

Bequest of
S. Stillman Berry

# BRITISH ZOOLOGY. 

CLASS II. BIRDS.

DIV. II. WATER FOWL.


## L. ONDON.

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## BRITISH ZOOLOGY.

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D I V I S I O N II.

W A TER-FOWLS.

Vol. II.
Ff


## Div. II. WATER FOWLS.

## Sect. I. WITHCLOVEN FEET. II. WITHFINNED FEET. III. WITH WEBBED FEET.

BILL long, ftrong and pointed. NOSTRILS linear. TONGUE pointed.
TOES connected as far as the firf joint by a ftrong membrane.

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HERON.

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$$
\text { v. 296. tab. } 35 \text {. }
$$

Reyger. Frijch II. 199.
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## Female.

Ardea Pella five cinerea. Gef- Hegre. Cimbris Skid-Heire ner av. 211 .

Skredheire. Brunnich, 156.
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Danis et Norvegis Heyre v.

臬HIS bird is remarkably light in proporion to its bulk, fcarce weighing three pounds and a half: the length is three Fif feet
feet two inches; the breadth five feet four inches. The body is very fmall, and always lean; and the fkin fcarce thicker than what is called gold-beater's fkin. It muft be capable of bearing a long abitinence, as its food, which is finh and frogs, cannot be readily got at all times. It commits great devaitation in our ponds; but being unprovided with webs to fwim, nature has furnifhed it with very long legs to wade after its prey. It perches and builds in trees, and fometimes in high cliffs over the fea, commonly in company with many others, like rooks. At Crefle Hall near Gofberton in Lincolufhire I have counted above eighty nefts in one tree. It makes its neft of fticks, lines it with wool ; and lays five or fix large eggs of a pale green color. During incubation, the male paffes much of its time perched by the female. They defert their nefts during winter, excepting in February, when they refort to repair them. It was formerly in this country a bird of game, heron-hawking being fo favourite a diverfion of our anceftors, that laws were enacted for the prefervation of the fpecies, and the perfon who deftroyed their eggs was liable to a penalty of twenty fhillings, for each offence. Not to know the Hawk from the HeronSaw was an old proverb*, taken originally from this diverfion; but in courfe of time ferved to ex-

[^0]
## Class II. COMMON HERON.

prefs great ignorance in any fcience. This bird was formerly much efteemed as a food; made a favourite difh at great tables, and was valued at the fame rate as a Pheafant. It is faid to be very long lived; by Mr. Keyler's account it may exceed fixty years *: and by a recent inftance of one that was taken in Holland by a hawk belonging to the ftadtholder, its longevity is again confirmed, the bird having a filver plate faftened to one leg, with an infcription, importing it had been before ftruck by the elector of Cologne's hawks in 1735.

The male is a moft elegant bird: the weight about three pounds and a half, the length, three feet three; the breacth, five feet four; the bill fix inches long, very ftrong and pointed: the edges thin and rough; the color dufky above, yellow beneath; noftrils linear; the irides of a deep yellow; orbits and fpace between them and the bill covered with a bare greenifh fkin.

The forehead and crown white, the hind part of the head adorned with a loofe pendent creft of long black feathers waving with the wind; the upper part of the neck is of a pure white, and the coverts of the wings of a light grey; the back clad only with down, covered with the fcapulars; the fore part of the neck white fpotted with a double sow of black: the feathers are white, long, narrow,

[^1]unwebbed, falling loofe over the breat; the fcapulars of the fame texture, grey ftreaked with white.

The ridge of the wing white, primaries and baftard wing black; along the fides beneath the wings is a bed of black feathers, very long, foft and elegant; in old times ufed as egrets for the hair, or ornaments to the caps of Knights of the garter; the breaft, belly, and thighs white: the laft dafhed with yellow. The tail confifts of twelve fhort cinereous feathers: the legs are of a dirty green: the toes long, the claws fhort, the inner edge of the middle claw finely ferrated.
Female
The head of the female is grey: it-wants the long creft, having only a fhort plume of dufky feathers: the feathers above the breaft fhort; the fcapulars grey and webbed: the fides grey. This has hitherto been fuppofed to be a diftinict fpecies from the former; but later obfervations prove them to be the fame.
174. Bita Le Butor. Belon av. 192. Garza bionda, o dicolor d'oro.
teri. Brrind, Rordump. Gefner av. 215 .
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Bittour, Bittern, or Miredrum. Wil. orn. 282.
Raii Jyn. av. 100. Botaurus, le Butor. Brifion av. V. 444: tab. 37.

Zinan. 112. Scopoli, No. 125.

Rohrtrummel, Mofskuh. Kram. 348.
Rohrdommel. Frich, II. 205. Ardea ftellaris. Lin. Jyif. 239. Rordrum. Faun. Suec. 今p. 164.

Danis Rordrum. Brunnich, ${ }^{1} 55^{\circ}$ Br. Zool. 117. tab. A. I.

HE bittern is a very retired bird, concealing itfelf in the midtt of reeds and ruthes in

Class II. B I T T E R N.
marfhy places. It is with great difficulty provoked to flight, and when on wing has fo dull and flagging a pace, as to acquire among the Greeks the title of $0, \mathcal{U}^{-}$* or the lazy. It has two kinds of notes; the one croaking, when it is difturbed: the other bellowing, which it commences in the fpring and ends in autumn. Mr. Willugbby fays, that in the latter feafon it foars into the air with a fpiral afcent to a great height, making at the fame time a fingular noife. From the firlt obfervation, we believe this to be the fpecies of heron that Virgil alludes to among the birds that forbode a tempeft,

> In ficco ludunt fulicæ, notafque paludes
> Deferit, atque altam fupra volat Ardea nubem $\dagger$.

For the antients mention three kinds $\ddagger$; the Leucon, or white heron; the Pellos, fuppofed to be the common fort; and the Aferias, or bittern; which feems to have acquired that name from this circumftance of its afpiring flight, as it were attempting, at certain feafons, the very ftars; though at other times its motion was fo dull, as to merit the epithet of lazy.

Some commentators have fuppofed this to have been the Taurus of Pliny; but as he has exprefsly declared that to be a fmall bird, remarkable for

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* Arif. bif. an. 1056.
+ Georg. I. 363.
\(\ddagger\) Arijt, hif. an, 1006. Plin. lib., x. c. 60.
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## B I T T E R N. Class II.

imitating the lowing of oxen, we muft deny the explanation; and wait for the difcovery of the Roman naturalift's animal from fome of the literati of Arles, in which neighbourhood Pliny fays the Descrip. bird was found *. In fize it is inferior to the heron: the bill is weaker, and only four inches long : the upper mandible a little arched; the edges of the lower jagged: the rictus or gape is fo wide, that the eyes feem placed in the bill : the irides are next the pupil yellow; above the yellow incline to hazel: the ears are large and open. The crown of the head is black; the feathers on the hind part form a fort of fhort pendent creft : at each corner of the mouth is a black fpot: the plumage of this bird is of very pale dull yellow, fpotted, barred, or ftriped with black : the baftard wing, the greater coverts of the wings, and the quil-feathers are of a bright ferruginous color, regularly marked with black bars: the lower belly is of a whitifh yellow : the tail is very fhort, and confifts of only ten feathers. The feathers on the breaft are very long, and hang loofe: the legs are of a pale green. All the claws are long and flender: the inner fide of the middle claw finely ferrated to hold its prey the better; its hind claw is remarkably long, and being a fuppofed prefervative for the teeth, is fometimes fet in filver and ufed as a tooth-pick. Befides this common fpecies, Mr. Edwards mentions a

[^2]
fmall one of the fize of a lapwing, fhot near Sbretefoury. He adds no more than that the crown of the head was black : as this anfwers the defeription of a kind frequent in Sreitzerland and $A u$ ftria*, we imagine it to be a ftrayed bird from thofe parts.

It builds its neft with the leaves of water plants on fome dry clump among the reeds, and lays five or fix eggs, of a cinereous green color. This bird and the heron are very apt to ftrike at the fowler's eyes, when only maimed. The food of the bittern is chiefly frogs; not that it rejects fifh, for fmall trouts have been met with in their ftomachs. In the reign of Henry VIII. it was held in much efteem at our tables; and valued at one fhilling. Its flefh has much the flavour of a hare; and nothing of the filhinefs of that of the heron.

Le Heron blanc. Belon av. Ardea candida, le Heron 175. White. 19I.
blanc. Brifon av. V. 428.
Ardea alba. Gefner av. 213. Groffer weiffer Rager. Kran.

Turner.
Wil. orn. 279.
Raii Syn. av. 99.
346. Scopoli, No. 126.

Ardea alba. Lin. fy.t. 239. Faun. Suec. Jp. 166. Br. Zool. 117.

T HIS bird has not fallen within our obfervation; therefore we muft give Mr . Willugbby's

[^3]account account of it. The length to the end of the feet is fifty-three inches and a half, to that of the tail only forty; the breadth fixty inches; the weight forty ounces.

The bill is yellowifh; the naked fkin between that and the eyes green; the edges of the eye-lids, and the irides, are of a pale yellow; the legs are black; the inner edge of the middle claw ferrated : the whole plumage is of a fnowy whitenefs. This bird is very common in many parts of Europe; Turner fays, that in his time this fpecies bred (though rarely) in the fame places with the common fort: but we believe it to be feldom found with us at prefent, any more than the fmall fpecies of crefted white heron mentioned by Leland, under the name of Egritte, in one of the bills of fare in the magnificent feafts of our anceftors *.

