because of the extraordinary delays which have occurred in accomplishing this comparatively simple object, and to record the fact that it is at last accomplished.

#### BLADNOCH.

Some years ago a District Board was formed to supervise this river, and action was taken against certain mill-owners possessed of obstructions in the little river Tarff, a tributary of the Bladnoch. The action was, in the first instance, successful, but, owing to the discovery of a technical mistake in the formation of the District Fishery Board, the powers of the Board were called in question, and ultimately the statutory machinery for the enforcing of the Salmon Acts broke down rather suddenly. It therefore happens that the requirements of the Acts are not observed.

Since this date, however, a group of upper proprietors have acquired the



netting in the lowest stretch of the river, and for the two last years the nets have not been fished. At the same time the Borhoise dam pool in the upper river has been netted by one of the proprietors on one or two occasions each year. It appears from the result of this upper netting that the stock of fish in the river has not yet improved. The time has been so short that it would have been surprising if any marked increase had been noticed. The Tarff seems to be the chief spawning tributary, and this is still seriously obstructed.

It is felt locally that in the case of a small district like the Bladnoch, where proprietors who could form the Board are few in number, the duty of enforcing the Salmon Acts places those proprietors in an unenviable position, in that the odium is localised in a manner impossible in a large district. In certain localities the combination of two District Boards in the supervision of two united districts has the advantage of getting over this difficulty.

#### SOLWAY DEE.

In the spring of the year I entered into correspondence with a representative of the Dee proprietors with regard to the amount of netting carried on in this river. In August of the previous year (1911) I had corresponded with the District Fishery Board, who had written me on the subject of the different methods of fishing in the district and the possible adjustment thereof. Many of the upper proprietors fish pools with nets, and similar nets are regularly used at the mouth of the river. The Doaches of Tongland are not now fished as cruives, but the Shoulder Net, which is peculiar to this district, is fished regularly immediately below the doaches, and is no doubt a deadly engine for the securing of the fish which are checked by the obstructions referred to. In the estuary, with its soft muddy banks, the Yair Nets, peculiar also to this district, are fixed. The District Board, with the best interests of the river at heart, considered that the upper proprietors might be willing to give up their sweep netting if an arrangement could be come to by which Captain Hope, of St. Mary's Isle, would forego his use of the shoulder net and do away with doaches altogether. To ascertain the relative values of the various proprietors presented some difficulty, but steps were taken to ascertain as far as possible the actual state of the case. Mr. Wilkinson, who sits as Chairman of the Board and mandatory for Captain Hope, came to Edinburgh to see me, and the actual results of the doach, lower sweep net, and yair fishing for a series of years were submitted. The question then became one for the upper proprietors to consider, and the correspondence first referred to was continued. The fundamental conditions were that all netting above the doaches be given up, and that Captain Hope be given suitable compensation for renouncing his right of fishing at the doaches, either by means of the fishing boxes of the cruives themselves, or by means of the shoulder net. After the upper proprietors had had sufficient time to consider the matter, I had an opportunity of meeting them and of discussing the various aspects of the question. This meeting took place in Castle Douglas; the benefits of the step contemplated were, I hope, fully explained, and as a result a committee was appointed to bring the matter to a definite issue. After this committee had met, Captain Hope was asked to state a figure which he would accept for the fishings in question. In reply, Captain Hope explained that his lease of the Burgh of Kirkcudbright fishings (yair nets) terminates with the fishing season of 1915, and that any leasing of his own netting rights to the upper proprietors would have to terminate at the same time. The Burgh fishings are commonly let by public auction on a lease of 10 years. The question of the purchase of Captain Hope's fishings had, however, been more favoured than the possible

leasing, and on the basis of the actual values which had been previously submitted to me, and at 15 years' purchase fixed by Captain Hope, a sum was stated to the upper proprietors. I am unaware whether or not the upper proprietors considered the possible deduction of the values of their own nettings which were to be given up, but I have now been informed that the sum mentioned is considered as prohibitive. Negotiations have therefore come to an end, a result which I am sure all concerned greatly regret.

#### REPORTS FROM DISTRICT FISHERY BOARDS.

I have received reports from 34 District Fishery Boards as to the state of the salmon fisheries under their jurisdiction. Reports have not been received from the Deveron, Findhorn, Skye, and Nith. It is singular how often the blanks refer to the same districts. I have given in the Appendix as short a statement as possible respecting the various districts reported upon.

#### SALMON FISHERY RESEARCH.

For the present, I withhold special reports on the salmon marking. I may mention, however, that 20 recaptures have been made since my last (the 8th) report on the subject. Of these, nine are from the river Add, five being recaptured by myself in one day, when "marking" in that river in February. The scale examinations from Add fish promise also to yield most interesting results. We find that practically 50 per cent. of the fish examined have previously spawned. Also, of 36 scales taken during the marking operations above referred to, no fewer than five showed two spawning marks, and were again kelts. In salmon scale research this is a unique result, but I have learned that in one or two other localities, including the Wye in England, recent scale examination has revealed a larger percentage of previously-spawned fish than has previously been found. I have asked Mr. Menzies to prepare a short paper on the subject, which I hope to present shortly. Fortunately, when marking and taking scales a year ago, I retained scales of each of the five fish recently recaptured.

W. L. CALDERWOOD.

## APPENDIX P.

AN ABRIDGED STATEMENT OF REPORTS FROM  
DISTRICT FISHERY BOARDS AND OTHERS.

## REPORT FROM TWEED DISTRICT.

## Take of Fish—

1. The number of fish taken was :—
    - (a) By fixed engines in the sea—Below average.
    - (b) By sweep net in tidal or fresh waters—Below average.
    - (c) By rod and line—About the average of previous years.
  2. The actual number of fish caught has been as follows :—
    - (a) By fixed engine, 6024 (approximate).
    - (b) By sweep net, 33,385 (actual number).
    - (c) By rod and line, 2503 (approximate).
- Note.*—A considerable number of fish are caught in the open waters of which it is impossible to give an estimate.
3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
By Fixed Engine, ...	...	...	...	...	25	35	30	14days 10	...	...
By Sweep Net, ...	3·15	2·90	4·60	11·13	22·65	29·94	15·65	14days 9·98	...	...
By Rod and Line, ...	6·	4·65	3·55	2·58	·58	·68	2·19	4·58	28·46	46·73

Particulars as to the times grilse and sea trout appeared, as included in the above return, are as follow:—The first grilse caught by net was on 31st May. The first grilse caught by rod and line was on 4th May. The greatest number of sea trout and grilse were caught by net in July, and by rod and line in November.

4. The weight of the heaviest salmon taken during the season was—By rod and line, 40½ lbs. ; by net, 42½ lbs.
- The particulars of time and place of capture are :—By rod and line, on Hendersyde Water on 22nd November, by T. Taylor, Esq. ; by net at Watham fishery, near Horncliffe, on 5th September.

## Protection—

1. The assessable rental for 1911-1912 was £16,050 6s. 9d.
2. The assessment levied was £3210 1s. 4d.
3. The water bailiffs employed are as follows :—9 in July, 9 in August, 19 in September, 38 in October, 52 in November, 54 in December, 51 in January, 31 in February, 21 in March, 16 in April, 16 in May, 9 in June, and 1 engineer all the year.



4. Particulars as to prosecutions instituted are briefly as follow :—Prosecutions were instituted against 121 persons in season 1911-12. Fifty persons paid fine or were allowed time to pay, 54 persons were imprisoned, 4 absconded, 11 were acquitted or admonished, and proceedings were withdrawn in the case of 2 persons.

The principal offences were:—Killing salmon by means of illegal nets, cleek and light and rake-hooks, being in illegal possession of salmon and of engines for killing salmon, and assaulting and obstructing bailiffs.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—No byelaws.
3. Fish passes built or in prospect :—A pass for fresh-water trout is proposed to be built at Wells Cauld, on the Rule, to enable trout which are washed over the cauld to return to the lake. The proposed ladder or pass is not intended to carry salmon or sea trout.
4. Natural obstructions not yet dealt with :—None.

**Pollutions—**

1. The existing pollutions are :—Poisonous matters from mills and dyehouses in Selkirk, Peebles, Innerleithen, Walkerburn, Galashiels, Hawick, Jedburgh, and Chirnside. Household sewage from Biggar, West Linton, Eddleston, Melrose, St. Boswells, Kelso, Coldstream, Sprouston, Ancrum, Lilliesleaf, Earlston, Lauder, Berwick-on-Tweed, &c.
2. Remedial measures :—There are settling tanks connected with all the mills in Peebles which intercept the grosser parts of the mill effluent, but not much good. There are purification works connected with the mills in Selkirk, erected about 34 years ago. A new system of drainage and purification works have been erected in Galashiels. The purification works are only partly in operation up to date, but the whole of the town sewage is to be connected early next year. In Hawick there are irrigating tanks in a field, but they are not worked satisfactorily. A purifying plant has been erected at Chirnside Paper Mills with fair results.

**The Salmon Disease—**

1. Disease made its appearance, season 1911-12, in the month of November, and reached its height in January.  
The river was free of diseased fish in May.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts, - - - - -	1,227	510
Clean, - - - - -	70	40

**The Spawning Season, 1911-12—**

1. Fish were first spawning on 1st November (sea trout).
2. The greatest number spawned in December.
3. Spawning ceased in March.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as good.

**Smolts—**

1. Smolts were noticed to be migrating seawards in April and May.
2. As a smolt year 1912 was good.

*REPORT FROM FORTH DISTRICT.*

**Take of Fish—**

1. The number of fish taken was :—
 

(a) By fixed engine	}	Below the average.
(b) By sweep net		
(c) By rod and line—About the average.		
3. Particulars as to times grisle and sea trout appeared are as follows :—  
The most prolific months were July and August.

4. The weight of the heaviest salmon taken during the season was 48 lbs.  
The particulars of time and place of capture are :—21st August 1912 ;  
Dunmore, with a sweep net.

**Protection—**

1. The assessable rental for 1911-12 was £3756 6s. 8d.
2. The assessment levied was 4s. 6d. per £—£845 3s. 5d.
3. The water bailiffs employed are 10 in number and one superintendent.
4. Particulars as to prosecutions instituted are briefly as follow :—There were four contraventions of the Salmon Fishery detected for 1912, implicating 5 men and 2 boys. The cases consisted of having unclean fish in possession, killing and having salmon smolts in possession, taking salmon during the annual close time, fishing with rod and line during the close time for rod and line in the Forth District, and fishing for trout with salmon roe.

**Obstructions to the Passage of Fish—**

2. Are the bye-laws observed in every case?—No. Hecks are not kept at intakes and outlets of the mill lades.
3. Fish passes built or in prospect :—The fish pass on the Allan at Airthrey Dam Dyke has lately been improved by the erection at the intake of a sluice to regulate the flow of the water into the pass. The sluice this year has been a great success. When the river came down in flood the fish that failed to enter the pass were carried down into the pool below the pass, and, finding an easy access into the pass, and an equally easy ascent from the operation of the sluice, the fish ascended the pass in large numbers, and for the first time for several years practically the whole of the spawning fish were enabled by the improvements on the pass to ascend to the upper reaches of the Allan. Large numbers of fish have been seen on the spawning grounds, and it is anticipated that the present season will be one of the best spawning seasons in this district for many years.
4. Natural obstructions not yet dealt with :—Kippenross old cruive.

**Pollutions—**

1. The existing pollutions are :—Town sewage, dye works, paper works, gasworks, tanneries, mills, coal pits, and other industrial concerns.
2. Remedial measures :—A number of the parties concerned have been written to regarding the sewage from their works, and they have promised to do what they can to remedy this matter.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of October 1911, and reached its height in January 1912.  
The river was free of diseased fish in March.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts, - - - - -	366	150
Clean, - - - - -	29	—

**The Spawning Season—**

1. Fish were first noticed spawning on 21st October 1912.
2. The greatest number spawned in January 1912.
3. Spawning ceased at end of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as a good one. The numbers of breeding fish seen on the spawning grounds were about the average. The state of the water was high during the spawning season.

**Smolts—**

1. Smolts were noticed to be migrating seawards in March, May, June and July.
2. As a smolt year 1912 was about the average.

REPORT FROM TAY DISTRICT.

Take of Fish—

1. The Board has no means of obtaining information on this point.
2. The number of fish taken was :—
  - (a) By fixed engine—Under the average.
  - (b) By sweep net—Under the average.
  - (c) By rod and line—Spring fishing good ; autumn fishing poor.
3. Particulars as to the times grilse and sea trout appeared are as follow :—  
Sea trout appeared at the opening of the net fishing ; grilse on 3rd June.
4. The weight of the heaviest salmon taken during the season was 56½ lbs.  
The particulars of time and place of capture are :—Last week in June, on the Tay, 4 miles below Perth.