[^4]

BILL long, flender, incurvated. NOSTRILS linear, placed near the bafe. TONGUE fhort, fharp pointed. TOES connected as far as the firft joint by a itrong membrane.

Le Corlieu. Belon avv. 204. Goifer, Brach-fcknepf. Kram. Arquata, five numenius. Gefner av. 221.
Arcafe Torquato. Aldr. av. III. 169.

Wil. orn. 294. Danis Heel-fpove. Regn. SpaRaii fyn. av. 103. $\quad$ aer. Regn. Spove. Prunnich, Le Courly. Brifon av. V. 311.
350. Frijch, II. 229.
176. CurLEW. Scolopar arquata. Lin. fyt. 242.

Faun. Suec. 有. 168. $15^{8 .}$
Br, Zool. 118.

THESE birds frequent our fea coafts and marfhes in the winter time in large flocks, walking on the open fands; feeding on fhells, frogs, crabs, and other marine infects: in fummer they retire to the mountanous and unfrequented parts of the country, where they pair and breed. Their eggs are of a pale olive color, marked with irregular but diftinct fpots of pale brown. Their flefh is very rank and fifhy, notwithftanding an old Englifh proverb in its favour.

Curlews differ much in weight and fize; fome Descrip. weighing thirty-feven ounces, others not twentytwo: the length of the largeft to the tip of the
tail twenty-five inches; the breadth three feet five inches; the bill is feven inches long: the head, neck, and coverts of the wings are of a pale brown; the middle of each feather black; the breaft and belly white, marked with narrow oblong black lines: the back is white', fpotted with a few black ftrokes: the quil-feathers are black, but the inner webs fpotted with white: the tail white, tinged with red and beautifully barred with black; the legs are long, ftrong, and of a bluifh grey color: the bottoms of the toes flat and broad, to enable it to walk on the foft mud, in fearch of food.
177. Whim-
brel.

Phæopus altera, vel arquata minor. Gefner av. 499. Tarangolo, Girardello. Aldr. ar. III. 180.
Wil. orn. 294.
Raii fyn. av. 103. Edw. av. 307. Scolopax Phæopus. Lin. Syf. 243. Scopoli, No. 132. Windfpole, Spof. Faun. Suec. Br. Zool. ilg. sp. 169.

THE whimbrel is much lefs frequent on our fhores than the curlew; but its haunts, food, and general appearance are much the fame. It is obferved to vifit the neighbourhood of Spalding (where it is called the Curlew knot) in vaft flocks

WHIMBREL.

flocks in April, but continues there no longer than May; nor is it feen there any other time of year: it-feems at that feafon to be on its paffage to its breeding place, which I fufpect to be among the Highlands of Scotland.

The fpecific difference is the fize; this never exceeding the weight of twelve ounces. The bill is Descrip. two inches three quarters long; dufky above, red below: the feathers on the head and neck are brown tinged with red, marked in the middle with an oblong black fpot: the cheeks of a paler color: the upper part of the back, the coverts of the wings, the fcapulars, and the fartheft quil-feathers, are of the fame color with the neck, but the black fpots fpread out tranfverfely on each web: the quil-feathers dunky; their fhafts white; and their exterior webs marked with large femicircular white fpots. The breaft, belly, and lower part of the back are white: the coverts of the tail, and the tail itfelf, are of a very pale whitih brown, crofled with black bars. The legs and feet are of a dull green, and formed like thofe of the curlew.

I received one from Invercauld, fhot on the Grampian Hills, whofe length was fixteen inches; the bill two: the head round, black on the top, divided length-ways by a white line: chin white : cheeks, neck, breaft, and upper part of the belly whitifh brown, marked with ftreaks of black pointing down, with narrow ftreaks on the neck; broad on the belly: lower belly and vent white: back and. and coverts of the wings dufky : the fides of each feather fpotted with reddifh white: lower part of the back white: rump white barred with black: tail barred with dufky and white: quil-feathers black, with large white fpots on the inner webs; the fecondaries on both webs: legs black.


BILL، long, flender, weak and ftrait. NOSTRILS linear, lodged in a furrow. TONGUE pointed, nender. TOES divided, or very nightly connected, back toe very fmall.

La Beccaffe. Belon avv. 272. Rufticola, feu Perdix ruttica major (Groffer fchnepff). Gefiner av. 501.
Aldr. av. III. 182.
Wil. orn. 289.
Raii Syn. av. 104.
La Beccafie. Brifon av. V. 292.

Beccaccia, Acceggia. Zinan. 101.

Schniffa. Scopoli, No. 134.

Wald fchnepf. Kram. 35 I. Frich, II. 226. foem. 227. Scolopax rufticola. Lin. Syt. 243.

Morkulla. Fain. Suec. fp. 170.

Norvegis Blom-Rokke, Rutte, quibufdam Krog-quift. Danis Holt Sneppe. Brunnich, 164. Br. Zool. 119.
Fauna Scotica. No. 142.

THESE birds during fummer are inhabitants of the Alps*, of Norway, Sweeden, Polif/ Prufia, the march of Brandenburg $\dagger$, and the northein parts of Europe: they all retire from thofe countries the beginning of winter, as foon as the frofts commence; which force them into milder climates, where the ground is open, and adapted to their manner of feeding. The time of their

$$
\begin{aligned}
& \text { WVil. orn. } 290 . \\
& \text { + Frijch, II. } 226 .
\end{aligned}
$$

appearance and difappearance in Sweden; coincides moft exactly with that of their arrival in, and their retreat from Great Britain *. They live on worms and infects, which they fearch for with their long bills in foft ground and moift woods. Woodcocks generally arrive here in flocks, taking advantage of the night, or a mift : they foon feparate; but before they return to their native haunts, pair. They feed and fly by night; beginning their fight in the evening, and return the fame way, or through the fame glades to their day retreat. They leave England the latter end of February, or beginning of March; not but they have been known to continue here accidentally. In Cafe-wood, about two miles from Tunbridge, a few breed almoft annually: the young having been fhot there the beginning of Ausuft, and were as healthy and vigorous as they are with us in the winter, but not fo well tafted: a female with egg was thot in that neighbourhood in April; the egg

* M. de Gcer's and Dr. Wallerius's letters to myfelf. M. de Geer expreffes himfelf thus; La Becafe (Scolopax rufticola) part d'ici vers l'automne, Je ne fcais pas at jufte dans quel mois. On la trouve ici aflez en abondance dans l'eté. Elle a coutume au Soleil coucbant de faire fa volèe en cercle ou toujours en rond en l'air revenant toujours dans le meme endroit a plufieurs reprijes, et c'eft alors qu'on peut la tiver a coup de fugl. En biver on ne voit aucune, elle parient alors toutes.
M. Wallerius gave me this account of them. Scolopaces rufficola penes nos nidificant. Sed autumneli tempore abeunt, ac vernali redeunt. markably tame during incubation; a perfon who difcovered one on its neft, has often ftood over, and even ftroaked it: notwithftanding which it hatched the young; and in due time difappeared with them.

Thefe birds appear in Scotland firft on the eaftern coafts, and make their progrefs from Eaft to Weft. They do not arrive in Breadalbane, a central part of the kingdom tili the beginning or middle of November: and the coafts of Netber Lorn, or of Rolffire, till December or Fanuary: are very rare in the more remote Hebrides, or in the Orknies. A few ftragglers now and then arrive there. They are equally farce in Catbness. I do not recollect that any have been difcovered to have bred in North Britain.

Their autumnal and vernal appearances on the coaft of Suffolk have been moft accurately marked by Sir Jobn Cullum, Bart. who favoured me with the following curious account.

From fome old and experienced fportfmen, who live on the coaft, I collected the following particulars. They come over fparingly in the firft week of Ociober, the greater numbers not arriving till the months of November and December, and always after fun-fet. It is the wind and not the moon that determines the time of their arrival: and it is probable that this fhould be the cafe, as they come hither in queft of food, which fails then in the

Voz. II.
Gg
places
places they leave. If the wind has favoured their flight, their ftay on the coaft, where they drop, is very fhort, if any: but if they have been forced to ftruggle with an adverfe gale (fuch as a fhip can hardly make way with) they take a day's reft, to recover their fatigue : and fo greatly has their ftrength been exhaufted, that they have been taken by hand in Soutbwald ftreets. They arrive not gregarious, but feparate and difperfed. When the Red wing appears on the coaft in autumn, it is certain the Woodcocks are at hand; when they Royfon Crow, they are come. Between the twelfth and twenty-fifth of March they flock towards the coaft to be ready for their departure: the firft law of nature bringing them to us, in autumn; the fecond carrying them from us in fpring. If the wind be propitious, they are gone immediately; but if contrary, they are detained in the neighboring woods, or among the ling and furze on the coaft. It is in this crifis that the fportfman finds extraordinary diverfion: the whole country around echoes with the difcharge of guns; even feventeen brace have been killed by one perfon in a day: but if they are kept any time on the dry heaths, they become fo lean, that they are a prey hardly worth purfuing, at left eating. The inftant a fair wind fprings up, they feize the opportunity, and where the fportiman has feen hundreds one day, he will not find a fingle bird the next. As this extraordinary diverfion depends on the winds, it
muft neceffarily be precarious; and it accordingly fometimes happens, that the fportfmen on the coaft, for fome years together know not precifely the time of the Woodcocks departure. They have the fame harbingers (the Red wings) in fpring, as in autumn.

In the fame manner we know they quit France, Germany and Italy; making the northern and cold fituations their general fummer rendezvous. They vifit Burgundy the latter end of October, but continue there only four or five weeks; it being a dry country they are forced away for want of furtenance by the firft frofts. In the winter they are found in vaft plenty as far fouth as Smyrna and Aleppo*, and in the fame feafon in Barbaryt, where the Africans call them, the afs of the partridge: and we have been told, that fome have appeared as far fouth as Ægypt, which are the remoteft migrations we can trace them to on that fide the eaftern world; on the other fide, they are found very common in Fapan $\ddagger$. The birds that refort into the countries of the Levant, probably come from the defarts of Siberia or Tartary $\S$, or the cold mountains of Armenia.

Our fpecies of woodcock is unknown in North

> * Rufel's biff. Aleppo. 64. + Shawn's travels, 253.
> I Kamper's hif. Yopara. I. 129.
> § Bell's travels, I. 198.

Anerica; but a kind is found there that has the general appearance of it; but is fcarce half the fize, and wants the bars on the breaft and belly.

Descrif.

The weight of the woodcock is ufually about twelve ounces: the length near fourteen inches: the breadth twenty-fix: the bill is three inches long, dufky towards the end, reddifh at the bafe: tongue flender, long, fharp, and hard at the point: the eyes large, and placed near the top of the head, that they may not be injured when the bird thrufts its bill into the ground: from the bill to the eyes is a black line : the forehead is a reddifh afh-color: the crown of the head, the hind part of the neck, the back, the coverts of the wings, and the fcapulars are prettily barred with a ferruginous red, black and grey; but on the head the black predominates: the quil-feathers are dufky, indented with red marks.

The chin is of a pale yellow: the whole underfide of the body is of a dirty white, marked with numerous tranfverfe lines of a dufky color. The tail confilts of twelve feathers, dufky, or black on the one web, and marked with red on the other: the tips above are afh-colored, below white; which, when fhooting on the ground was in vogue, was the fign the fowler difcovered the birds by. The legs and toes are livid; the latter divided almoft to their very origin, having only a very fmall web between the middle and interior toes; as are thofe of the two fpecies of fnipes found in England.

Godwit, Yarwhelp, or Yar- Limofa grifea major. La 179. God-
wip. Wil. orn. 290.
Raii Syn. av. 105.
Scolopax ægocephala. Lin. fyjt. 246.
grande.
Barge grife. Brifon aw. V. 272. Tab. 24. fig. 2. Br. Zool. 120. Tab.

THIS fpecies weighs twelve ounces and a half; the length is fixteen inches; the breadth twenty-feven; the bill is four inches long, turns up a little, black at the end, the reft a pale purple: from the bill to the eye is a broad white ftroke: the feathers of the head, neck, and back, are of a light reddifh brown, marked in the middle with a dufky fpot: the belly and vent feathers white : the tail regularly barred with black and white.

The fix firf quil-feathers are black; their interior edges of a reddifh brown: the legs in fome are dufky, in others of a greyifh blue; which perhaps may be owing to different ages: the exterior toe is connected as far as the firft joint of the middle toe, with a frong ferrated membrane. The male is diftinguifhed from the female by fome black lines on the breait and throat; which in the female are wanting.

Thefe birds are taken in the fens, in the fame feafon, and in the fame manner with the ruffs and reeves, and when fattened are efteemed a great delicacy, and fell for half a crown, or five fhillings
Gg3 a piece,

Descrip.


## G O D W I T. Class II.

a piece. A ftale of the fame fpecies is placed in the net. They appear in fmall flocks on our coaft in September, and continue with us the whole, winter; they walk on the open fands like the curlew; and feed on infects.
M. Brifon has figured this bird very accurately, but has given it the fyrionym of our greenfoanks. Turner fufpects this bird to have been the attagen or attagas of the antients. Arifophares names it in an addrefs to the birds that inhabit the fens; therefore fome commentators conclude it to be a water-fowl; though in a line or two after he fpeaks of thofe that frequent the beautiful meadows of Maratbon. He then defcribes the bird in very ftriking terms, under the title of the attagas, the bird with painted wings; and in another place he ftyles it the $\int p o t t e d$ attagas*. This alone would be infufficient to prove what fpecies the poet intended; we muft therefore have recourfe to Atbenous, who is particular in his defcription of the attagas, and evinces it to be of the partridge tribe.

He fays it is lefs than that bird; that the back is fpotted with different colors, fome of a pot color, but more red; that by reafon of the fhortnefs of the wings and heavinefs of the body, it is taken

$$
\begin{aligned}
& \alpha \tau \tau \alpha \gamma \tilde{\alpha}_{5} .
\end{aligned}
$$

eafily by the fowlers. That it rolls in the duft, brings many young, and feeds on feeds.

We are forry to own our fmall acquaintance with the zoology of Atica, confidering the various opportunities our countrymen have had of informing themfelves of it. We therefore cannot pronounce, that the attagas fill exifts on the plains of Marathon; but we difcover it in Samos, an ifland of Tonia, a country celebrated by the antients for producing the fineft kinds :

> Inter fapores fertur alitum primus Ionicarum guftus attagenarum,

Is the opinion of Martial*; and Horace $\dagger$, and Pliny $\ddagger$, both fpeak of it with applaule. Tournefort § has given us the figure of the bird itfelf, which he found in the marthes of Samos, whofe painted and fpotted plumage exactly anfwers the defcriptions of Ariftophanes and Atbencus. It is of the partridge genus, and known to the Italians by the name of Francolino. Thofe who wifh to fee it in its proper colors, and to be fatisijed how well they agree with the defcriptions of the antients, need only confult the 246 th plate of the works of our ingenious friend the late Mr. Edrwards.

> * Epig. Lib. XIII. Ep. 61.
> + Epod. II.
> $\ddagger$ Lib. X. c. 48.
> § Voy. Vol. I. $311.4^{t o .}$ ed.

Gg 4
THIS
180. Cine- HIS fpecies was fhot near Spalding, and the defcription communicated to me by the Rev. Doctor Buckworth.

The bill was two inches and a half long. The head, neck, and back variegated with ath-color and white: the tail fightly barred with cinereous. The throat and breaft white: the laft marked with a few afh-colored fpots. The legs long, flender, and alh-colored.

This was about the fize of my Green-floanks: approaches it nearly in colors: but the bill was fo much thicker, as to form a fpecific diftinction.

1SI. Red. Scolopax Lapponica. Lin. fŷt. Faun. Suec. /p. 174 . 246. Br. Zool. add. plates.

Descrip. HE red godwit is fuperior in fize to the common kind : the bill is three inches threequarters long; not quite ftrait, but a little reflected upwards; the lower half black, the upper yellow: the head, neck, breait, fides, fcapulars, and upper part of the back, are of a bright ferruginous color: the head marked with oblong dufky lines: the neck is plain : the breaft, fides, fcapulars, and back varied with tranfverfe black bars,

## CENEREOUS GODWIT.



## RED GOIWWIT.


and the edges of the feathers with a pale cinereous brown : the middle of the belly is white, marked fparingly with fimilar fpots.

The leffer coverts of the wings are of a light brown: the greater tipt with white: the fhafts and lower interior webs of the greater quil-feathers are white : the exterior webs and upper part of the interior black: the upper half of the fecondary feathers are of the fame color; the lower half white : the coverts, and the lower part of the feathers of the tail are white; the upper part black; the white gradually leffening from the ourmoft feathers on each fide: the legs are black, and four inches long: and the thighs above the knees are naked for the fpace of an inch and three-quarters.

Thefe birds vary in their colors, fome that we have feen being very flightly marked with red, or only marbled with it on the breaft: but the reflected form of the bill is ever fufficient to determine the fpecies. This is not a very common fpecies in England; we have known it to have been fhot near Hull; and have once met with it in a poulterer's fhop in London. Mr. Edwards has figured a bird from Hudjon's Bay, that feems related to this ; but the difference in the colors of the tail, forbids our placing it among the fynonyms. And Linnous omitting a defcription of that part, in his Fauna Suecica, obliges us to queftion whether it be the fame with the above.

182. Lesser. La Barge. Belon av. 205. The fecond fort of Godwit, the Totanus of Aldrovand; called at Venice, Vetola. Wil. orn. 293.<br>Fedoa noftra fecunda, the Stone<br>Plover Raii fyn. av. 105. Limofa, la Barge. Brifonav. V. 262. Br. Zool. 120.

Descrip.

MR. Ray (for we are not acquainted with this fpecies) defcribes it thus. Its weight is nine ounces; the length to the tail feventeen inches; to the toes twenty-one; its breadth twenty-eight: the bill like that of the former: the chin white, tinged with red: the neck afh-colored; the head of a deep afh-color, whitifh about the eye; the back of a uniform brownnefs, not fpotted like that of the preceding : the rump encompaffed with a white ring : the two middle feathers of the tail black: the outmoft, efpecially on the outfide web, white almoft to the tips ; in the reft the white part grew lefs and lefs to the middlemoft.

Befides thefe, Mr. Willugbby mentions a third fpecies, ealled in Cornwal the Stone Curlew; but defcribes it no farther than faying it has a fhorter and flenderer bill than the preceding.