Protection—

1. The assessable rental for 1912 was £23,586 15s.
2. The assessment levied was £1651 1s. 7d.
3. The water bailiffs employed are 23 in number.
4. Particulars as to prosecutions instituted are briefly as follow :—Number of cases tried, 24 ; number of persons involved, 35. Fines paid, 8 ; imprisoned, 18 ; not yet settled, 8 ; total convicted, 34 ; not proven, 1—total, 35. During the winter of 1911-12 the Tay maintained a fairly heavy flow of water, with the result that there were fewer opportunities for offences under the Act. The majority of offences now consist of persons taking or attempting to take sick fish which drift into the shallow waters of the river.

Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect :—No change.
2. Are the bye-laws observed in every case ?—So far as known, yes.
3. Fish passes built or in prospect :—No new work undertaken this last season, but further operations have been carried out at the Falls of Tummel with the view of improving the intake to the pass and the depth of water in the pass. Further operations are contemplated.
4. Natural obstructions not yet dealt with :—Those undealt with are of small value to the fishery. Communications have, however, been opened with the proprietors of Dunalastair Falls and Dalcroy dam dyke for the opening up of these obstructions, but it is not anticipated meantime that much progress will be made in that direction. The proprietors concerned appear to hold that if salmon were there at the times when the conditions are suitable for running them these obstructions would not be insurmountable.

Pollutions—

1. The existing pollutions are the same as formerly reported. These are increasing in volume as the means of household sanitation improve.
2. Remedial measures :—There has been no change in these in the district since the last report.

The Salmon Disease—

1. The river was never free of diseased fish during the whole year.
2. The numbers of diseased fish taken from the river and destroyed are estimated as follows :—

	Males.	Females.
Kelts,     ...     800	500	300
Clean,     ...     20		

The Spawning Season—

1. Fish were first noticed spawning on 27th October.
2. The greatest number spawned in December.
3. Spawning ceased at end of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as fairly good. The fish were a good average, but the water was a shade heavier during spawning season than usual.



**Smolts—**

1. Smolts were noticed to be migrating seawards in March.
2. As a smolt year 1912 was under the average, so far as could be seen, but the water was fairly heavy and they were not so easily seen.

*REPORT FROM SOUTH ESK DISTRICT.***Take of Fish—**

1. The number of fish taken was :—
 

(a) By fixed engine	}	Good fishing till end of May, June rather poor, July and August bad, August poorest for many years.
(b) By sweep net		
(c) By rod and line—About an average.		
4. The weight of the heaviest salmon taken during the season was 43 lbs., by net, 30 lbs. by rod.

**Protection—**

1. The assessable rental for 1912 was £3601 10s.
2. The assessment levied was £324 18s. 10d.
3. The water bailiffs employed are 8 in number.
4. Particulars as to prosecutions instituted are briefly as follow :—Four cases of poaching were tried before the Sheriff this year, implicating seven persons—two cases for being in possession of salmon during the close time, one for fishing for trout with an net having an illegal mesh, one for killing trout with a hack in a lade. Two of the seven persons implicated were convicted, and the charge against two was found not proven. Fines ranged from 30s. to £2 10s. and expenses.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—The bye-laws are fairly well observed.
3. Fish passes built or in prospect :—None.
4. Natural obstructions not yet dealt with :—None.

**Pollutions—**

1. The existing pollutions are mostly from the town and mills of Brechin.
2. Remedial measures :—A few settling tanks have been put down, but have made little improvement.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of January, and reached its height in March.  
The river was free of diseased fish in June.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts	350	450
Clean,	-	160

**The Spawning Season—**

1. Fish were first noticed spawning during the first week of November at Brechin and Cortachy.
2. The greatest number spawned from the middle of December to the 10th of January.
3. Spawning ceased about the end of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as one of the best.

**Smolts—**

1. Smolts were noticed to be migrating seawards during April and May.
2. As a smolt year 1912 was good.

REPORT FROM NORTH ESK DISTRICT.

**Take of Fish—**

1. The number of fish taken by rod and line was 278 in September and October.
2. The spring fishing was very good. Grilse was a poor crop, although of good quality. Autumn salmon were scarcer than for many years.
3. Particulars as to the times grilse and sea trout appeared are as follow :—First grilse killed April 22nd, but they were not very general until after May. Sea trout were plentiful in April.
4. The weight of the heaviest salmon taken during the season by net was 51 lbs., and by rod and line, 38 lbs. The particulars of time and place of capture of the latter are :—October, Kinnaber Water, river mouth.

**Protection—**

1. The assessable rental for 1912 was £7,597 10s.
2. The assessment levied was 5½ per cent.
3. The water bailiffs employed are 12 in number, including superintendent.
4. No prosecutions instituted.

**Obstructions to the Passage of Fish—**

1. No dam dykes disused, built, or in prospect.
2. Bye-laws observed in every case.
3. No fish passes built or in prospect.
4. Natural obstructions not yet dealt with are :—Burn “loups” on North Esk, about 12 miles from mouth. “Loups” on West Water (tributary), about 12 miles from mouth.

**Pollutions—**

1. The principal existing source of pollution is the effluent from North Esk Distillery (when working), about a mile from the mouth of the river.
2. Remedial measures :—Filtering tanks.

**The Salmon Disease—**

1. Disease made its appearance in the month of December 1911, and reached its height in January 1912. The river was free of diseased fish in August 1912.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts, . . . . .	196	50
Clean, . . . . .	—	24

**The Spawning Season—**

1. Fish were first noticed spawning on 10th November 1911.
2. The greatest number spawned in December 1911.
3. Spawning ceased in March 1912.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as below average.

**Smolts—**

1. Smolts were noticed to be migrating seawards in April, May, and June.
2. As a smolt year 1912 was a good average.

REPORT FROM BERVIE DISTRICT.

**Take of Fish—**

1. Cannot give information as to the number of fish taken.
2. (a) By fixed engine—Salmon and trout above the average ; grilse a failure.  
(b) By sweep net—Average.  
(c) By rod and line—Average

3. Particulars as to the times grilse and sea trout appeared, as included in the above return, are as follow :—Grilse appeared in the first week of May ; sea trout were plentiful about the first week of June, both being about their usual time.
4. The weight of the heaviest salmon taken during the season was 42 lbs.  
The particulars of time and place of capture are :—On 18th April, in a bag-net at West Sheildhill.

**Protection—**

1. The assessable rental for 1912 was £1095 13s.
2. The assessment levied was 18½ per cent.
3. The water bailiffs employed are four in number.
4. Particulars as to prosecutions instituted are briefly as follow :—Seven persons reported for being found in possession of smolts. Fines imposed by Board and settled out of court. One man convicted of river poaching on two occasions and fined for each offence 10s. and £1 0s. 6d. of expenses. Accused went to prison. One case against crew (4 men) of Catterline salmon fishings for attempting to take fish during weekly close time by means of an inshore bag-net. Convictions obtained and each of the crew fined £1 with 18s. 8d. of expenses.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused :—One at Upper Mill of Allardice, and one at Mill of Arbuthnott ; neither of them an obstruction.
2. Are the bye-laws observed in every case ?—Yes.

**The Salmon Disease—**

1. Disease made its appearance in December 1911, and reached its height in January 1912.  
The river was free of diseased fish in the first week of March.
2. The number of diseased fish taken from the river and destroyed was :—51 males and 39 females—kelts.

**The Spawning Season—**

1. Fish were first noticed spawning on 3rd November 1911.
2. The greatest number spawned in November and December 1911, and January 1912.
3. Spawning ceased about 20th February 1912.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as having been very good. The river was in flood during the whole of the spawning season, and breeding fish were plentiful.

**Smolts—**

1. Smolts were noticed to be migrating seawards in March, April, May, and June.
2. As a smolt year 1912 was very good.

*REPORT FROM DEE DISTRICT (ABERDEENSHIRE).***Take of Fish—**

1. The number of fish taken was :—
  - (a) By fixed engines in the sea—Below average.
  - (b) By sweep net in tidal or fresh waters—Above average.
  - (c) By rod and line—An average over the whole district.
3. Particulars as to the times grilse and sea trout appeared are as follow :—Sea trout got at commencement of fishing season, and best take was in June. Grilse appeared in April—best run in July, but over the district the take of grilse was far below the average.
4. The weight of the heaviest salmon taken during the season was 47 lbs., by rod and line.  
The particulars of time and place of capture are :—Kingcaussie (about 7 miles up river), 47 lbs., 10th October. By fixed engine on sea coast, 43 lbs., on 25th July. By sweep net, 38 lbs., 12th April, at Pot and Ford's fishing, City of Aberdeen.



**Protection—**

1. The assessable rental for 1912 was £17,990 9s.
2. The assessment levied was 5½ per cent. thereon—yielding £989 9s. 5d.
3. The water bailiffs employed are 22 in number, including the inspector—5 for whole year, 14 for 7 months, and 3 for two months in spawning season.
4. Particulars as to prosecutions instituted are briefly as follow :—There were six prosecutions against persons for breaches of the Salmon Fisheries Acts, implicating seven men. Three of the cases were for setting nets in the channel at Aberdeen, implicating three men ; one, for setting lines in the river, one man. In the above four cases all were convicted and fined from 10s. to £3 and expenses. One case, implicating two men, for having smolts in their possession (settled out of Court). One case for trespassing on the banks of the river and fishing without the proprietor's permission (also settled out of Court).

**Obstructions to the Passage of Fish—**

1. There are no dam dykes.
4. Natural obstructions not yet dealt with are :—In the Feugh, at Banchory, and in the Luie near Braemar.

**Pollutions—**

1. The existing pollutions are :—At Culter Paper Mills, about 8 miles up river, but gradually diminished since last report ; and sewage from townships and farms on the banks of the upper river, which, on the contrary, rather increases.
2. Remedial measures :—The amount of sewage from Aberdeen City has been greatly diminished since the completion of the large main sewer which discharges into the sea.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of January, and reached its height in February.  
The river was free of diseased fish in April, attributable to heavy flooding in the river ; since then no disease apparent.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts, - - - - -	542	—
Clean, - - - - -	20	—

Some of the clean fish had evidently been crushed and destroyed by floating ice.

**The Spawning Season—**

1. Fish were first noticed spawning on 10th October.
2. The greatest number spawned in November and December.
3. Spawning ceased practically in the first week of January.
4. As regards numbers of breeding fish and state of the water, the past spawning season is regarded as above the average both for weight and numbers, but the river ran too high, which prevented the spawning season from being so successful as it would otherwise have been.

**Smolts—**

1. Smolts were noticed to be migrating seawards early in March.
2. As a smolt year 1912 was a good average both for numbers and size.

*REPORT FROM DON DISTRICT (ABERDEENSHIRE).*

**Take of Fish—**

1. The number of fish taken was :—
  - (a) By fixed engine—Considerably below the average.
  - (b) By sweep net—Considerably above the average.
  - (c) By rod and line—Above the average, but impossible to obtain exact information as to numbers.

3. Particulars as to the times grilse and sea trout appeared are as follow :—  
Sea trout were got at commencement of fishing season. Grilse first appeared on the coast on 20th May, and in the river on 25th June ; best run in July.
4. The weight of the heaviest salmon taken during the season was 48 lbs.  
The particulars of time and place of capture are :—At Muggiemoss, lower river, 48 lbs., by rod and line, on 21st October. On sea coast, by fixed engine, 43 lbs., in August. At cruive fishings, by sweep net, 37 lbs., also in August.

#### Protection—

1. The assessable rental for 1912 was £3381 0s. 9d.
2. The assessment levied was at 18 per cent. thereon, yielding £608 11s. 8d.
3. The water bailiffs employed are 15 in number, including inspector—9 for five months, 3 for eight months, and 3 permanently.
4. Particulars as to prosecutions instituted are briefly as follow :—There were 14 prosecutions against persons for breaches of the Acts, implicating 18 men. Two of the cases, implicating 3 men, were for using gaffs in an attempt to take salmon. Four cases, implicating 7 men, for having unreasonable salmon in possession. Two cases, implicating 2 men, for taking unseasonable salmon. One case, against 1 man, for fishing with a bang net. Five cases, implicating 5 men, for using instrument in dragging for salmon, or what is known as “sniggering.” Convictions were obtained in 10 of these cases, 3 were withdrawn, and 1 settled out of Court. The fines ranged from 10s. to £5, and expenses.

#### Obstructions to the Passage of Fish—

2. Are the bye-laws observed in every case?—No cause for complaint as to their not being observed.
3. Fish passes built or in prospect :—As the outcome of negotiations between the fishing proprietors and the millowners, following upon the judgment of the House of Lords in favour of the pursuers in an action at the instance of the Earl of Kintore and other riparian proprietors against Messrs. Pirie, the proprietors of Stonewood Mills, a private Act of Parliament was passed giving effect to an agreement for the construction of works having for their object the limitation for the abstraction of water from the river by the millowners, and the affording of increased facilities to salmon ascending the river.  
These works consist :—
  - (a) At Stonewood, of a large new fish pass in the Stonewood dyke, and the filling up of the old fish pass therein ; a spill weir wall in the Stonewood lade, with snow sluice, fixed crifice and emergency sluice therein for the purpose of automatically limiting the abstraction of water from the river.
  - (b) At Waterton, of the slapping of that dyke for the space of 40 feet, and the closing up of the Waterton intake so as to prevent any abstraction there, except at abnormal states of the river ; and
  - (c) At Muggiemoss, of a large new fish pass in the Upper dyke and a subsidiary dyke with a fish pass of equal capacity there, so as to form a pool between the upper and the subsidiary dykes.