Limofa, et glottis. Gefner av. Scolopax glottis. Lin. fyf. 245. Glut. Faun. Suec. ${ }^{P}$. 171. Pivier Maggiore. Zinan. 102. Norvegis Hoeft Fugl. 167. Brunnich.
Br. Zool. 12 i.
Tfchoket. Scopoli, No. $137^{\circ}$

THESE birds are not fo common as the former : appearing on our coafts and wet grounds in the winter time in fmall flocks. The length to the end of the tail is fourteen inches, to that of the toes twenty; its breadth twenty-five. The bill is two inches and a half long: the upper mandible black, ftrait, and very flender; the lower reflects a little upwards: the head and upper part of the neck are afh-colored, marked with fmall dufky lines pointing down: over each eye paffes a white line: the coverts of the wings, the fcapulars, and upper part of the back are of a brownifh afh-color: the quil-feathers dukky, but the inner webs fpeckled with white: the breaft, belly, thighs, and lower part of the back are white: the tail white, marked with undulated dufky bars: the inner coverts of the wings finely croffed with double and treble rows of a dufky color.

It is a bird of an elegant fhape, and fmall weight in proportion to its dimenfions, weighing only fix ounces.

The legs are very long and flender, bare above two inches higher than the knees. The exterior toe is united to the middle toe, as far as the fecond joint, by a ftrong membrane which borders their fides to the very end.

Thefe birds are the Cbevaliers aux pieds verds of the French; as the fpotted redfhanks are the Cberoliers aux pieds rouges.
184. RED Siank.

Gallinula crythropus. Gefrer Sc. Totanus. Faun. Suec. $\sqrt{\text { P }}$. av. 504. 167.

Totanus Aldr. av. IIt. 171. Rothfufsler Kram. 353.
Redfhank, or Pool-fnipe. Kleiner grau-und-weifbunter Wil. orn. 299. Sandlœuffer ? Frijch, II. Raii Jyn. av. 107.
Totanus, le Chevalier. Brifon Hæmantopus, magnitudine av. V.ı88. Tab.17.fg. I. inter Vanellum et GalliScolopax Calidris. Lin. Jyf. 245 .
naginem minorem media.
Raj's itin. 247. Br. Zool. 124.

THIS fpecies is found on moft of our fhores: in the winter time it conceals itfelf in the gutters; and is generally found fingle, or at moft in pair.
Descrip.
It weighs five ounces and a half: the length is twelve inches: the breadth twenty-one: the bill near two inches long, red at the bafe, black towards the point. The head, hind part of the neck, and fcapulars, are of a dufky afh-color, obfcurely fpotted with black: the back is white, fprinkled
with black fpots: the tail elegantly barred with black and white: the cheeks, under fide of the neck, and upper part of the breaft are white, ftreaked downward with dufky lines : the belly white: the exterior webs of the quil-feathers are dufky : the legs long, and of a fine bright orange color: the outmoft toe connected to the middle toe by a fmall membrane; the inmoof by another ftill fmaller.

It breeds in the fens, and marhes; and flies round iss neft when difturbed, making a noife like a lapwing. It lays four eggs, whitifh tinged with olive, marked with irregular fpots of black chiefly on the thicker end.

IDISCOVERED this in the collection of the Rev. Mr. Green, fnot near Cambridge.
It is larger than the common redfhank. The head, upper part of the neck, and the back are of a cinereous brown: the leffer coverts of the wings brown edged with dull white, and barred with black : the primaries dunky, whitifh on their inner fides: fecondaries barred with duiky and white: under fide of neck and brealt of a dirty white: belly and vent white: tail barred with cinereous and black: legs of an orange red.
185. CamBRIDGE。
186.Spotted Le chevalier rouge. Belon av. The other Totano. Wil. orn. Redshank. 207.

Aldr. av. III. 171.

Le ${ }^{299}$ Chevalier rouge. Brifon av. V. 192.

Descrip.

THIS fpecies we found in the collection of Taylor White, Efq. In fize it is equal to the greenfhank: the head is of a pale afh-color, marked with oblong ftreaks of black: the back dufky, varied with triangular fpots of white : the coverts of the wings afh-colored, fpotted in the fame manmanner : the quil-feathers dufky ; breaft, belly, and and thighs white, the firft thinly fpotted with black : the middle feathers of the tail are afh-colored; the fide feathers are whitifh, barred with black: the legs very long, and of a bright red.
187. Сом- La Becaffine ou Becaffeau. Scolopax gallinago. Lin. fyf. mon Sn. Belon av. 215 . Gallinago, feu rufticola minor. Gefner av. 503.
Aldr. av. III. 184.
The Snipe, or Snite. Wil. Iflandis Myr Snippe. Norvegis orn. 290.
Raii fyn. av. 105.
La Beccaffine. Brifon av. V. 298. Tab. 26. fig. 1.

Pizzarda, Pizzardella. Zinan. 101. 244 :
Horfg jok. Faun. Sulcc. Sp. 173. Capella cœleftis. Klein av. 100. Trold Ruke. Cimbris quibufd. Hoffegioeg. Danis Dobbelt Sneppe, Steen Sneppe. Br. 160.

Moofs fchnepf. Kram. 352. Frich, II. 229.

N the winter time fnipes are very frequent in all our mariny and wet grounds, where they lie

## LAVLII.



## Class II. COMMON SNIPE.

concealed in the rufhes, $\Xi c$. In the fummer they difperfe to different parts, and are found in the midtt of our higheft mountains, as well as our low moors : their neft is made of dried grafs; they lay four eggs of a dirty olive color, marked with dufky fpots; their young are fo often found in England, that we doubt whether they ever entirely leave this ifland. When they are difturbed much, particularly in the breeding feafon, they foar to a vaft height, making a fingular bleating noife; and when they defcend, dart down with vaft rapidity: it is alfo amufing to obferve the cock (while his mate fits on her eggs) poife himfelf on his wings, making fometimes a whiftling and fometimes a drumming noife. Their food is the fame with that of the woodcock; their flight very irregular and fwift, and attended with a thrill fcream. They are moft univerfal birds, found in every quarter of the globe, and in all climates.

This fpecies weighs four ounces; the length, to the end of the tail, is near twelve inches: the breadth about fourteen: the bill is three inches long, of a dufky color, flat at the end, and often rough like fhagrin above and below. The head is divided lengthways with two black lines, and three of red, one of the laft paffing over the middle of the head, and one above each eye: between the bill and the eyes is a dufky line: the chin is white: the neck is varied with brown and red.

The fcapulars are beautifully ftriped lengthways
with black and yellow : the quil-feathers are duky, but the edge of the firlt is white, as are the tips of the fecondary feathers: the quil-feathers next the back are barred with black and pale red: the breaft and belly are white: the coverts of the tail are long, and almoft cover it: they are of a reddifh brown color. The tail conffifts of fourteen feathers; black on their lower part, then croffed with a broad bar of deep orange, another narrow one of black; and the ends white, or pale orange. The vent feathers a dull yellow: the legs pale green: the toes divided to their origin.
188. Great Smipe.

THIS fpecies is rarely found in England. A fine fpecimen, fhot in Lancafbire, is preferved in the Mufeum of Afton Lever, Efq.

The weight eight ounces. The head divided lengthways by a teftaceous line, bounded on each fi.te by another of black : above and beneath each eye is another : neck and breaft of a yellowifh white, finely marked with femicircular lines of black : belly, with cordated fpots: fides undulated. with black.

Back, coverts of wings, and fcapulars teftaceous, fpotted with black and edged with white. Primaries dufky. Tail ruft-colored, barred with black. Lees black?

Gid, Jackfnipe, and Jud- Scolopax gallinula. Lin. Jyf.
cock. Wil. orn. 291.
Raii fyn. av. 105. La petite Beccafine. Brifon av. V. 303. tab. 26. fo. 2. Pokerl. Scopoli, No. 139. Pizzardina. Zinan. IOI.
$244^{\circ}$
Danis Roer-Sneppe. Brunnich, 163.

Haar-Schnepfe, Pudel-Schnepfe, Kleinfte Schnepfe. Frifch, II. 231. Br. Zool. 121

THE haunts and food of this fpecies are the fame with thofe of the former ; it alfo feeds on fmall fnails: it is much lefs frequent among us, and very difficult to be found, lying fo clofe as to hazard being trod on before it will rife: the fight is never diftant, and its motion is more fluggif than that of the larger kind.

Its weight is lefs than two ounces, inferior by half to that of the fnipe; for which reafon the French call them deux pour un, we the balf fnipe. The dimenfions bear not the fame proportion; the length of the fnipe being twelve inches; this eight and a half: the bill an inch and a half long: crown of the head black, tinged with ruft color: over each eye is a yellow ftroke; the neck varied with white, brown, and pale red. The fcapular feathers narrow, very long, brown, bordered with yellow. The rump a gloffy bluin purple: the Vol. II.

Hh
belly
belly and vent white; the greater quil-feathers dufky : the tail brown, edged with tawny; confifting of twelve pointed feathers: the legs are of a cinereous green.

BILL ftraight, lender, not an inch and half long. NOSTRILS fall. TONGUE fender. TOES divided; generally the two outmoft connected at the bottom by a fall membrane.

Le Vanneau, Dixhuit, Pape- Raii Syn. av. no. chieu. Belon arr. 209. Zweiel. Genera av. 765 . II. 213 .
Pavonzino. Alder. av. III. Tringa vanellus. Lin. fyn. 202.

Pavoncella. Olina, 2I. Wipa, Kowipa, Blæcka. Faun. Lapwing, baftard Plover, or Pewit. Will. orr. 307. Vanellus, le Vanneau. Brisfor av. V. 94.tab.8. fig. I. Br. Zool. 122. Scopoli, No. 141.

## XXXI.

 SANDPIPER*。190. LapWING

THIS elegant species inhabits molt of the heaths and marfhy grounds of this inland. It lays four eggs, making a flight nett with a few bents. The eggs have an olive caff, and are fpotted with black. It is worthy of notice, that among water fowl, congenerous birds lay the fame number of eggs; for example, all of this tribe, alfo of the plo-

* This genus, the Tringa of Linncus, wanting an Ekglifo name, we have given it that of the Sandpipers; mont of the fpecies being converfant about fores; and their note whiffing or piping.
vers, lay four a-piece; the puffin genus only one; and the duck tribe, in general, are numerous layers, producing from eight to twenty.

The young as foon as hatched, run like chickens: the parents fhew remarkable folicitude for them, flying with great anxiety and clamour near them, ftriking at either men or dogs that approach, and often flutter along the ground like a wounded bird, to a confiderable diftance from their neft, to elude their purfuers; and to aid the deceit, become more clamorous when moft remote from it: the eggs are held in great efteem for their delicacy; and are fold by the London poulterers for three fhillings the dozen. In winter, lapwings join in vaft flocks; but at that feafon are very wild : their hefh is very good, their food being infects and worms. During Oitober and November, they are taken in the fens in nets, in the fame manner that Ruffs are, but are not preferved for fattening, being killed as foon as caught.

Their weight is about eight ounces: the length thirteen inches and a half: the breadth two feet and a haif. The bill is black, and little more than an inch long: the crown of the head of a fhining blacknefs: the creft of the fame color, confifting of about twenty flender unwebbed feathers of unequal lengths, the longeft are four inches: the cheeks and fides of the neck are white; but beneath each eye is a black line: the throat and fore part of the neck are black : the plumage on the hind part

## Class II. L A P W I N G.

mixed with white, afh-color and red: the back and fcapulars are of a moft elegant gloffy green; and the latter finely varied with purple: the leffer covert feathers of the wings are of a refplendent black blue and green: the greater quil-feathers black, but the ends of the four firft are marked with a white fpot: the upper half of the leffer quilfeathers are black, the lower white: thofe next the body of the fame colors with the fcapulars: the breaft and belly are white: the vent-feathers and the coverts of the tail orange color: the tail confifts of twelve feathers; the outmof on each fide is white, marked on the upper end of the inner web with a dufky fpot; the upper half of all the others are black, tipt with a dirty white; their lower half of a pure white : the legs are red: the irides hazel.

The female is rather lefs than the male.
Merret, in his Pinow, p. 182. fays, that there is in Corrwol a bird related to this; but lefs than a thrufh, having blue feathers, and a long creft.
191. Grey. Le pluvier gris. Belon av. Vanellus grifeus, le Vanneaus 262. gris. Brifon av. v. 100.

Pivier montano. Aldr. av. III. 207.

Wil. orn. 309.
Raii 今yn. av. 111. tab. 9 fig. 1.
Piviero montano. Zinan. 102. Bornbolmis Floyte-Tyten, Dolken, Brunnich, 176. Tringa fquatarola. Lin. Syf. Br Zool. 122. Scopoli, No. 252.

Faun. Suec. $\mathfrak{A p} .186$.

Descrip. T weighs feven ounces: the length to the tip of the tail is twelve inches: the breadth twentyfour: the bill black, about an inch long, ftrong and thick: the head, back, and coverts of the wings black, edged with greenifh afh-color, and fome white : cheeks and throat white, marked with oblong dufky fpots: the belly and thighs white: the exterior webs of the quil-feathers black: the lower part of the interior webs of the four firft white : the rump white: the tail marked with tranfverle bars of black and white: the legs of a dirty green : the back toe very fmall.

Thefe appear in fmall flocks in the winter time, but are not very common: their flefh is very delicate.
$-4$
$3:$

P1. LXIX.
REEVE.


## RUFF

No 14


Avis pugnax. Aldr. av. III. 167.

Wil. orn. 302.
Raii Syn. av. 107.
Krofsler. Kram. 352.
Tringa pugnax. Lin.fyf. 247 . Brufhane. Faun. Suec. $/ p$. 175. Le Combattant, ou Paon de
mer. Brifon av. v. 240. 192. Ruff. tab. 22.
Danis Bruufhane. Brunnich, 168.

Streitfchnepfe, Rampfhæhnlein. Frifch, II. 232, $235^{-}$ Br. Zool. 123. Scopoli, No. 140.

THE males, or Ruffs, affume fuch variety of colors in feveral parts of their plumage, that it is fcarce poffible to fee two alike; but the great length of the feathers on the neck, that gives name to them, at once diftinguifhes thefe from all other birds. On the back of their necks is a fingular tuft of feathers fpreading wide on both fides. Thefe, and the former, in fome are black; in others white, yellow, or ferruginous; but this tuft and the ruffs frequently differ in colors in the fame bird. The feathers that bear an uniformity of coloring through each individual of this fex, are the coverts of the wings, which are brown inclining to afh-color: the feathers on the breaft, which are often black or dufky: the four exterior feathers of the tail, which are of a cinereous brown; and the four middle, which are barred with black and brown: the bill is black towards the end; red at the bafe. The legs in all, are yellow. In moulting they lofe the character of the long neck-feathers, $\mathrm{Hh}_{4}$
nor do they recover it till after their return to the fens the fpring following. It is then they regain that ornament, and at the fame time a fet of fmall pear fhaped yellow pimples break out in great numbers on their face above the bill.

The Siags or male birds of the firf year want thefe marks, and have fometimes been miftaken for a new fpecies of Tringa; but they may be eafily known by the colors of the coverts of the wings, and the middle feathers of the tail.

The older the birds are, the more numerous the pimples, and the fuller and longer the ruffs.

The length of the male to the tip of the tail is one foot, the breadth two; of the Reeve ten inches, the breadth nineteen: the weight of the former when juft taken is feven ounces and a half; of the latter only four.

The Reeves never change their colors, which are pale brown : the back fpotted with black, nightly edged with white: the tail brown; the middle feathers fpotted with black: the breaft and belly white : the legs of a pate dull yellow.

Thefe birds appear in the fens in the earlieft fpring, and difappear about Michaelnas. The Reeves lay four eggs in a tuft of grafs, the firtt week in May, and fit about a month. The eggs are white, marked with large rufty fpots. Fowlers avoid in general the taking of the females, not only becaufe they are fmaller than the males; but that they may be left to breed.

Soon after their arrival, the males begin to bill, that is to collect on fome dry bank near a fplafh of water, in expectation of the females, who refort to them.

Each male keeps poffeffion of a fmall piece of ground, which it runs round till the grafs is worn quite away, and nothing but a naked circle is left. When a female lights, the ruffs immediately fall to fighting. I find a vulgar error, that ruffs muft be fed in the dark leaft they fhould deftroy each other by fighting on admiffion of light. The truth is, every bird takes its ftand in the room as it would in the open fen. If another invades its circle, an attack is made, and a battle enfues. They make ufe of the fame action in fighting as a cock, place their bills to the ground and fpread their ruffs. I have fet a whole room full a fighting by making them move their flations; and after quitting the place, by peeping through a crevice, feen them refume their circles and grow pacific.

When a fowler difcovers one of thofe bills, he places his net over night, which is of the fame kind as thofe that are called clap or day nets, only ir is generally fingle, and is about fourteen yards long and four broad.

The fowler reforts to his ftand at day break, at the diftance of one, two, three, or four hundred yards from the nets, according to the time of the feafon; for the later it is, the fhyer the birds grow. He then makes his firft pull, taking fuch birds
birds that he finds within reach : after that he places his ftuft birds or ftales to entice thofe that are continually traverfing the fen. An old fowler told me, he once caught forty-four birds at the firft hawl, and in all fix dozen that morning. When the ftales are fet, feldom more than two or three are taken at a time. A fowler will take forty or fifty dozens in a feafon.

There birds are found in Lincolinfire, the Ile of Ely, and in the eaft riding of Yorkßire*; where they are taken in nets, and fattened for the table, with bread and milk, hempfeed, and fometimes boiled wheat; but if expedition is required, fugar is added, which will make them in a formnight's time a lump of fat: they then fell for two frillings or half a crown a piece. Judgement is required in taking the proper time for killing them, when they are at the higheft pitch of fatnefs, for if that is neglected, the birds are apt to fall away. The method of killing them is by cutting off their head with a pair of fciffars: the quantity of blood that iffues is very great, confidering the fize of the bird. They are dreffed like the woodcock, with their inteftines; and, when killed at the critical time, fay the Epicures, are reckoned the moft delicious of all morfels.

[^5]Wil. orn. 302.
Raii fyn. av. 108.
Eatw. av. 276.
Le Canut. Brifon ar. V. 258.

Tringa canutus. Lin. Jy/a. 251.

Faun. Suec. $\sqrt{1}$. 183.

Iflandis Sidlingar-Kall. Nor- 193. Knot. vegis FiærePit. Fiær-Kurv, Fiær-Muus. Bornbolmis Rytteren.
Brunnich, Tringa maritima. 182.

Br. Zool. 123.