Under the provisions of the Act of Parliament referred to, the millowners are bound to keep the fish passages running full at all states of the river, and in priority to their abstracting any water from the river for the purposes of their mills, and it is hoped that the result of these works will be the provision of a constant flow of water in the river at all states, sufficient for enabling salmon to ascend at any time throughout the year.

4. No natural obstructions.

#### Pollutions—

1. The existing pollutions are :—The discharge from mills on the lower river, also at Bucksburn and other townships on or near the banks of the upper river in the County of Aberdeen.
2. Remedial measures :—Measures are being taken with the view of preventing pollution so far as it may be found possible to do so.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of November, and reached its height in January.  
The river was free of diseased fish in May.
2. The number of diseased fish taken from the river and destroyed was as follows :—Kelts, 335—260 males and 95 females.

**The Spawning Season—**

1. Fish were first noticed spawning early in November.
2. The greatest number spawned at end of December.
3. Spawning ceased by end of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as above the average. The river ran high, but on the whole not unfavourable for successful spawning.

**Smolts—**

1. Smolts were noticed to be migrating seawards early in April.
2. As a smolt year 1912 was a fair average.

*REPORT FROM YTHAN DISTRICT.*

**Take of Fish—**

1. The number of fish caught by rod and line—100 salmon.  
By fixed engine—Below the average.  
By sweep net—Below the average.  
By rod and line—Below the average.
3. Particulars as to the times grilse and sea trout appeared are as follow :—  
First grilse caught at Newburgh fishings in May. First sea trout commenced to run up river in June.
4. The weight of the heaviest salmon taken during the season was 38½ lbs.  
The particulars of time and place of capture are :—In July, in a bag-net at Collieston fishings.

**Protection—**

1. The assessable rental for 1912 was £1384.
2. The assessment levied was £192 8s., being at the rate of a little over 2s. 9¼d. per £.
3. The water bailiffs employed are five in number during the winter and one all the year round.
4. Particulars as to prosecutions instituted are briefly as follow :—No prosecutions were instituted. In three cases money payments were accepted from the parties complained of, as acknowledgment of their having done wrong.

**Obstructions to the Passage of Fish.**

1. Dam dykes disused, built, or in prospect—None.
2. Are the bye-laws observed in every case ?—Fairly well observed.
3. Fish passes built or in prospect—One fish pass was rebuilt at Mill of Waterton, on Waterton burn.
4. Natural obstructions not yet dealt with—None.

**Pollutions—**

1. The existing pollutions are :—Ellon Burgh sewage.
2. Remedial measures :—None.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of December, and reached its height in January.  
The river was free of diseased fish in April.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts, . . . . .	105	14



**The Spawning Season—**

1. Owing to flooded water, fish could not be seen spawning.
2. The greatest number spawned in January.
3. Spawning ceased in January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as very good.

**Smolts—**

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1912 was very good.

*REPORT FROM UGIE DISTRICT.***Take of Fish—**

1. The take of fish generally throughout the district has been a little better than in season 1911.
2. The actual number of fish caught has been as follows :—
  - (a) By fixed engine—730 salmon, heaviest fish 39 lbs.; 800 grilse, average about 6 lbs.
  - (b) By sweep net—600 sea trout, from 2 to 10 lbs.
  - (c) By rod and line—35 salmon; 1500 finnock and sea trout.
3. Particulars as to the times grilse and sea trout appeared are as follow :—Grilse made their appearance about the 1st of April, and went off about the middle of August. Sea trout made their appearance in the month of June, and continued right on to October. There was a very good run.
4. The weight of the heaviest salmon taken during the season was 39 lbs. The particulars of time and place of capture are :—By fixed engines, at the mouth of the river Ugie.

**Protection—**

1. The assessable rental for 1912 was £784.
2. The assessment levied was 1s. 1½d. per £.
3. The water bailiffs employed are 5 in number—1 regular man, who has the assistance of 4 gamekeepers of Colonel Ferguson of Pitfour when on their beats.
4. Prosecutions instituted :—None.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect—None.
2. Are the bye-laws observed in every case?—Yes.
4. Natural obstructions not yet dealt with—None. The existing fish passes afford a free and natural passage to fish at all times.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of December 1911, and reached its height in January 1912. The river was free of diseased fish in May 1912.
2. The number of diseased fish taken from the river and destroyed was as follows :—4 males and 6 females—kelts.

**The Spawning Season—**

1. Fish were first noticed spawning on 20th November 1911.
2. The greatest number spawned between the end of November and end of December 1911.
3. Spawning ceased in the first week of January 1912.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as very good.

**Smolts—**

1. Smolts were noticed to be migrating seawards in the beginning of April 1912.
2. As a smolt year 1912 was very good. There was a great appearance in the tidal waters in the end of April and during May.

REPORT FROM SPEY DISTRICT.

Take of Fish—

3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

Month, 1912.	By Net and Coble.			By Fixed Engine.		
	Salmon.	Grilse.	Trout.	Salmon.	Grilse.	Trout.
Feb. 11th to 28th, . . . . .	10·6	—	0·2	2·6	—	—
March, . . . . .	6·2	—	0·6	9·5	—	0·4
April, . . . . .	10·3	—	2·8	10·0	—	1·1
May, . . . . .	20·5	0·2	19·7	25·5	—	9·7
June, . . . . .	34·4	34·5	62·1	21·8	20·9	42·9
July, . . . . .	11·6	56·1	13·3	17·5	66·0	43·7
August 1st to 26th, . . . . .	6·4	9·2	1·3	13·1	13·1	2·2
	100·0	100·0	100·0	100·0	100·0	100·0

4. The weight of the heaviest salmon taken during the season was a 50 lb. male.

The particulars of time and place of capture are :—By sweep net, near mouth of river Spey, on 27th April 1912.

Protection—

1. The assessable rental for 1912 was £10,304 15s.
2. The assessment levied was £1309 11s. 4d.
3. The water bailiffs employed are—One superintendent, one inspector, and 47 bailiffs.
4. Particulars as to prosecutions instituted are briefly as follow :—A shepherd, admonished by a Justice of the Peace for putting “sheep dip” liquid into a rivulet and thus poisoning several salmon fry. A boy of ten years, admonished by a Justice of the Peace for killing parr while angling on river Spey.

Obstructions to the Passage of Fish—

2. Are the bye-laws observed in every case?—Yes.

Pollutions—

1. The existing pollutions are :—Distilleries, if not kept down by the Board.
2. Remedial measures :—Various, including evaporation, bacterial tanks, irrigation on lands, etc., etc.

The Salmon Disease—

1. Disease made its appearance this year in the month of October, and reached its height in January.  
The river was free of diseased fish in June.
2. The number of diseased fish taken from the river and destroyed was 179 (from Fiddich), as follows :—

	Males.	Females.
Kelts, . . . . .	151	28

The Spawning Season—

1. Fish were first noticed spawning on 29th September 1911.
2. The greatest number spawned in November.
3. Spawning ceased at end of March.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded a record one for a quarter of a century.

Smolts—

1. Smolts were noticed to be migrating seawards in April and onwards.
2. As a smolt year 1912 was an average one.

*REPORT FROM LOSSIE DISTRICT.***Take of Fish—**

1. The number of fish taken was—By fixed engine, about an average.

**Protection—**

1. The assessable rental for 1912 was £327.
2. The assessment levied was—Voluntary contribution of £15 by Captain J. Brander, Dunbar, and £82 10s. 3d., being balance on year's working by His Grace the Duke of Richmond and Gordon.
3. The water bailiffs employed are 3 in number, in spawning season ; one for six weeks, smolt protection in early summer. Superintended by river Spey superintendent.
4. Particulars as to prosecutions instituted are briefly as follow :—A fish-monger, for exposing for sale an unclean or unseasonable sea trout, tried before Sheriff Court and fined £1, including expenses.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect :—No change during year.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—No change.
4. Natural obstructions not yet dealt with are :—Rocks or falls at Kellas during the past summer were, at the expense of the Board, through blasting operations by contract, much improved for an easier run up for spawning fish seeking the higher reaches of the river.

**Pollutions—**

1. The existing pollutions are :—Distilleries and City sewage.
2. Remedial measures :—Bacterial and irrigation.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of December, and reached its height in January.  
The river was free of diseased fish in June.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts, - - - -	38	16

**The Spawning Season—**

1. Fish were first noticed spawning on 7th October 1911.
2. The greatest number spawned in December.
3. Spawning ceased in middle of January 1912.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as a good average.

**Smolts—**

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1912 was an average one.

*REPORT FROM NAIRN DISTRICT.***Take of Fish—**

1. The number of fish taken was :—
  - (a) By fixed engine—Above average.
  - (b) By sweep net—Above average.
  - (c) By rod and line—Below average.
3. Particulars as to the times grilse and sea trout appeared are as follow :—  
First grilse appeared May 14th. Clean sea trout can be got in this river all the year round.
4. The weight of the heaviest salmon taken during the season was 37 lbs.  
The particulars of time and place of capture are :—Caught at Altonburn fishing station on 31st July.



**Protection—**

1. The assessable rental for 1912 was £1205 8s.
2. The assessment levied was 1s. 6d. per £—£90 8s. 1d.
3. The water bailiffs employed are two in number, one being permanent and the other being employed in the close season.
4. Prosecutions instituted :—None.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—No new fish passes built or in prospect.
4. Natural obstructions not yet dealt with :—None.

**Pollutions—**

1. None.

**The Salmon Disease—**

1. No disease.

**The Spawning Season—**

1. Fish were first noticed spawning on 4th November.
2. The greatest number spawned between 8th November and 12th December.
3. Spawning ceased at the middle of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as highly satisfactory. Water generally at half flood.

**Smolts—**

1. Smolts were noticed to be migrating seawards on 12th April. They were to be seen in great numbers in the month of May, and by 20th June they had disappeared from the river.
2. As a smolt year 1912 was very good.

*REPORT FROM NESS DISTRICT.*

**Take of Fish—**

1. The number of fish taken was :—  
By fixed engine—Below average.  
By rod and line, 629—Loch Ness 406, River Ness 223.
3. Particulars as to the times grilse and sea trout appeared are as follow :—  
Sea trout appeared in river in the month of April. Grilse were first observed in the river in the month of June.
4. The weight of the heaviest salmon taken during the season was 28 lbs.  
The particulars of time and place of capture are :—Caught with rod and line at Dochfour in September.

**Protection—**

1. The assessable rental for 1912 was £3835.
2. The assessment levied was £339.
3. The water bailiffs employed are three in number.
4. Particulars as to prosecutions instituted are briefly as follow :—One case of poaching by means of rod and line and killing a sea trout in river. This was brought by a proprietor of fishings on the river.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.
4. Natural obstructions not yet dealt with :—None.

**Pollutions—**

1. None.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of January, and reached its height in February.  
The river was free of diseased fish in March.
2. The number of diseased fish taken from the river and destroyed was as follows :—

	Males.	Females.
Kelts, . . . . .	35	4

**The Spawning Season—**

1. Fish were first noticed spawning on 27th October.
2. The greatest number spawned in November.
4. The numbers of spawning fish in the various rivers are very satisfactory and the water in good condition for spawning.

**Smolts—**

1. Smolts were noticed to be migrating seawards in May.
2. As a smolt year 1912 was below average.

*REPORT FROM CONON DISTRICT.***Take of Fish—**

2. The number of fish taken was :—
  - (a) By fixed engine—Above the average.
  - (b) By sweep net—About the average.
  - (c) By rod and line—About the average.
3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.
By Fixed Engine,	3	10	12	10	15	36	14	—	—
By Sweep Net,	9	12	11	14	16	30	8	—	—
By Rod and Line,	3	24	16	6	7	12	16	12	4

Particulars as to the times grilse and sea trout appeared, as included in the above return, are as follow :—The main run of sea trout was in March and April. Clean sea-trout in tidal waters of the Conon during the whole year. The first run of grilse about the middle of May.

4. The weight of the heaviest salmon taken during the season—Several salmon taken in bag-nets ranging from 20 to 26 lbs.  
The particulars of time and place of capture are :—One salmon caught at the Cromarty sweep net fishery in July ; weight about 30 lbs.