THE fpecimens that we had opportunity of examining, differ a little in colors, both from Mr. Willughby's defcription, and from Mr. Edwards's figure : the forehead, chin, and lower part of the neck in ours were brown, inclining to afh color: the back and fcapulars deep brown, edged with afh color: the coverts of the wings with white, the edges of the lower order deeply fo, forming a white bar: the breaf, fides, and belly white; the two firft ftreaked with brown: the coverts of the tail marked with white and dufky fpots alternately: the tail afh colored, the outmoft feather on each fide white: the legs were of a bluifh grey; and the toes, as a fpecial mark, divided to the very bottom: the weight four ounces and a half.

Thefe birds, when fattened, are preferred by fome to the ruffs themfelves. They are taken in great numbers on the coafts of Lincoln/bire, in nets fuch as employed in taking ruffs; with two or three birds, placed within: fourteen dozens have been taken at once. Their feafon is from the beginning of Auruift to that of November. They difappear with the firft frofts. Camden* fays they derive their name from king Canute, Knute, or Knout, as he is fometimes called; probably becaufe they were a favorite difh with that monarch. We know that he kept the feaft of the purification of the Virgin Mary with great pomp and magnificence at Ely, and this being one of the fen birds, it is not unlikely but he met with it there $\dagger$. Sbakespear in his Othello, fpeaking of Roderigo (if Mr. T'beobald's reading is juft) makes the Knot an emblem of a dupe:

> "I have rubb'd this young Knot almoft to the fenfe; " And he grows angry." Othello.
194. Ash Tringa cinerea. Brunnich, Braun und Weisfbunter Sandornith. 53 . lœuffer? Frich, II. 237. Br, Zool. 124 .

Descrif.

THIS fpecies weighs five ounces : the length is ten inches: the breadth nineteen: the head is of a brownifh afn color, fpotted with black: the

[^6]whole neck afh color, marked with dufky oblong ftreaks: the back and coverts of the wings elegantly varied with concentric femicircles of afh color, black and white: the coverts of the tail barred with black and white: the tail afh colored, edged with white: the breaft and belly of a pure white: the legs of a greenifh black: the toes bordered with a narrow membrane, finely fcolloped.

Thefe birds appear on the fhores of Flinthbire, in the winter time, in large flocks.

THIS fpecies is in the collection of Mr . Tunfal, 195. Browno is of the fize of a jack-fnipe. The bill is black: the head, upper part of the neck, and back, are of a pale brown, fpotted with black: coverts of the wings dufky, edged with dirty white: under fide of the neck white, ftreaked with black: the belly white: tail cinereous: legs black.

Bought in the London market.

Spotted Tringa. Edro. av. Tringa macularia. Lith, fyft. ig6. Spor277.

Turdus aquaticus, la Grive Br. Zool. 124. d'Ean. Brijon ary. V. 255.

THIS bird is common to Europe and America; according to Mr. Ediwards's figure, it is lefs than the preceding.

The

The bill is of the fame colors with that of the red flank: the head, upper part of the neck, the back and coverts of the wings, are brown, inclining to olive, and marked with triangular black foots : above each eye is a white line : the greater quil-feathers are wholly black, the leffer tips with white : the middle feathers of the tail are brown: the fide feathers white, marked with dufky lines: the whole under fide, from neck to tail, is white, marked with dusky foots: the female has none of there foots, except on the throat: the legs of a dusky flefh color. Mr. Edwards imagines there to be birds of paffage; the bird he toke his defcription from was shot in Elea.
197. Black. $\bigwedge^{\text {R. Bolton favored us with a defcription of this }}$ fpecies foot in Lincoln/bire.
Descrip.
It was the fize of a thrufh: the beak fort, blunt at the point and dusky: the noftrils black: the irides yellow: the head fall and flatted at top: the color white, mot elegantly fpotted with grey: the neck, fhoulders, and back mottled in the fame manner, but darker, being tinged with brown; in forme lights there parts appeared of a perfect black and gloffy: the wings were long: the quil-feathers black, croffed near their bare with a white line: the throat, breaft, and belly white, with faint brown and black foots of a longifh

GAMBET.

longinh form, irregularly difperfed; but on the belly become larger and more round; the tail fhort, entirely white, except the two middle feathers, which are black: the legs long and flender, and of a reddifh brown color.

Tringa Gambetta. Lin. fyf. Totanus ruber. Brifon, V. 198. Gam248. Faun. Suec. No. 177. 192. Scopoli, No. 142. вет. Gambetta. Wil. orn. 300. Tringa varieguta. Brunnich, Raii fyn.av. 117. Aldr.av. No. 181.

THIS fpecies is of the fize of the Green-hank: the head, back, and breaft cinereous brown, fpotted with dull yellow: the coverts of the wings, fcapulars, cinereous, edged with yellow: the primaries dusky: the fhaft of the firft feather white : belly white: tail dusky, bordered with yellow: legs yellow.

This fpecies has been flot on the coaft of Lincolnfire.

Turnftone, or Sea Dottrel. La Coulon-chaud, Arenaria. 199. Turno Wil. orn. 311. Brifon av. V. 132 . STONE.

Cat. Carol. I. 72.
Morinellus Marinus. Raii syn. aro. 112.

Tringa Morinellus. Lin. fyf.
Raii 249 .
Br. Zool. $125^{\circ}$
on the top; is very ftrong; black at the tip, and at the bafe whitifh : the forehead and throat are ath colored: the head, whole neck and coverts of the wings are of a deep brown, edged with a pale reddifh brown: the fcapular feathers are of the fame color, very long, and cover the back: that and the rump are white; the laft marked with a large triangular black fpot: the tail confits of twelve feathers, their lower half is white, the upper black, and the tips white: the quil-feathers are dufky, but from the third or fourth the bottoms are white, which continually increafes, till from about the nineteenth the feathers are entirely of that color: the legs are fhort and of an orange color.

Thefe birds take their name from their method of fearching for food, by turning up fmall ftones with their ftrong bills to get at the infects that lurk under them. The bird we toke our defcription from was hot in Sbropfbire. Mr. Ray obferved them flying three or four in company on the coafts of Cornwal and Merionetb/bire: and Sir Thomas Brown of Norwich difcovered them on the coaft of Norfolk; communicating the picture of one to Mr. Ray, with the name of Morinellus marinus, or fea dottrel.

Tringa interpres. Lin. $\delta$ yf. Edzw. 141.
248. Faur. Suec. No. 178. Arenaria, Le Coulon-chaud. Turnftone from Hudfon's Bay. Brifon, V. 132.

THIS fpecies is often fhot in the north of Scotland, and its inlands; alfo in Nortb America.

Is of the fize of a thrufh: forehead, throat, and belly white: breaft black: neck furrounded with a black collar; from thence another bounds the fides of the neck, and paffes over the forehead: head and lower part of the neck behind white; the firft ftreaked with dunky lines: back ferruginous, mixed with black: coverts of the tail white, croffed with a black bar: tail black, tipt with white: coverts of the wings cinereous brown; the lower order edged with white: primaries and fecondaries black; the ends of the laft white: tertials ferruginous and black: legs rather mort, and of a full orange.

| 201. GeEEN. Cinclus. Belon arv. 216. | Foun. Siec. SP. I80. |
| :--- | :--- | :--- |
| Gallínæaquaticæ fecunda fpe- | Le Beccafleau ou Cul-blanc, |
| cies de nov. adject. Gef. | Tringa. Brifon av. V. |
| ner av. 5 II. | I77. tab. 16. fo. I. |

Descrip. 1 HIS beautiful fpecies is not very common in thefe kingdoms. The head and hind part of the neck are of a brownifh afh color, ftreaked with white; the under part mottled with brown and white : the back, fcapulars, and coverts of the wings are of a dufky green, glofly and refplendent as $\lceil 1 \mathrm{lk}$, and elegantly marked with fmall white fpots: the leffer quil-feathers of the fame colors: the under fides of the wings are black, marked with numerous white lines, pointing obliquely from the edges of the feather to the fhaft, reprefenting the letter V : the rump is white; the tail of the fame color: the firt feather plain, the fecond marked near the end with one black fpot, the third and fourth with two, the fifth with three, and the fixth with four.

Except in pairing time, it is a folitary bird: it is never found near the fea; but frequents rivers, lakes, and other freln waters. In France it is
highly
highly efteemed for its delicate tafte; and is taken with limed twigs placed near its haunts.

Mr. Fleijcher favored us with a bird from Denmark, which, in all refpects, refembled this, except that the fpots were of a pale ruft color: Linnaus defrribes it under the title of Tringa littorea, Faun. Suec. 万p. 185. but we believe it does not differ fpecifically from that above defcribed.

> Tringa Icelandica. Lin. fyf. inter addenda.

> Randbriflanger. Brunnich, No. 180,

BIRDS of this fpecies have appeared in great flocks on the coaft of Effex, on the eftate of Col. Scbutz.

Crown of the head fpotted with black and ferruginous. The lower fide of the neck, the breaft, and belly of a full ferruginous color: back marked with black and ruft color: coverts of the wings ath color: legs black: bill ftrong, an inch and a half long: the whole length of the bird ten inches.

La Maub̉eche tachetée. Brijon V. 229?
203. AbERDEEN.

THIS was communicated by the late Doctor David Skene of Aberdeen.

Bill fender and black: head, back, leffer coverts of the wings, and the fcapulars, of a dull ferruginous color, fpotted with black : the greater coverts tipt with white: quil-feathers durky, edged on the exterior fide with white: breatt reddifh brown, mixed with dufky : belly and vent white : tail cinereous; two middle feathers longer than the reft : legs black; fize of the former.
204. Com- Gallinula hypoleucos (Fyf- Guinetta, la Guignette. Brif-
mon. terlin). Gefner av. 509. Aldr. av. 111. 182.
Wil. orn. $\mathrm{z}^{2} \mathrm{I}$.
Raii fin. av. 108.
Sandlaufferl. Kram. 353.
Tringa hypoleucos. Lin. $\int y / 2$ 250.

Snappa, Strandiftare. Foun. Suec. $\int p .182$.

THIS fpecies agrees with the former in its manners and haunts; but is more common: its note is louder and more piping than others of this
Descrip. genus. Its weight is about two ounces: the head is brown, Atreaked with downward black lines; the neck an obfcure afh color: the back and coverts of the wings brown, mixed with a gloffy green, elegantly marked with tranfverfe dukny lines: over each eye is a white itroke: the breaft and belly are of a pure white: the quil-feathers are brown, the finf entirely fo, the nine next marked on the inner

web with a white fpot: the middle feathers of the tail brown; edges fpotted with black and pale red: the exterior tipt and barred with white: the legs of a dull pale green.

Wil. orn. 205.
Raii Syn, av. 109.
Tringa alpina. Lin. Syft. 249.
Faun. Suec. $\int$ P. 18 r .
La Beccaffine d'Angleterre.
Brifon av. V. 309.

Danis Domfneppe, Ryle. 205. Dun o Brunnich, 167, \& 173. LIN. Kleinfte Schnepfe, or Kleinfte Sandlœuffer. Frijch, II. 241.

Br. Zool. 126. tab. fg. 2.

THIS fpecies is at once diftinguifhed from the Descrip. others by the fingularity of its colors. The back, head, and upper part of the neck are ferruginous, marked with large black fpots: the low. er part of the neck white, marked with fhort dufky ftreaks: the coverts of the wings afh color: the belly white, marked with large black fpots, or with a black crefcent pointing towards the thighs: the tail afh colored, the two middle feathers the darkeft: legs black: toes divided to their origin. In fize it is fuperior to that of a lark. Thefe birds are found on our fea coafts; but may be reckoned among the more rare kinds. They lay four eggs of a dirty white color, blotched with brown round the thicker end, and marked with a few fmall fpots of the fame color on the fmaller end. I received the eggs from Denmark; but as I have Mot thefe birds in May, and again in Auguft, on the fhores of II 3 Flintflire,

Fintfire, fuppofe they breed with us; bur I never difcovered their neft. They are common on the York/bire coafts, and efteemed a great delicacy.
206. Purre. L'Allouette de Mer. Belon Stint, in Sufex the Ox-eye.
av. 213.
Cinclus five Motacilla Mari-
tima, Lyfsklicker. Gefner av. 616.
Giarolo. Aldr. av. III. 188. The Stint. Wil. orn. 305.

$$
\text { Raii Syn. a.v. } 110 .
$$

N. Com. Petr. IV. 428.

L'Allouette de Mer, Cinclus. Brifon av. V. 211 . tab. 19. fig. 1.
Tringa cinclus. Lin. Syf. 25 1. Br. Zool. 126.

Descrip; HIS bird weighs about an ounce and a half: length feven inches and a half: extent fourteen inches: the head and hind part of the neck are afh colored, marked with dufky lines: a white ftroke divides the bill and eyes: the chin white : underfide of the neck mottled with brown : the back is of a browninh afh color: the breaft and belly white: the coverts of the wings and tail a dark brown, edged with light afn color or white: the greater coverts dufky, tipt with white: the upper part of the quil-feathers dusky, the lower white: the two middle feathers of the tail dusky, the reft of a pale afh color, edged with white: the legs of a dusky green ; the toes divided to their origin. The bill an inch and a half long, flender and black; irides dusky.

Thefe birds come in prodigious flocks on our
fea coafts during the winter: in their flight they perform their evolutions with great regularity; appearing like a white, or a dusky cloud, as they turn their backs or their breafts towards you. They leave our fhores in fpring, and retire to fome unknown place to breed.

They were formerly a weli known difh at tables; known by the name of Stints.

THIS is the left of the genus, fcarcely equal 207. Lattex. ling a hedge fparrow in fize. The head, upper fide of the neck, the back, and coverts of the wings brown, edged with black and pale rufty brown. Breaft and belly white.

The greater coverts dusky, tipt with white: the primaries and fecondaries of the fame colors. The tail dusky. Legs black.

This fpecimen was communicated to me by the Rev. Mr. Green, of Trinity College, Cambridge; and was fhot near that place in September. It is common to Nortb America and Europe.

| XXXII. | BILL frait, no longer than the head. |
| :--- | :--- |
| PLOVER. | NOSTRILS linear. |
| TONGUE |  |
|  | TOES, wants the hind toe. |

208. Golden. Le Pluvier Guillemot. Bclon Dalekarlis Akerhona, Lappis av. 260.
Pluvialis. Gefner av. 714.
Pivier. Aldr. av. III. 206. Wil. orn. 308.
Raii fyn. av. 111 .
Brachhennl. Kram. $354^{-}$
Rechter Brachvogel. Frijch, II. 217.

Hutti. Faun. Suec. Sp. 190. Pluvialis aurea, le Pluvier doré.

Brifon av. V. 43. Tab. 4 . fig. 1.
Piviero verde. Zinan. 102. Norvegis Akerloe, Cimbris Brok-Fugl، Brunnich, 187. Br. Zool. 128.
Charadrius Pluvialis. Lix. Syf. 254 .

THIS elegant fpecies is often found on our moors and heaths, in the winter time, in Descrip. fmall flocks. Its weight is nine ounces: its length eleven inches: its breadth twenty-four: the bill is fhort and black: the feathers on the head, back, and coverts of the wings are black, beautifully fpotted on each fide with light yellowifh green : the breaft brown, marked with greenifh oblong ftrokes: the belly white: the middle feathers of the tail barred with black and yellowifh green: the reft with black and brown: the legs black. We have obferved fome variety in thefe birds, but cannot determine whether it is owing to age or fex:
RED SAND-PIPER.


## GOLDEN PLOVER.


we have feen fome with black bellies, others with a mixture of black and white; others with bluifh legs, and fome with a fmall claw in the place of the hind toe.

They lay four eggs, harply pointed at the leffer end, of a dirty white color, and irregularly marked, efpeciaily at the thicker end, with black blotches and fpots. It breeds on feveral of our unfrequented mountains; and is very common on thofe of the ine of Rum, and others of the loftier $\mathrm{He}_{e}$ brides. They make a fhrill whifting noife: and may be inticed within fhot by a fkilful imitator of the note.

This fpecies, on account of its fpots, has been fuppofed to have been the Pardalis of Arifotle: but his account of the bird makes no mention of that diftinction: perhaps he thought that the name implied it. The Romans feem to have been unacquainted with the plover: for the name never once occurs in any of their writings. We derive it from the French Pluvier, pource qu'on le prend mieux en temps pluvieux qu'en nulle autre faifon*.

[^7]209. Long Legeed.

Le grand Chevalier ditta lie. Belon Portr. d'Oyfeaux, 53. Aldr. av. III. 176. Gefner av. 546 . Himantopus. Wil. omn. 297 Raii Jyn. av. 105.

Sibl. Scot. 19. Tab. 11. 13. L' Echaffe. Brifon av. V. 33. Tab. 3. fig. I .
Charadrius himantopus. Lin. Syjt. 255. Scopoli, No. 148.

THIS is the moft fingular of the Briti/h birds. The legs are of a length, and weaknefs greatly difproportioned to the body, which is inferior in fize to that of the green plover: this, added to the defect of the back toe, mutt render its paces Descrip. aukward and infirm. The naked part of the thigh is three inches and a half long; the legs four and a half: thefe, and the feet are of a blood red: the bill is black, above two inches long. The length from its tip to the end of the tail is thirteen inches : the breadth from tip to tip of the wing twentynine inches: the forehead, and whole under fide of the body are white: the crown of the head, back, and wings black: on the hind part of the neck are a few black fpots: the tail is of a greyin white: the wings when clofed extend far beyond it. Thefe birds are extremely rare in thefe iflands: Sir Robert Sibbald records a brace that were fhot in Scotland: another was fhot a few years ago on Stan-tun-Harcourt common near Orford, and we have feen


# Ceass II. D O T T R E L. 

them often in the cabinets of the curious at Paris, taken on the French coafts.