**Protection—**

1. The assessable rental for 1912 was £3153 10s.
2. The assessment levied was 1s. per £.
3. The water bailiffs employed are one inspector for the year and one temporary bailiff.
4. No prosecutions instituted.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect :—No change.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—No fish passes have been built nor are there any in prospect.
4. Natural obstructions not yet dealt with are :—Falls of Orrin, Falls of Scatwell, Falls of Conon, Falls of Rogie, and Falls of Garve.

**Salmon Disease—**

None.

**The Spawning Season—**

1. Fish were first noticed spawning on 26th October 1912.
2. The greatest number spawned from 5th to 20th November.
3. Spawning ceased about the middle of December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as an exceptional one. During August and part of September a very large number of salmon were noticed in the upper waters of the rivers Conon and Meig, and in the upper waters of the Blackwater. Not so many salmon have been seen in these districts by the oldest gamekeeper living there. Since the middle of September and up to date the rivers have been in high flood, consequently few salmon have been seen on the redds.

**Smolts—**

1. Smolts were noticed to be migrating seawards in the last week in March, and during April and May.
2. As a smolt year 1912 was fairly good.

NOTE.—During the fishing season 1912 no net fishing has been carried on in the Brahan salmon waters, nor have the cruives been fished. The spent heck sluice and two fishing boxes have been kept fully open to allow salmon to have a free run to the angling waters above.

*REPORT FROM KYLE OF SUTHERLAND DISTRICT.*

**Take of Fish—**

1. The number of fish taken was about the average generally throughout the district.
4. The weight of the heaviest salmon taken during the season was 37 lbs. The particulars of time and place of capture are:—Sea coast, 3rd August.

**Protection—**

1. The assessable rental for 1912 was £4511 17s. 6d.
2. The assessment levied was £281 19s. 10d.
3. The water bailiffs employed are 8 in number.
4. No prosecutions instituted.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect—None.
2. Are the bye-laws observed in every case?—So far as possible.
3. Fish passes built or in prospect—None.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of July, and reached its height in November. The river was free of diseased fish on 1st December.
2. The number of diseased kelt taken from the river and destroyed was 15 males and 25 females. No clean fish were found.

**The Spawning Season—**

1. Fish were first noticed spawning on 1st September.
2. The greatest number spawned between 15th October and 1st December.
3. Spawning ceased at end of December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as a very good one, with a very heavy stock of fish all over the district. The rivers have been in flood most of the time.

**Smolts—**

1. Smolts were noticed to be migrating seawards in May.
2. As a smolt year 1912 was a very good one.



**REPORT FROM SUTHERLAND—EAST COAST DISTRICT  
(RIVERS HELMSDALE, BRORA, AND FLEET.)**

**Take of Fish—**

2. The actual number of fish caught has been as follows :—
  - (a) By sweep net—Salmon 911, grilse 136, sea trout 95.
  - (c) By rod and line—2270 salmon, grilse, and sea trout.
3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.
By Sweep Net, {	Salmon	...	7	42	32	16	3	...
	Grilse	...	...	...	4	55	32	9
	Trout	...	...	...	14	76	7	3
By Rod and Line,	6	8	12	15	10	11	21	17

Particulars as to the times grilse and sea trout appeared are as follow :—First grilse caught in Brora sweep nets on 27th May. First sea trout caught on Brora sweep nets on 14th May.

4. The weight of the heaviest salmon taken during the season was 36 lbs. The particulars of time and place of capture are :—On 30th September 1912, on No. 4 beat, river Helmsdale.

**Protection—**

1. The assessable rental for 1912 was £2160, but angling mostly let with shootings and value not fully apportioned.
3. The water bailiffs employed are 4 in number, in addition to keepers who assist in watching.

**The Spawning Season—**

1. Fish were first noticed spawning on 25th October.
2. The greatest number spawned between the 3rd and 20th November.
3. Spawning ceased towards the end of November.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as good.

**Smolts—**

1. Smolts were noticed to be migrating seawards in April and May.
2. As a smolt year 1912 was up to the average.

*REPORT FROM DUNBEATH DISTRICT.*

**Take of Fish—**

1. The number of fish taken by fixed engine was below the average.
  3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—By fixed engine—March, 1 ; April, 10 ; May, 12 ; June, 25 ; July, 40 ; August, 12.
- Particulars as to the times grilse and sea trout appeared are as follow :—Sea trout—end of June (very scarce in this district). Grilse—end of June.
4. The weight of the heaviest salmon taken during the season was 28 lbs. The particulars of time and place of capture are :—22nd August 1912, a Dunbeath.

**Protection—**

1. The assessable rental for 1912 was £753.
2. No assessment levied yet.
3. No water bailiffs appointed yet.
4. No prosecutions instituted.

**The Salmon Disease—**

No disease observed.

*REPORT FROM WICK DISTRICT.*

SEASON 1911.

**Take of Fish—**

1. The number of fish taken was :—
  - (a) By fixed engines in the sea—Average.
  - (c) By rod and line—Below average ; very dry season.
3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—By fixed engine—Feb., 1 ; March, 3 ; April, 10 ; May, 15 ; June, 20 ; July, 30 ; August, 20.  
Particulars as to the times grilse and sea trout appeared are as follows :—  
Sea trout appeared 31st May. Grilse appeared 4th June.
4. The weight of the heaviest salmon taken during the season was 29 lbs.  
The particulars of time and place of capture are :—10th August, at Ackergill.

**Protection—**

1. The assessable rental for 1911 was £552.
2. The assessment levied was 1s. 10d. per £.
3. One water bailiff employed.
4. No prosecutions instituted.

**Smolts—**

1. Smolts were noticed to be migrating seawards at end of April.
2. As a smolt year 1911 was about the average.

*REPORT FROM WICK DISTRICT.*

SEASON 1912.

**Take of Fish—**

1. The number of fish taken was :—  
By fixed engine—Below the average.
3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—By fixed engine—Feb., 5 ; March, 1 ; April, 9 ; May, 15 ; June, 25 ; July, 40 ; August, 5.  
Particulars as to the times grilse and sea trout appeared are as follow :—  
Sea trout, 14th May. Grilse, 29th May.
4. The weight of the heaviest salmon taken during the season was 30½ lbs.  
The particulars of time and place of capture are :—6th August 1912, at Whaligoe.

**Protection—**

1. The assessable rental for 1912 was £530.
2. The assessment levied was 1s. 10d. per £.
3. One water bailiff employed.
4. No prosecutions instituted.

**The Salmon Disease—**

No disease was seen during the year.

**The Spawning Season—**

1. Fish were first noticed spawning on 1st November.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as average.

**Smolts—**

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1912 was average.

**COUNTY OF SUTHERLAND — NORTH COAST DISTRICT**  
(*RIVERS HALLADALE, NAVER, BORGIE, KINLOCH,*  
*AND HOPE*).

**Take of Fish—**

1. The actual number of fish caught has been as follows :—
  - (a) By fixed engine—579 salmon, 1729 grilse, and 10 sea trout.
  - (b) By sweep net—1285 salmon, 2648 grilse, and 68 sea trout.
  - (c) By rod and line—472 salmon, 126 grilse, and 1151 sea trout.
3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

		Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.
By Fixed Engine,	{ Salmon	...	...	3	29	46	22	...	...
	{ Grilse	...	...	...	1	59	40	...	...
	{ Trout	...	...	...	10	30	60	...	...
By Sweep Net,	{ Salmon	...	...	...	33	51	11	...	...
	{ Grilse	...	...	...	2	71	27	...	...
	{ Trout	...	...	...	3	27	70	...	...
By Rod and Line,	{ Salmon	6	22	26	12	5	9	11	9
	{ Grilse	...	...	...	1	8	42	33	16
	{ Trout	...	...	2	2	9	47	28	12

Particulars as to the times grilse and sea trout appeared, as included in the above return, are as follow :—First grilse caught by bag-net on 17th May. First sea trout caught by rod on 15th March.

4. The weight of the heaviest salmon taken during the season was 32 lbs. The particulars of time and place of capture are :—In bag-net east from Bighouse Head.

**Protection—**

1. The assessable rental for 1912 was £1300, per valuation roll. Angling mostly let with shootings, and not apportioned at full value.
3. The water bailiffs employed are four in number, in addition to keepers who assist in the watching.

**The Spawning Season—**

1. Fish were first noticed spawning on 22nd October.
2. The greatest number spawned from 8th November to 20th November.
3. Spawning ceased on 1st December.
4. As regards number of breeding fish, and state of water, the past spawning season is regarded as fair. Rivers were high during spawning season.

**Smolts—**

1. Smolts were noticed to be migrating seawards in May and the beginning of June.
2. As a smolt year 1912 was fair.

*REPORT FROM GRUDIE (DURNESS) DISTRICT.*

**Take of Fish—**

2. The actual number of fish caught has been as follows :—
  - (a) By fixed engines in the sea—69.
  - (b) By sweep net in tidal or fresh waters—0.
  - (c) By rod and line—849.
3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—By fixed engine—June, 49 ; July, 50. By rod and line—June, 34 ; July, 17 ; August, 26 ; Sept., 23. Particulars as to the times grilse and sea trout appeared are as follow :—On Dionard, sea trout appear in May and grilse in July.
4. The weight of the heaviest salmon taken during the season was, by fixed engine, 23 lbs., and by rod, 16 lbs. The particulars of time and place of capture are :—Former near mouth of Loch Erriboll in June ; latter on Lower Dionard in September.



**Protection—**

3. Secured by the proprietor, Mr. Gilmour of Rosehall.
4. No prosecutions instituted.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect—None.
2. Are the bye-laws observed in every case?—Yes.
3. Fish passes built or in prospect :—None.
4. Natural obstructions not yet dealt with—None.

**Pollutions—**

No pollutions.

**The Salmon Disease—**

1. There has been no disease.

**The Spawning Season—**

1. Fish were first noticed spawning on 28th October.
2. The greatest number spawned by 10th November.
3. Spawning ceased in last week of November.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as under an average.

**Smolts—**

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1912 was very good.

*REPORT FROM BALGAY DISTRICT.*

**Take of Fish—**

3. Particulars as to the times grilse and sea trout appeared are as follow :—  
Sea trout appeared in the sea and mouth of river Balgay and Kinloch in June and July. A few salmon and grilse following and later on.
4. The weight of the heaviest salmon taken during the season was not certain. The particulars of place of capture are :—The river Balgay, by rod and line.

**Protection—**

1. All expenses paid by C. J. Murray, Esq., of Lochcarron, and the Earl of Lovelace.
3. One water bailiff employed.
4. No prosecutions instituted.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect—None.
4. Natural obstructions not yet dealt with are :—The Inverbain falls, on the Black Water, or Inverbain river.

**Pollutions—**

1. No pollutions.

**The Salmon Disease—**

1. There has been no disease.

**The Spawning Season—**

1. Fish were first noticed spawning on 10th October—sea trout.
2. The greatest number spawned in October and first week of November.
3. Spawning ceased about the end of November or first week of December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as an ordinary good season, but fish are not more numerous than in former years—I should say they are the reverse.

**REPORT FROM LOCHY DISTRICT.****Take of Fish—**

1. The number of fish taken was :—  
(c) By rod and line—Below average.
2. Expressed as percentages for each month of the season, the figures are :—

	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.
By rod and line,	...	...	·4	·5	4·1	40	32	15	8

Particulars as to the times grilse and sea trout appeared are as follow :—

A few in June and first week in July, particularly sea trout.

4. The weight of the heaviest salmon taken during the season was 37 lbs.  
The particulars of time and place of capture are :—5th June, on No. 5 beat, with small fly and light tackle.

**Protection—**

1. The assessable rental for 1912 was £2269 10s.
2. The assessment levied was  $\frac{3}{4}$ d. per £.
3. The water bailiffs employed are 12 in number.
4. No prosecutions instituted.

**The Spawning Season—**

1. Fish were first noticed spawning at end of October on river Roy.
2. The greatest number spawned at end of November.
3. Spawning ceased on 25th December.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as short. River mostly high.

**Smolts—**

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1912 was fairly good.

**REPORT FROM AWE DISTRICT.****Take of Fish—**

1. The number of fish taken was about the average of 1911 up to 15th July, then a sudden fall off. Sea trout very much below the average of 1911.
3. Particulars as to the times grilse and sea trout appeared are as follow :—  
Salmon on April 15th ; grilse, 5th June ; sea trout, 13th June.
4. The weight of the heaviest salmon taken during the season was 49 lbs.  
The particulars of time and place of capture are :—River Awe, by rod and line, October 29th.

**Protection—**

1. The assessable rental for 1912 was £1518.
2. The assessment levied was 1s. 9d. per £.
3. The water bailiffs employed are 1 in number, and one assistant.
4. No prosecutions instituted.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.

**The Spawning Season—**

1. Fish were first noticed spawning on 31st October, sea trout ; salmon, November 12.
2. Could not be ascertained owing to the heavy floods.

3. Spawning ceased about the middle of December.
4. Owing to state of rivers during the spawning season, the number of breeding fish could not be got with any certainty. Rivers were running in high flood from 13th November to 3rd January, 1913.

**Smolts—**

1. Smolts were noticed to be migrating seawards on 2nd March, in fairly good numbers.
2. As a smolt year 1912 was fairly good.

*REPORT FROM FEOCHAN DISTRICT.*

**Take of Fish—**

1. The number of fish taken was above the average up to the end of July, then a sudden fall off.
  - (a) By fixed engines in the sea—Sea trout very much below the average.
  - (b) By sweep net in tidal or fresh waters—Above the average for salmon and grilse.
  - (c) By rod and line—About the average.
3. Particulars as to the times grilse and sea trout appeared are as follow :—  
Sea trout, 17th June ; grilse, 26th June.
4. The weight of the heaviest salmon taken during the season was 25 lbs. The particulars of time and place of capture are—Loch Feochan. Sweep net.

**Protection—**

1. The assessable rental for 1912 was estimated, subject to allocation by assessor, at £213.
2. The assessment levied was 1s. 9d. per £.
3. The water bailiffs employed are 1 in number, and one assistant.
4. No prosecutions instituted.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect :—One, river Nell.
2. Are the bye-laws observed in every case ?—Yes.

**Pollutions—**

1. None.

**The Salmon Disease—**

1. None.

**The Spawning Season—**

1. Fish were first noticed spawning on 26th October, sea trout.
2. Could not be ascertained owing to the rivers being in high flood.
3. Spawning ceased about the first week of December.
4. Water running very high during the spawning season ; it was impossible to ascertain the number of breeding fish.

**Smolts—**

1. Smolts were noticed to be migrating seawards on April 23, in fair numbers. In May, smolts were numerous in Loch Nell, 4 to 5 inches long.
2. As a smolt year 1912 was fairly good, but greater number was late.

*REPORT FROM CLYDE AND LEVEN DISTRICT, INCLUDING  
LOCH LOMOND.*

**Take of Fish—**

1. The take of fish by sweep net in the tidal waters of the Clyde estuary has been rather above, and by rod and line in the Loch Lomond basin, has been very much above, the average of previous seasons.



2. The actual number of fish caught has been as follows :—
- (a) By sweep net in tidal waters of Clyde estuary—(1) 359 salmon and grilse, (2) 2101 sea trout.
- (b) By rod and line (approximately)—In Loch Lomond, exclusive of tributary streams—(1) 127 salmon and grilse, (2) 1464 sea trout.

Taking the figures of rod-caught salmon and grilse in Loch Lomond for the last ten years, the first five consecutive years, 1903-1907, show 271 fish (average 54 fish per season); the second, 1903-1912, show 582 fish (average 116 per season).

NOTE.—There are no fixed engines in the district. Estuary netting began June 8th and terminated July 20th, netting being conducted on 33 days. Saturday was added, as well as Monday, to the weekly close time.

3. Expressed as percentages for each month of the season, so as to show the times of greatest run, the figures are :—

		Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.
*By Sweep Net	{ Salmon, and Grilse Sea trout,	...	...	...	75	25	...	...	...
		...	...	...	57	43	...	...	...
By Rod and Line,	{ Salmon and Grilse Sea trout,	1	8	18	25	19	14	12	2
		...	$\frac{1}{2}$	1	3	23	39	25	$8\frac{1}{2}$

\*In view of the restricted and intermittent netting, these figures have little value.

Particulars as to the times grilse and sea trout appeared, as included in the above rod returns, are not noted.

4. The weight of the heaviest salmon taken during the season was 42 lbs. It was captured in Loch Lomond, off Balloch Pier, at the head of the Leven, by an angler (Mr. Wm. S. Millar, Lennoxbank, Balloch), trolling with a No. 5 blue and silver phantom. It was caught on March 22, being the first fish of the season.

#### Protection—

1. The water bailiffs employed are as noted in last report.
2. Particulars as to prosecutions instituted are briefly as follows :—A case of illegal netting was detected in the Clyde; respondents convicted at Dumbarton. Two cases, involving dragging for salmon and attempted illegal gaffing, detected in the Endrick; respondents convicted at Stirling.

#### Obstructions to the Passage of Fish—

1. Dam dykes disused, built, or in prospect—None.
2. Are the bye-laws observed in every case?—Yes.
3. Fish passes built or in prospect—None.
4. Natural obstructions not yet dealt with are as in former reports.

#### Pollutions—

1. The existing pollutions are as formerly specified. On one day only, viz., July 3, were fish reported to be in a sickly and dying condition in the Leven.
2. Remedial measures have now been introduced on the Leven for Dalmonach Works, where entirely new settling tanks are understood to have been constructed. It is submitted that these should be inspected at an early date by some competent authority.
3. The Corporation of Glasgow is still proceeding with the purification of the Clyde. It is submitted that the Board might now advantageously approach the Town Clerk of Glasgow for a plan and report showing the progress of the scheme. It is believed that such are from time to time being prepared.

**The Salmon Disease—**

1. There is practically no disease in the district.

**The Spawning Season—**

1. Fish were first noticed spawning on October 7 (sea trout), November 7 (salmon).
2. The greatest number spawned in November.
3. Spawning ceased in January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season was at first favourable, fish being abundant ; but subsequent heavy floods are believed to have destroyed great quantities of spawn deposited in the smaller streams. Prior to the floods, there were got locally and placed in Luss Hatchery 135,000 salmon ova and 110,000 sea trout ova. In spring, 1912, the resulting fry of 100,000 salmon ova and 80,000 sea trout ova were distributed in the streams. The estimated hatchery loss was 3 per cent.

**Smolts—**

1. Smolts were first noticed to be migrating seawards in March.
2. As a smolt year 1912 was about the average.

*REPORT FROM AYR DISTRICT.*

**Take of Fish—**

1. The take of fish generally throughout the district was below the average of previous seasons. This, however, is entirely accounted for by the dry state of the weather. The sea fishings are not let by the proprietor, and, as there is no netting employed in any part of the river, the fish have all been taken by rod and line.
2. As most of the proprietors do not keep an accurate record, or any record at all, of the times when, and the actual number of fish caught, it is impossible to give reliable information on the subject.
3. Particulars as to the times grilse and sea trout appeared are as follow :—Runs of grilse and sea trout took place in the end of May and throughout June. The largest runs of salmon took place in June and July. Salmon were running almost continuously throughout October.
4. The weight of the heaviest salmon taken during the season was 26½ lbs. The particulars of time and place of capture are :—It was captured at Overmills, about two miles from the sea, in the fishery belonging to the Crown leased to the Burgh of Ayr. The lure used was bait.

**Protection—**

1. The assessable rental for 1912 was £447 5s.
2. The assessment levied was £167 14s. 6d.
3. The water bailiffs employed are two in number. During the season an additional bailiff is employed on the lower reaches of the river.
4. Particulars as to prosecutions instituted are briefly as follow :—One man was prosecuted for poaching, and convicted and fined.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect :—The double weirs at Haugh, Mauchline, were repaired during the season. These weirs, which were constructed of wood, had fallen into a dilapidated state, and had been for a long time a serious obstruction to the ascent of fish. They have now been put into a state of repair, and there has been inserted in each a bye-pass of a very satisfactory nature.
2. Are the bye-laws observed in every case ?—The bye-laws are generally observed.
3. Fish passes built or in prospect :—(1) The passes at Haugh above referred to. (2) The proprietor of the dam at Barskimming Mill, Mauchline, has undertaken to construct in the spring of 1913 a pass in conformity with the Bye-laws in the said dam.
4. No natural obstructions.

**Pollutions—**

1. There are no pollutions.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of August 1911, and continued to March 1912.  
The river was free of diseased fish in March 1912.
2. The number of diseased fish taken from the river and destroyed was 93—78 males and 15 females.

**The Spawning Season—**

1. Fish were first noticed spawning on 15th November 1911.
2. The greatest number spawned in December and January.
3. Spawning ceased in the last week in January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as fair. There were a very large number of fish on the spawning beds, but much of the spawn must have been destroyed owing to the very heavy floods which occurred during the spawning season.

**Smolts—**

1. Smolts were noticed to be migrating seawards in April, May, and June.
2. As a smolt year 1912 was above the average.

*REPORT FROM DOON DISTRICT.***Take of Fish—**

1. As compared with the results of previous years, the take of fish generally throughout the district was below the average. This is accounted for by the dry state of the weather throughout practically the whole season.
2. As many of the proprietors do not keep an accurate, or any record at all, of the times when, and the actual number of fish caught, it is impossible to give reliable information on the subject. Most fish were killed in October. The first salmon was caught in the sea nets on 22nd February. The first salmon by rod and line was caught in the tidal waters on 1st March ; weight 8 lbs.
3. Particulars as to the times salmon, grilse, and sea trout appeared are as follow :—The first run of spring fish took place on 2nd December 1911, and the second run on 22nd February. There were runs of salmon and sea trout in June and first week in July. The principal runs took place in the last week in July and first week in August. No separate runs of grilse and sea trout at the usual times were observed. The heaviest run of sea trout took place on 17th October, which is an unusually late date.
4. The weight of the heaviest salmon taken during the season by rod and line was 23 lbs.

The particulars of time and place of capture are :—It was killed on the Auchendrane stretch of the river, about four miles from the sea. The heaviest salmon taken in the sea nets weighed 30 lbs.

**Protection—**

1. The assessable rental for 1912 was £499.
2. The assessment levied was £212 1s. 6d.
3. The water bailiffs employed are two in number. During the season an extra bailiff was employed to assist in the watching of the lower reaches of the river.
4. There were no prosecutions instituted during the year.

**Obstructions to the Passage of Fish—**

2. Are the bye-laws observed in every case?—Yes.
3. Fish passes built or in prospect :—None.
4. Natural obstructions not yet dealt with :—The only natural obstruction not yet dealt with is the bar of sand and shingle blocking the mouth of the river. A number of the proprietors of salmon fishings in the river endeavoured to have the matter remedied, but unfortunately their proposals had to be abandoned owing to the objections of a proprietor of the adjoining foreshore.



**The Spawning Season—**

1. Fish were first noticed spawning in the first week in December.
2. The greatest number spawned towards the middle of December.
3. Spawning ceased towards middle of January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as a good one.

**Smolts—**

1. Smolts were noticed to be migrating seawards in June.
2. As a smolt year 1912 was good.

*REPORT FROM GIRVAN DISTRICT.*

**Take of Fish—**

1. The actual number of fish caught has been as follows :—
  - (a) By fixed engines in the sea—About 600 salmon, 400 grilse, and 370 sea trout (reported by lessees).
  - (b) By sweep net in tidal or fresh waters—None.
  - (c) By rod and line—45 salmon and 203 sea trout, so far as recorded.
3. Particulars as to the times grilse and sea trout appeared are as follow :—  
First salmon caught 7th March, 6½ lbs.; second salmon, 13th March, 7½ lbs.; first sea trout, 21st May, 3½ lbs.
4. The weight of the heaviest salmon taken during the season was 42 lbs.  
The particulars of time and place of capture are :—Captured in July, in bag-net in Estuary.

**Protection—**

1. The assessable rental for 1912 was £543 10s.
2. The assessment levied was £27 3s. 6d.
3. One water bailiff employed.
4. No prosecutions instituted.

**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes, so far as known.
3. Fish passes built or in prospect :—None.
4. Natural obstructions not yet dealt with :—None.

**Pollutions—**

1. The existing pollutions are :—Pollution from water oozing from old disused pits at Dailly still continues, also from working collieries. Pollution from Maybole sewage works is being remedied at a cost of about £2500 to that Burgh. Pollution from crude sewage being allowed to run into the river at Girvan, from w.c.'s, etc., has in several cases been put a stop to, but there is still some crude sewage reaching the river from houses where it has been found difficult to use the ordinary town drains owing to levels. The Burgh authorities in these cases are responsible, and they will probably be asked to adopt other means for the disposal of this sewage.

**The Salmon Disease—**

1. No disease.

**The Spawning Season—**

1. Fish were first noticed spawning at end of November.
2. The greatest number spawned about the latter end of December.
3. Spawning ceased early in January.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as average.

**Smolts—**

1. Smolts were noticed to be migrating seawards in the beginning of April as usual.
2. As a smolt year 1911 was average.

NOTE.—The lessees of sea fisheries had not so good a year in 1912, and their idea is that the fish were not on the coast in such numbers as usual.

*REPORT FROM STINCHAR DISTRICT.***Take of Fish—**

1. The number of fish taken was :—
  - (a) By fixed engine—Below the average.
  - (c) By rod and line—Below the average.
3. Grilse and sea trout appeared about the middle of May.
4. The weight of the heaviest salmon taken during the season was 30½ lbs.

**Protection—**

1. The assessable rental for 1912 was £400.
2. The assessment levied was £15.
3. One water bailiff is employed during spawning period. The various proprietors protect their own reaches of the river.

**The Salmon Disease—**

1. No disease observed.

**The Spawning Season—**

1. Fish were first noticed spawning on 25th November.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as fairly good.

**Smolts—**

1. Smolts were noticed to be migrating seawards in beginning of May.
2. As a smolt year 1912 was above the average, smolts being very plentiful.

*REPORT FROM CREE DISTRICT.***Take of Fish—**

2. The actual number of fish caught has been as follows :—
  - (a) By fixed engine—Below average.
  - (b) By sweep net—None.
  - (c) By rod and line—Below average. Total 123.
4. The weight of the heaviest salmon taken during the season was 19 lbs., by rod. By net, not known ; probably over 30 lbs.  
The particulars of time and place of capture are :—By rod, end of March, Borland, West Pool.

**Protection—**

1. The assessable rental for 1912 was £943.
2. The assessment levied was at 9½d. per £—£37.
3. The water bailiffs employed are 3 in number.
4. No prosecutions instituted.

**Obstructions to the Passage of Fish**

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.
4. Natural obstructions not yet dealt with :—None.

**Pollutions—**

1. None complained of.
2. Remedial measures :—None.

**The Salmon Disease—**

1. No disease.

**The Spawning Season—**

1. Fish were first noticed spawning on 30th October 1912.
2. The greatest number spawned in November.
3. Spawning ceased—Not known.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as poor.

**Smolts—**

1. Smolts were noticed to be migrating seawards on 21st May 1912.
2. As a smolt year 1912 was very good.

*REPORT FROM DEE DISTRICT (SOLWAY.)*

**Take of Fish—**

2. The actual number of fish taken was :—  
(c) By rod and line—About 80, below the average.
3. Grilse appeared 10th June ; sea trout, 30th June.
4. The weight of the heaviest salmon taken during the season was 19½ lbs.  
Place of capture:—Tongland.

**Protection—**

1. The assessable rental for 1912 was £1455 10s.
2. The assessment levied was 8 per cent.
3. One water bailiff employed.
4. No prosecutions instituted.

**The Salmon Disease—**

No Disease.

**The Spawning Season—**

1. Fish were first noticed spawning on 28th October.
2. The greatest number spawned by 4th November.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as very poor. The river was in spate nearly all the time.

**Smolts—**

1. Smolts were noticed to be migrating seawards in April.
2. As a smolt year 1912 was up to the average.

*REPORT FROM ANNAN DISTRICT.*

**Take of Fish—**

2. The actual number of fish caught cannot be given.  
Salmon about an average, but grilse and sea trout greatly below the average.
4. The weight of the heaviest salmon taken during the season was 41 lbs.—a male, measuring 3 feet 10 inches in length and 2 feet 2 inches in girth.  
The particulars of time and place of capture are :—On 6th September, on Newbie fishings.

**Protection—**

1. The assessable rental for 1912 was £2981 10s.
2. The assessment levied was 3s. 6d. per £.
3. The water bailiffs employed are four in number.
4. No prosecutions instituted.



**Obstructions to the Passage of Fish—**

1. Dam dykes disused, built, or in prospect :—None.
2. Are the bye-laws observed in every case ?—Yes.
3. Fish passes built or in prospect :—None.
4. Natural obstructions not yet dealt with :—None.

**The Salmon Disease—**

1. Disease made its appearance this year in the month of January and reached its height in March.  
The river was free of diseased fish in May.
2. The number of diseased fish taken from the river and destroyed was 16 males and 7 females.

**The Spawning Season—**

1. Fish were first noticed spawning on 1st January 1912.
2. The greatest number spawned in January.
3. Spawning ceased in March.
4. As regards numbers of breeding fish, and state of the water, the past spawning season is regarded as good.

**Smolts—**

1. Smolts were noticed to be migrating seawards on 7th May 1912.
2. As a smolt year 1912 was fairly good.

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*Note.*—Since going to press I have received brief reports as to the rod catch at Kirkaig, Inver, and Inchard, viz. :—

Kirkaig,	..	..	..	26
Inver,	..	..	..	45
Inchard,	..	..	..	54

W. L. C.

APPENDIX Q.  
RATEABLE VALUE OF SALMON FISHERIES, IN DISTRICTS WHERE BOARDS HAVE BEEN FORMED, FOR THE YEARS 1881 TO 1912 INCLUSIVE.

YEAR.	Alness.		Anman.		Awe.		Ayr.		Balgay.		Bervie.		Conon.		Cree.		Dee (Aberdeen).		Dee (Salway.)	
	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.
Average for 5 years, 1881 to 1885	£ -	£ 1,729	£ -	£ 2,022	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ 546	£ 10,127	£ -	£ 1,201	£ -
Average for 5 years, 1886 to 1890	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	532	11,773	-	1,568	-
1891	-	2,112	701	-	-	-	40	-	40	586	-	530	-	2,560	11,968	-	1,463	-	1,463	-
1892	-	2,099	718	-	-	-	40	-	40	586	-	530	-	2,756	12,336	-	1,463	-	1,463	-
1893	-	2,165	723	-	-	-	40	-	40	586	-	544	-	2,975	13,911	-	1,463	-	1,463	-
1894	579	2,778	723	-	-	-	40	-	40	536	-	554	-	2,944	14,489	-	1,463	-	1,463	-
1895	584	2,793	896	752	-	-	20	36	20	536	566	554	2,755	14,593	542	13,461	1,633	1,497	-	-
1896	584	3,182	896	-	896	-	20	-	20	1,071	-	571	-	2,455	15,820	-	1,603	-	1,603	-
1897	614	3,182	878	-	878	-	20	-	20	1,071	-	571	-	2,590	16,176	-	1,638	-	1,638	-
1898	508	3,182	878	100	878	100	20	-	20	871	-	696	-	2,554	17,468	-	1,603	-	1,603	-
1899	609	3,182	870	110	870	110	42	-	42	871	-	696	-	2,554	17,427	-	1,603	-	1,603	-
1900	610	3,182	870	110	870	110	20	24	20	871	951	696	2,521	18,989	646	17,176	1,603	1,609	-	-
1901	606	3,196	936	110	936	110	20	-	20	910	-	696	-	3,142	19,419	-	1,596	-	1,596	-
1902	601	3,197	936	110	936	110	20	-	20	910	-	696	-	3,141	19,455	-	1,557	-	1,557	-
1903	617	3,197	1,052	110	1,052	110	40	-	40	910	-	691	-	3,108	18,393	-	1,556	-	1,556	-
1904	617	3,197	1,129	110	1,129	110	40	-	40	911	-	695	-	3,075	19,079	-	1,556	-	1,556	-
1905	735	3,256	1,208	110	1,208	110	40	32	40	911	910	728	3,082	3,047	19,333	700	1,570	1,553	-	-
1906	531	3,006	1,306	110	1,306	110	40	-	40	911	-	868	-	3,047	19,068	-	1,570	-	1,570	-
1907	455	2,947	1,467	125	1,467	125	40	-	40	911	-	933	-	3,000	18,599	-	1,231	-	1,231	-
1908	451	2,917	1,564	160	1,564	160	40	-	40	1,096	-	863	-	2,968	18,336	-	1,231	-	1,231	-
1909	451	2,917	1,481	125	1,481	125	40	-	40	1,096	-	853	-	2,914	17,884	-	1,231	-	1,231	-
*1910	451	2,917	1,481	124	1,481	124	-	-	-	1,095	-	852	-	2,788	17,883	-	1,231	-	1,231	-
*1911	451	2,917	1,519	184	1,519	184	-	-	-	1,095	-	852	-	2,788	18,005	-	1,231	-	1,231	-
*1912	-	2,981	1,518	447	1,518	447	-	-	-	1,095	-	943	-	3,153	17,990	-	1,445	-	1,445	-

\* Assessed Rentals.

APPENDIX Q—continued.

RATEABLE VALUE OF SALMON FISHERIES, IN DISTRICTS WHERE BOARDS HAVE BEEN FORMED, FOR THE YEARS 1881 TO 1912 INCLUSIVE.

YEAR.	Deveron.		Don.		Doon.		Esk (North).		Esk (South).		Findhorn.		Forth.		Girvan.		Kyle of Sutherland.		Lochy.		Nairn.		
	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	
Average for 5 years, 1881 to 1885 ...	—	2,477	—	3,247	—	—	—	6,211	—	2,431	—	3,617	—	3,868	—	571	—	2,496	—	1,658	—	—	—
Average for 5 years, 1886 to 1890 ...	—	1,807	—	3,806	—	—	6,673	—	3,055	—	3,570	—	4,261	—	547	—	2,598	—	1,719	—	—	—	
1891 ...	2,047	—	3,646	—	—	6,476	3,012	—	3,541	—	—	3,890	—	—	542	—	2,640	—	—	1,895	—	1,543	
1892 ...	2,071	—	3,623	—	—	6,519	3,012	—	2,501	—	—	3,704	—	—	542	—	2,665	—	—	1,961	—	1,843	
1893 ...	2,073	—	3,964	—	—	6,809	3,012	—	3,491	—	—	3,765	—	—	542	—	2,613	—	—	1,961	—	1,843	
1894 ...	2,138	—	3,743	—	—	6,812	3,002	—	3,501	—	—	3,806	—	—	554	—	2,658	—	—	2,122	—	1,843	
1895 ...	2,383	2,142	3,583	3,711	—	6,812	3,149	3,037	3,501	3,507	3,786	—	3,766	544	—	2,611	37	2,012	2,012	2,122	2,012	1,341	
1896 ...	2,360	—	3,390	—	—	6,519	3,149	—	3,446	—	—	3,617	—	—	500	—	2,634	—	—	2,094	—	1,136	
1897 ...	2,469	—	3,383	—	—	6,540	3,149	—	3,436	—	—	3,616	—	—	524	—	2,731	—	—	2,115	—	1,136	
1898 ...	2,658	—	3,374	—	—	6,579	3,507	—	3,436	—	—	3,738	—	—	524	—	2,771	—	—	2,115	—	1,136	
1899 ...	2,979	—	3,430	—	—	6,523	3,424	—	3,436	—	—	3,792	—	—	524	—	2,838	—	—	2,020	—	1,136	
1900 ...	3,078	2,708	3,336	3,382	—	6,414	3,492	3,342	3,511	3,453	3,712	—	3,801	544	—	523	2,845	2,763	2,130	2,020	—	1,136	
1901 ...	3,186	—	3,691	—	473	6,510	3,492	—	3,527	—	—	3,925	—	—	514	—	2,890	—	—	2,992	—	1,136	
1902 ...	3,048	—	3,700	—	473	6,466	3,552	—	3,527	—	—	3,928	—	—	528	—	3,182	—	—	2,906	—	1,139	
1903 ...	3,105	—	3,646	—	486	6,494	3,552	—	3,587	—	—	3,731	—	—	553	—	2,523	—	—	2,900	—	1,139	
1904 ...	3,387	—	3,863	—	498	6,494	3,565	—	3,607	—	—	3,510	—	—	544	—	3,517	—	—	2,288	—	1,141	
1905 ...	3,369	3,219	4,153	3,810	485	6,489	3,590	3,553	3,661	3,581	3,721	—	3,513	549	—	537	3,515	3,115	2,231	2,413	—	1,219	
1906 ...	3,425	—	4,173	—	498	6,486	3,600	—	3,681	—	—	3,274	—	—	544	—	3,458	—	—	2,231	—	1,204	
1907 ...	3,381	—	3,946	—	513	6,474	3,600	—	3,661	—	—	3,491	—	—	534	—	3,333	—	—	2,280	—	1,205	
1908 ...	2,707	—	3,843	—	511	6,614	3,403	—	3,661	—	—	3,569	—	—	534	—	4,315	—	—	1,900	—	1,205	
1909 ...	3,193	—	3,503	—	508	7,621	3,697	—	3,697	—	—	3,684	—	—	534	—	4,524	—	—	2,238	—	1,205	
*1910 ...	3,193	—	3,503	—	508	7,620	3,424	—	3,424	—	—	3,647	—	—	533	—	4,524	—	—	2,130	—	1,205	
*1911 ...	3,340	—	3,381	—	499	7,617	3,464	—	3,677	—	—	3,756	—	—	533	—	4,510	—	—	2,130	—	1,205	
*1912 ...	—	—	3,381	—	499	7,597	3,601	—	—	—	—	3,756	—	—	543	—	4,511	—	—	2,269	—	1,205	

\* Assessed Rentals.



APPENDIX Q—continued.  
RATEABLE VALUE OF SALMON FISHERIES IN DISTRICTS WHERE BOARDS HAVE BEEN FORMED, FOR THE YEARS 1881 TO 1912 INCLUSIVE.

YEAR.	Ness.		Nith		Skye.		Spey.		Stinchar.		Tay.		Thurso.		Tweed.		Ugie.		Ythan.	
	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.	Annual value.	Average value for each period of 5 years.
Average for 5 years, 1881 to 1885 ...	£ 3,093	£ 520	£ —	£ —	£ —	£ —	£ —	£ 9,165	£ —	£ —	£ 19,596	£ —	£ —	£ 13,600	£ —	£ 335	£ 746	£ —	£ —	£ —
Average for 5 years, 1886 to 1890 ...	£ 3,203	£ 464	£ —	£ —	£ —	£ —	£ 10,207	£ —	£ —	£ —	£ 20,504	£ —	£ —	£ 14,158	£ —	£ 314	£ 834	£ —	£ —	£ —
1891	3,366	443	—	—	—	—	9,669	—	—	—	17,820	—	—	14,414	—	358	931	—	—	—
1892	3,254	423	—	—	—	—	9,687	—	—	—	17,227	—	—	14,746	—	358	1,004	—	—	—
1893	3,283	756	—	—	—	—	9,687	—	—	—	19,008	—	—	14,573	—	358	1,004	—	—	—
1894	3,468	775	—	—	—	—	9,316	—	—	—	21,763	—	—	15,583	—	356	1,004	—	—	—
1895	3,209	3,310	771	633	—	—	9,588	9,589	—	—	19,587	19,079	—	15,803	15,023	402	366	1,024	993	—
1896	3,085	815	—	—	—	—	8,671	—	—	—	17,091	—	—	15,084	—	503	1,024	—	—	—
1897	3,503	780	—	—	—	—	9,638	—	—	—	17,211	—	—	15,444	—	504	1,294	—	—	—
1898	3,567	781	—	—	—	—	10,634	—	—	—	17,905	—	—	15,239	—	508	1,299	—	—	—
1899	3,510	775	—	—	—	—	11,633	—	—	—	21,048	—	—	15,000	—	768	1,299	—	—	—
1900	3,647	3,482	676	765	424	—	10,122	10,119	200	—	22,482	19,147	—	15,032	15,159	845	625	1,317	1,246	—
1901	3,582	654	—	—	540	—	8,608	—	400	—	22,549	—	—	15,005	—	839	1,398	—	—	—
1902	3,636	545	—	—	540	—	8,052	—	400	—	22,608	—	—	15,005	—	839	1,398	—	—	—
1903	3,516	554	—	—	540	—	8,147	—	400	—	22,648	—	—	15,338	—	812	1,389	—	—	—
1904	3,404	584	—	—	540	—	7,397	—	400	—	22,902	—	—	15,389	—	779	1,359	—	—	—
1905	3,646	3,556	583	583	540	540	8,365	8,113	400	400	23,069	22,794	—	15,450	15,247	778	809	1,369	1,382	—
1906	3,503	619	—	—	540	—	8,741	—	400	—	22,676	—	—	15,732	—	779	1,354	—	—	—
1907	3,792	511	—	—	540	—	9,135	—	400	—	23,123	—	—	16,280	—	809	1,352	—	—	—
1908	3,533	507	—	—	540	—	9,244	—	400	—	23,489	—	—	16,093	—	757	1,352	—	—	—
1909	3,680	509	—	—	200	—	9,397	—	400	—	23,716	—	—	16,130	—	789	1,360	—	—	—
*1910	3,679	509	—	—	200	—	9,139	—	400	—	23,861	—	—	16,130	—	789	1,360	—	—	—
*1911	3,679	531	—	—	—	—	9,129	—	450	—	23,873	—	—	16,130	—	789	1,399	—	—	—
*1912	3,835	—	—	—	—	—	10,304	—	400	—	23,586	—	—	16,050	—	784	1,384	—	—	—

\* Assessed Rentals

## APPENDIX R.

## ANNUAL CLOSE TIME APPLICABLE TO THE SALMON RIVES IN SCOTLAND.

N.B.—Observe that, in the following List, the days fixing the commencement and termination of the Annual Close Time for Net-fishing and for Rod-fishing, respectively, are in all cases inclusive, as in the case of the Add, the first river in the List.

Name of River.	Annual Close Time for Net-fishing.	Annual Close Time for Rod-fishing.
Add, . . . . .	From Sept. 1 to Feb. 15, both days inclusive.	From Nov. 1 to Feb. 15, both days inclusive.
Aline, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Alness, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Annan, . . . . .	From Sept. 10 to Feb. 24.	From Nov. 16 to Feb. 24.
Applecross, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Arnisdale ( <i>Loch Hourn</i> ) . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Awe, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Aylort ( <i>Kinloch</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Ayr, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Baa and Goladoir, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Badachro and Kerry ( <i>Gairloch</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Balgay and Shieldag, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Beaully, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 16 to Feb. 10.
Berriedale, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Bervie, . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Bladenoch, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Broom, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Brora, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Carradale ( <i>in Cantyre</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Carron, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Clayburn, Finnisbay, Aven- nangeren, Strathgravat, North Lacastile, Scalladale and Mawrig ( <i>East Harris</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Clyde and Leven, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Conon, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Cree, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Creed or Stornoway, and Laxay ( <i>Island of Lews</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Creran ( <i>Loch Creran</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Croe and Shiel ( <i>Loch Duich</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Dee ( <i>Aberdeenshire</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Dee ( <i>Kirkcudbright</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Deveron, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Don, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Doon, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Drummachloy or Glenmore ( <i>Isle of Bute</i> ), . . . . .	From Sept. 1 to Feb. 15.	From Oct. 16 to Feb. 15.
Dunbeath, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 16 to Feb. 10.
Earn, . . . . .	From Aug. 21 to Feb. 4.	From Nov. 1 to Jan. 31.
Eekaig, . . . . .	From Sept. 1 to Feb. 15.	From Nov. 1 to Feb. 15.
Esk, North, . . . . .	From Sept. 1 to Feb. 15.	From Nov. 1 to Feb. 15.
Esk, South, . . . . .	From Sept. 1 to Feb. 15.	From Nov. 1 to Feb. 15.
Ewe, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.

Name of River.	Annual Close Time for Net-fishing.	Annual Close Time for Rod-fishing.
Fincastle, Meaveg, Ballanachist, South Lacastile, Borve, and Obb ( <i>West Harris</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Findhorn, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 11 to Feb. 10.
Fleet ( <i>Sutherlandshire</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Fleet ( <i>Kirkcudbrightshire</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Fors, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 24.
Forth, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 16 to Jan. 14.
Fyne, Shira, and Aray ( <i>Loch Fyne</i> ), . . . . .	From Sept. 1 to Feb. 15.	From Nov. 1 to Feb. 15.
Girvan, . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Glenelg, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Gour, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Greiss, Laxdale, or Thunga, Grudie or Dionard, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Gruinard and Little Gruinard, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Halladale, Strathy, Naver, and Borgie, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 1 to Jan. 11.
Helmsdale, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 1 to Jan. 10.
Hope and Polla or Strathbeg, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 1 to Jan. 11.
Howmore, . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Inchard, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Inner ( <i>in Jura</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Inver, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Iorsa ( <i>in Arran</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Irvine and Garnock, . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Kannaird, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Kilchoan or Inverie ( <i>Loch Nevis</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Kinloch ( <i>Kyle of Tongue</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Kirkaig, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Kishorn, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Kyle of Sutherland, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 16 to Feb. 10.
Laggan and Sorn ( <i>Island of Islay</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Laxford, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Leven, . . . . .	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Little Loch Broom, . . . . .	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Lochy, . . . . .	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Loch Duich, . . . . .	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Loch Luing, . . . . .	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Loch Roag, . . . . .	From Aug. 27 to Feb. 14.	From Nov. 1 to Feb. 10.
Lossie, . . . . .	From Aug. 27 to Feb. 14.	From Oct. 16 to Feb. 10.
Luce, . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 10.
Lussa ( <i>Island of Mull</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Moidart, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Morar, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Mullanageren, Horasary, and Lochnaciste ( <i>North Uist</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Nairn, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Naver and Borgie, <i>see</i> Halladale.		
Nell, Feochan, and Euchar, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Ness, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 16 to Feb. 1.
Nith, . . . . .	From Sept. 10 to Feb. 24.	From Dec. 1 to Feb. 24.
Orkney Islands ( <i>River from Loch of Stenness, &amp;c.</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.
Ormsary ( <i>Loch Killisport</i> ), Loch Head, and Stornoway ( <i>Mull of Cantire</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Pennygowan or Glenforsa, and Aros, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.



Name of River.	Annual Close Time for Net-fishing.	Annual Close Time for Rod-fishing.
Resort, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Ruel, . . . . .	From Sept. 1 to Feb. 15.	From Nov. 1 to Feb. 15.
Sanda, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Seaddle, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Shetland Islands ( <i>River of Sandwater, &amp;c.</i> ), . . . . .	From Sept. 10 to Feb. 24.	From Nov. 16 to Jan. 31.
Shiel ( <i>Loch Shiel</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Sligachan, Broadford, and Portree ( <i>Isle of Skye</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Snizort, Orley, Oze, and Drynoch ( <i>Isle of Skye</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Spey, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 16 to Feb. 10.
Stinchar, . . . . .	From Sept. 10 to Feb. 24.	From Nov. 15 to Feb. 24.
Tay (except Earn), . . . . .	From Aug. 21 to Feb. 4.	From Oct. 16 to Jan. 14.
Thurso, . . . . .	From Aug. 27 to Feb. 10.	From Oct. 6 to Jan. 10.
Torridon, Balgay, and Shieldag, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Tweed, . . . . .	From Sept. 15 to Feb. 14.	From Dec. 1 to Jan. 31.
Ugie, . . . . .	From Sept. 10 to Feb. 24.	From Nov. 16 to Feb. 24.
Ullapool ( <i>Loch Broom</i> ), . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Urr, . . . . .	From Sept. 10 to Feb. 24.	From Nov. 30 to Feb. 24.
Wick, . . . . .	From Aug. 27 to Feb. 10.	From Nov. 1 to Feb. 10.
Ythan, . . . . .	From Sept. 10 to Feb. 24.	From Nov. 1 to Feb. 24.

APPENDIX S.

LIST OF CHAIRMEN AND CLERKS OF SALMON FISHERY DISTRICT  
BOARDS IN SCOTLAND.

DISTRICT.	Name and Address of Chairman.	Name and Address of Clerk.
Alness, - -	Andrew Mackenzie, Esq., Dalmore House, Alness.	William J. Duncan, Solicitor, Dingwall.
Annan, - -	A. Johnstone Douglas, Esq., Comlongan Castle, Ruthwell.	John F. Cormack, Solicitor, Lockerbie.
Awe, - -	The Duke of Argyll, Inveraray Castle, Inveraray.	Alex. MacArthur, Solicitor, Oban.
Ayr, - -	Richard A. Oswald, Esq., of Auchincruive, Ayr.	F. H. Macpherson, 35 Sandgate Street, Ayr.
Balgay, - -	C. R. Manners, Esq., C.E., 12 Lombard Street, Inverness.	Duncan Shaw, W.S., 15 High Street, Inverness.
Bervie, - -	David Scott Porteous, Esq., of Lauriston, as mandatory of the Commissioners of Woods and Forests.	W. C. Walls, Solicitor, Montrose.
Broom, - -	W. Ewing-Gilmour, Esq., of Inverlael, per A. W. G. Aitken, Esq., S.S.C., Edinburgh.	W. R. T. Middleton, Solicitor, Dingwall.
Conon, - -	John Little Mounsey, Esq., W.S., 5 Thistle Street, Edinburgh, Commissioner for Col. J. A. F. H. Stewart Mackenzie of Seaforth.	W. R. T. Middleton, Solicitor, Dingwall.
Cree, - -	The Earl of Galloway, Cumloden, Newton-Stewart.	A. B. Matthews, Solicitor, Newton-Stewart.
Dee (Aberdeen),	The Lord Provost of Aberdeen.	Alex. Duffus, Advocate, Aberdeen.
Dee (Solway), -	J. Wilkinson, Esq., Mandatory for Capt. Hope, R.N., of St. Mary's Isle.	W. Nicholson, Jr., Solicitor, Kirkcudbright.
Deveron, - -	C. R. Sellar, Esq., Boddam, Peterhead.	James Morrison, Solicitor, Banff.
Don, - -	George Davidson, Esq., Wellwood, Aberdeen.	Alex. Duffus, Advocate, Aberdeen.
Doon, - -	Marquis of Ailsa, Culzean Castle, Maybole.	F. H. Macpherson, 35 Sandgate Street, Ayr.
Dunbeath, - -	The Commissioner of Fisheries, Office of Woods, etc.	D. W. Georgeson, Solicitor, Wick.
Esk (North), -	W. Douglas Johnston, Esq. (as Mandatory for Proprietors of Morphy Fishings), Montrose.	J. R. Findlay, Solicitor, Montrose.
Esk (South), -	William Douglas Johnston, Esq., Montrose.	D. S. Campbell, Solicitor, Montrose.
Fechoan, - -	The Marquis of Breadalbane, Taymouth Castle, Aberfeldy.	Alex. MacArthur, Solicitor, Oban.
Findhorn, - -	R. C. Munro Ferguson, Esq., of Novar, M.P., per J. J. Meiklejohn, Esq., factor.	William Grant, National Bank Buildings, Forres.
Forth, - -	Mandatory of Commissioners of Woods and Forests.	Henry Robb, 11 Barnton Street, Stirling.
Girvan, - -	John Campbell Kennedy, Esq., of Dunure.	T. Gerald Tait, Solicitor, Girvan.
Gruinard and Little Gruinard,	Alfred N. G. Aitken, Esq., S.S.C., Edinburgh, Factor and Commissioner for Hugh Mackenzie, Esq., of Dundonnell.	W. R. T. Middleton, Solicitor, Dingwall.
Kyle of Sutherland,	Sir Charles Lockhart Ross, Bart., of Balnagowan.	John M'Crone, Solicitor, Dornoch.
Little Broom, -	Alfred N. G. Aitken, Esq., S.S.C., Edinburgh, Factor and Commissioner for Hugh Mackenzie, Esp., of Dundonnell.	W. R. T. Middleton, Solicitor, Dingwall.

APPENDIX T. (*continued*)—LIST OF CHAIRMEN AND CLERKS OF SALMON FISHERY DISTRICT BOARDS IN SCOTLAND.

DISTRICT.	Name and Address of Chairman.	Name and Address of Clerk.
Lochy, - -	Thomas Allison, Factor and Mandatory for the Trustees of the late Lord Abinger, Inverlochy Castle, Fort-William.	N. B. Mackenzie, Solicitor, Fort-William.
Lossie, - -	The Duke of Richmond and Gordon, Gordon Castle, Fochabers, per George Muirhead, Esq., Commissioner.	T. R. Mackenzie, Solicitor, Elgin.
Nairn, - -	Brodie of Brodie, Brodie Castle, Forres.	H. T. Donaldson, Solicitor, Nairn.
Ness, - -	Captain E. C. Ellice of Glengarry, Fort-Augustus.	Anderson & Shaw, Solicitors, Inverness.
Nith, - -	John Henderson, Esq., Solicitor, Dumfries.	C. Steuart Phyn, Procurator-Fiscal, Dumfries.
Sligachan, Broadford, & Portree (Skye)	The Hon. Godfrey MacDonald, Portree.	Kenneth Macrae, Sheriff-Clerk, Portree.
Snizort, Orley, Oze, and Drynock (Skye), -	The Hon. Godfrey MacDonald, Portree.	Kenneth Macrae, Sheriff-Clerk, Portree.
Spey, - -	The Duke of Richmond and Gordon, Gordon Castle, Fochabers, per George Muirhead, Esq., Commissioner.	T. R. Mackenzie and T. Gibson Strachan, Solicitors, Elgin.
Stinchar, - -	The Earl of Stair, Lochinch, Wigtownshire.	Stair M'Harrie, Rephad, Stranraer.
Tay, - -	The Earl of Moray, Kinfauns Castle, Perth.	Condie, Mackenzie, & Co., Solicitors, Perth.
Thurso, - -	Peter Keith, Esq., Mandatory for Archibald H. M. Sinclair, Esq., of Ulbster.	David Keith-Murray, Solicitor, Thurso.
Torridon, - -	C. R. Manners, Esq., C.E., 12 Lombard Street, Inverness.	Duncan Shaw, W.S., 15 High Street, Inverness.
Tweed (Police Committee of the Commissioners), -	Sir Richard John Waldie-Griffith, Bart., of Hendersyde Park, Kelso.	David W. B. Tait, W.S., Kelso.
Ugie, - -	Lieut.-Col. Ferguson, of Pitfour, Mintlaw.	Robert Gray, Solicitor, Peterhead.
Wick, - -	Mrs. Duff Dunbar of Hempriggs, Aekergill Tower, Wick.	D. W. Georgeson, Solicitor, Wick.
Ythan, - -	Earl of Errol, Slains Castle, Aberdeenshire.	D. M. A. Chalmers, Advocate, Aberdeen.

*Note.*—In addition to the districts specified above, the Duke of Sutherland is sole proprietor of the districts of the following rivers. viz. :—Helmsdale, Brora, Fleet, and Laxford (under the charge of his factor, Mr. John Morrison, Dunrobin Office, Golspie); Kirkaig, Inver, and Inchard (under the charge of Alex. Taylor, Lochinver, Lairg); and the Halladale, Naver, Borgia, and Kinloch (under the charge of his factor, Mr. John Morrison, Tongue); W. E. Gilmour, Esq., of Rosehall, etc., per Mr. A. Gunn, Overseer, Durness, by Lairg, is proprietor of the rivers Dionard, Polla, Strathy, and Armadale, also in the north of Sutherland, and part owner, with the Duke of Sutherland, of the river Hope; Lord Lovat has practically sole right of fishing in the river Beaully (Mr. J. T. Garrioch, Beaully, factor); and the Countess of Cromartie is sole proprietrix of the district of the river Kannaird (under the charge of her factor, Mr. George Wetherspoon, Cromartie Estate Office, Kildary).

Fishery Board for Scotland,  
Edinburgh, April 1913



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THIRTY-FIRST  
ANNUAL REPORT

OF THE

FISHERY BOARD FOR SCOTLAND,

Being for the Year 1912.

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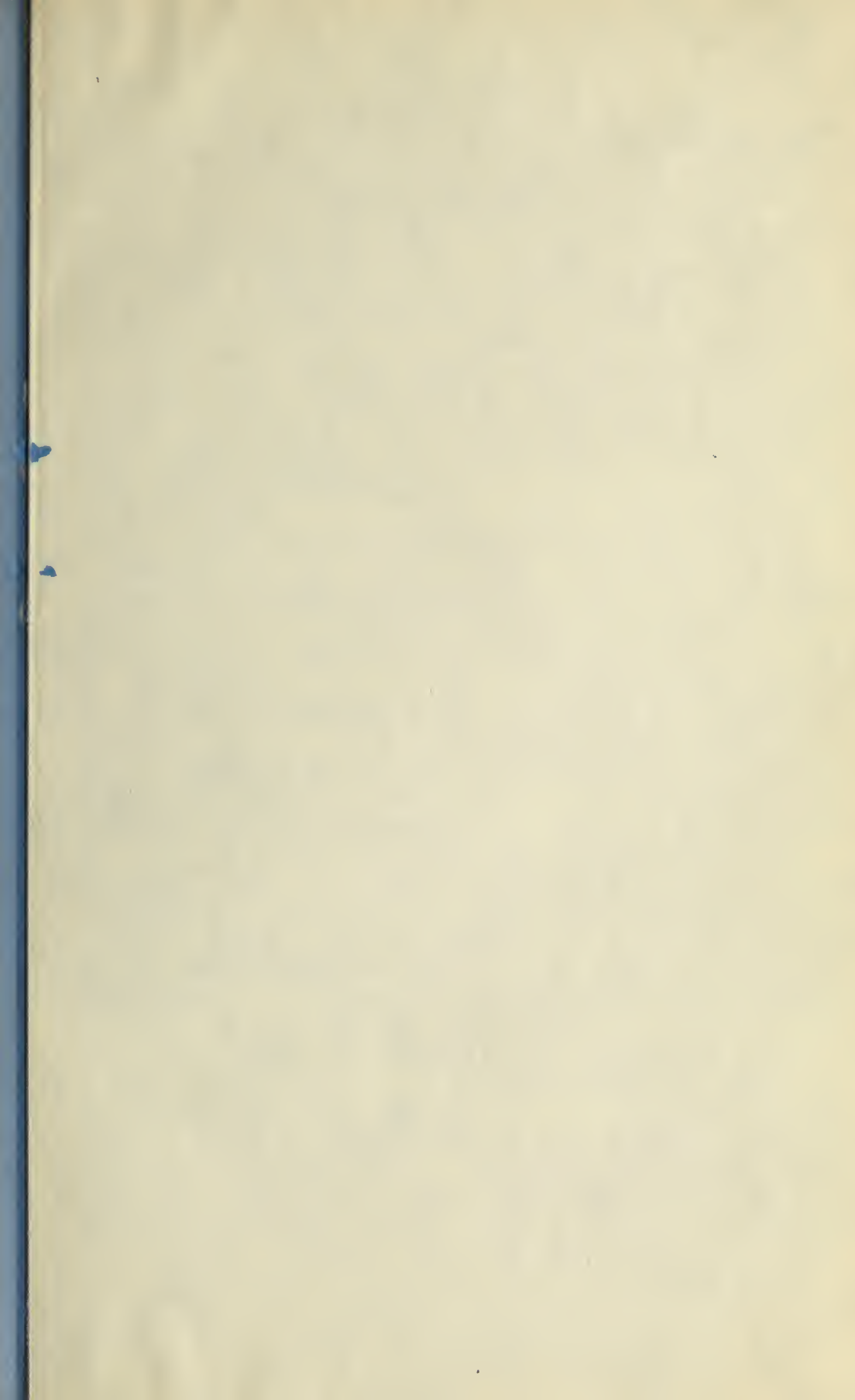
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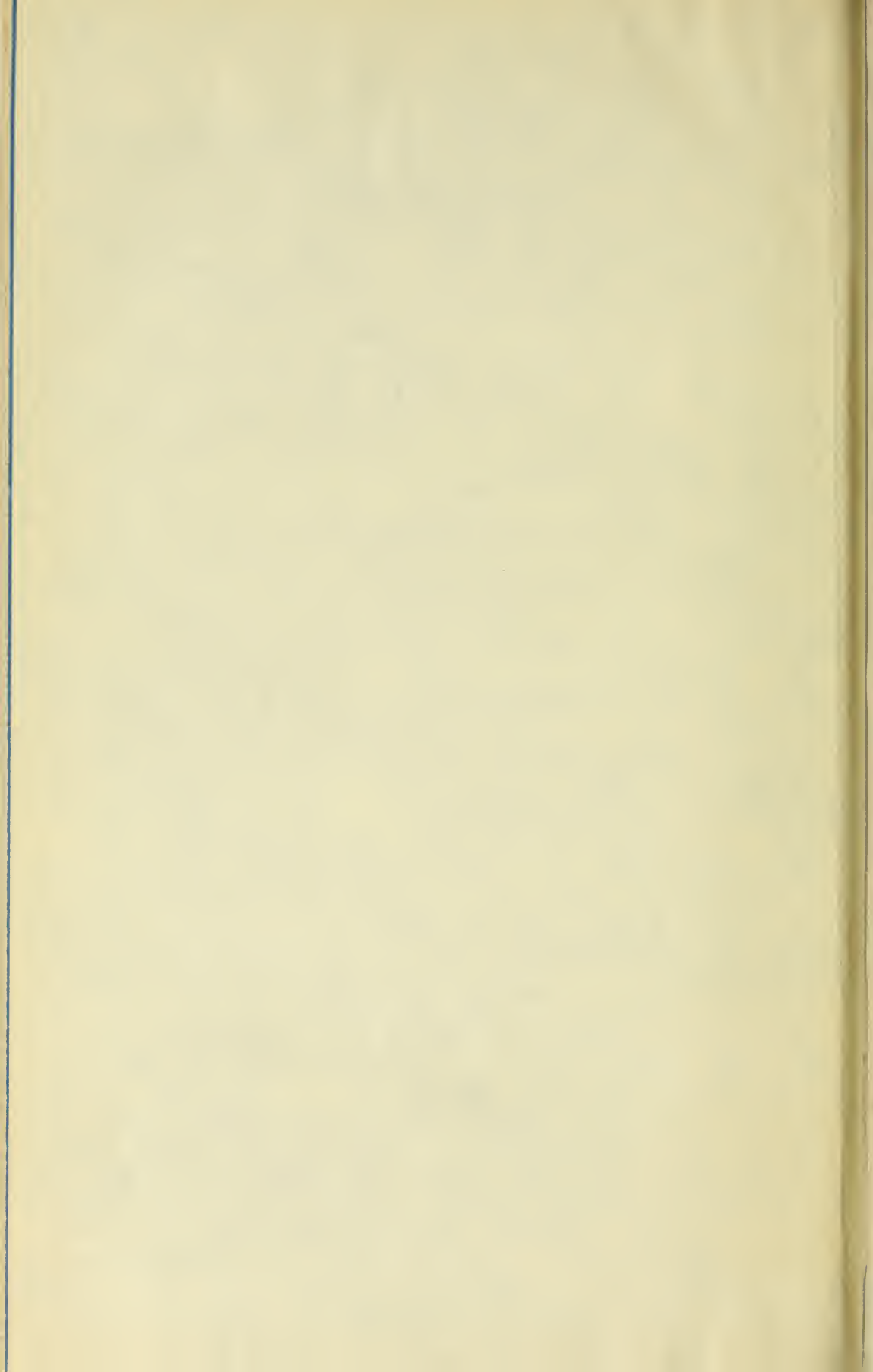
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