THE female dottrel, according to Mr. Willugh$b y$, weighs more than four ounces; the male above half an ounce lefs. The length of the female Descrip. ten inches; the breadth nineteen and a half: the male not fo large. The bill black, flender, depreffed in the middle, and not an inch long: the forehead, top and back of the head black, the former fpotted with white; a broad white ftroke that preffes over the eyes, furrounds the whole: the cheeks and throat are white: the neck of a cinereous olive color: the middle of the feathers of the back, and coverts of the wings and tail olive; but their edges of a dull deep yellow: the quilfeathers are brown, with brown thafts; but the exterior fide and the haft of the firft feather is white. The tail confifts of twelve feathers of a brown olive color, barred near their ends with blacks
black, and tipped with white. The breaft and fides are of a dull orange color; but immediately above that is a line of white, bounded above with a very narrow one of black. The belly (in the male) is black: thighs and vent-feathers white: legs yellowifh green: toes dufky.
Female. The colors of the female in general are duller: the white over the eye is lefs; and the crown of the head is mottled with brown and white. The white line crofs the breaft is wanting. The belly is mixed with black and white.
Place. Thefe birds are found in Cambridgefbire, LincolnBire, and Derbybire : on Lincoln-beath, and on the moors of Derbybpire they are migratory, appearing there in fmall flocks of eight or ten only in the latter end of April, and ftay there all May and part of fune, during which time they are very fat, and much efteemed for their delicate flavor. In the months of April and Sepiember they are taken on the Wilt/bire and Berk/bire downs : they are alfo found in the beginning of the former month on the fea fide at Meales in Lencafire, and continue there about three weeks, attending the barly fallows: from thence they remove northward to a place called Leyton Haws, and ftay there about a fortnight; but where they breed, or where they refide during winter, we have not been able to difcover. They are reckoned very foolifh birds, fo that a dull fellow is proverbially called a Dottrel. They were alfo believed to mimick the action of
the fowler; to ftretch out a wing when he ftretched out an arm, \&c. continuing their imitation, regardlefs of the net that was fpreading for them.

To this method of taking them, Michael Drayton alludes in his panegyrical verfes on Coryate's Crudities:

> Moft worthy man with thee it is even thus, As men take Dottrels, fo haft thou ta'en us; Which as a man his arme or leg doth fet, So this fond bird will likewife counterfeit.

At prefent, fportfmen watch the arrival of the Dottrels, and hoot them; the other method having been long difufed.


IT weighs near two ounces. The length is feDescrip. ven inches and a half; the breadth fixteen: the bill is half an inch long; the upper half orange color; the lower black; from it to the eyes is a
black line; the cheeks are of the fame color; the forehead white, bounded by a black band that paffes over from eye to eye; the crown of the head is of a fine light brown; the upper part of the neck is incircled with a white collar; the lower part with a black one; the back and coverts of the wings of a light brown; the breaft and belly white; the tail brown, tipt with a darker fhade; the legs yellow.

Thefe birds frequent our fhores in the fummer, but are not numerous. They lay four eggs of a dull whitifh color, fparingly fprinkled with black: at approach of winter they difappear.
212. SAND- Sanderling, or Curwillet. Wil. orn. 303. Raiifyn. av. 109 . Towillee. Borlafe bif. Corn- Charadrius Caladris. Lin. Syjt. ral. 247. Calidris grifea minor, la pe- Br. Zool. 129. add. plates.

WE have received this fpecies out of Lancafbire; but it is found in greater plenty on the Corrifh fhores, where they fly in flocks. The Descrip. fanderling weighs little more than one ounce three quarters. Its length is eight inches; extent fifteen. Its body is of a more nender form than others of the genus. The bill is an inch long, weak and black. The head, and hind part of the neck are

$$
\begin{aligned}
& \text { Class II. S A N D E R L I N G. } \\
& \text { afh-colored, marked with oblong black flreaks; } \\
& \text { the back and fcapulars are of a brownifh grey, } \\
& \text { edged with dirty white; the coverts of the wings, } \\
& \text { and upper parts of the quil-feathers dufky: the } \\
& \text { whole under fide of the body is white; in fome } \\
& \text { flightly clouded with brown. The tail confifts of } \\
& \text { twelve fharp pointed feathers of a deep anh color; } \\
& \text { the legs are black. }
\end{aligned}
$$

XXXIII. OYSTER CATCHER.

BILL Iong, compreffed, the end cuneated. NOSTRILS linear.
TONGUE, a third the length of the bill. TOES, only three.
213. Pied. La Pie, Becaffe de mer. Be- Pica marina. Caii opufc. 6z. lon av. 203.
Hæmatopus. Gefner a.v. 548. Tirma, or Trilichan. MarAldr. av. III. 176. tin's voy. St. Kilda. $35 \cdot$
Wil. orn. 297.
Raii Syn. av. 105 .
L'Hutrier, Pie de mer. Briffon av. V. 38. tab. 3. fg. I. The Oyfter Catcher. Cat. Carol. I. 85. Hœmatopus oftralegus. Lin. Syf. $257^{\circ}$ Marfpitt, Strandikjura, Faun. Suec. SP. 192.

SEA Pies are very common on moft of our coafts; feeding on marine infects, oyfters, limpets, \&xc. Their bills, which are compreffed fideways, and end obtufely, are very fit inftruments to infinuate between the limpet and the rock thofe fhells adhere to; which they do with great dexterity to get at the firh. On the coalt of France, where the tides recede fo far as to leave the beds of oyfters bare, thefe birds feed on them ; forcing the fhells open with their bills. They keep in fummer time in pairs, laying their eggs on the bare ground:

OYSTER - CATCHER.

they lay four of a whitifh brown hue, thinly fpotted and ftriped with black: when any one approaches their young, they make a loud and fhrill noife. In winter they affemble in valt flocks, and are very wild.

Weight fixteen ounces; length feventeen inches. Descrip. Bill three inches, compreffed, obtufe at the end, of a rich orange color: irides crimfon: edges of the eye-lids orange; beneath the lower a white fpot. Head, neck, fcapulars, and coverts of the wings a fine biack; in fome the neck marked with white : wings dufky, with a broad tranfverfe band of white: the back, breaft, belly, and thighs white: tail fhort, confifts of twelve feathers; the lower haif white; the end black: legs thick and ftrong; of a dirty flefh color: middle toe conneEted to the exterior toe as far as the firt joint by a ftrong membrane: the claws dufky, fhort and flat.

Vol. II.

K k
BILI,
XXXIV. BILL fender ${ }_{3}$ a little compreffed, and aightly RAIL. incurvated.
NOSTRILS fmall.
TONGUE rough at the end.
TAIL very fhort.

214, Water. Le Rafle noir. Belon av. I12. Rallus aquaticus. Lin. Syft. Gallina cinerea (afhhunlin).

Gefner av. 515. 262.

Faun. Suec. Jp. 195.
Ralla aquatica. Aldr. ar. Rallus aquaticus, le Rafle III. 179. d'Eau. Brifon av. 15 1. taË. Water-rail, Bilcock, or Brook 12. fog. 2. Scopoli, No. 155. Ouzel. Wil. orn. 314. Raii fyn. av. 113. Waffer hennl Kram. 348.

Norvegis Vand-Rixe. Feroenfibus Jord-Koene. Brunnich;s 193. Br. Zool. 130 .

THE water rail is a bird of a long Mender body, with fhort concave wings. It delights. lefs in flying than running; which it does very fwiftly along the edges of brooks covered with bufhes: as it runs, every now and then flirts up its tail; and in flying hangs down its legs : actions it has in common with the water hen.
Descrip. Its weight is four ounces and a half. The length to the end of the tail twelve inches: the breadth fixteen. The bill is flender, flightly incurvated, one inch three quarters long: the upper mandible black, edged with red; the lower orange colored:

## WATER-RAIL.



CRAKE GALLINULE.
No 216:

the irides red : the head, hind part of the necik, the back, and coverts of the wings and tail are black, edged with an olive brown; the bafe of the wing is white; the quil-feathers and fecondaries durky : the throat, breaft, and upper part of the belly are afh-colored : the fides under the wings as far as the rump finely varied with black and white bars. The tail is very fhort, confifts of twelve black feathers ; the ends of the two middle tipt with ruft-color; the feathers immediately beneath the tail white. The legs are placed far behind, and are of a dulky flefh-color. The toes very long, and divided to their very origin; though the feet are not webbed, it takes the water; will fwim on it with much eafe; but oftener is oblerved to run along the furface.

This bird is properly fui generis, agreeing with no other, fo forms a feparate tribe. M. Brifon and Linncus place it with the land Rail, and Mr. Ray with the water hens, which have their peculiar characters, fo very diftinct from the Rail, as to conftitute another genus, as may be obferved in the generical table preceding this clafs.
XXXV. BILL thick at the bafe floping to the point, the GALLINULE. upper mandible reaching far up the forehead, callous.
WINGS fhort and concave. BODY compreffed.
TOES long, divided to the origin.
215. Spot- Gallinula ochra (Wynker- Brifon av.V. 155.tab. 13. ted. nell). Gefner. av. 513. fig. 1.
Porcellana, Porzana, Grugnetto. Aldr. av. III. 18 1.
Grinetta. Wil. orn. fp. 8. p. - 315.

Raii fyn. av. $11 \overline{5}$. /p. 7. Rallus aquat. minor, five Maruetta, le petit Rafle Couchouan ou Marouette. Argenv. Litbel. 533.tab. 25. Kleines gefprenkeltes Wafferhuhn. Frijch, II. 211. Rallus porzana, Lino oyf. 262.

Br. Zool. 130. d'Eau, ou la Marouette.

$\Gamma$HIS fpecies is not very frequent in Great Britain, and is faid to be migratory. Inhabits the fides of fmall ftreams, concealing itfelf among Descrip. the buhhes. Its length is nine inches; its breadth fifteen: its weight four ounces five drachms. The head is brown, fpotted with black; the neck a deep olive, fpotted with white; from the bill beyond the eyes is a broad grey bar: the feathers of the back are black next their flafts, then olive colored, and edged with white: the fcapulars are olive, finely

Class II. CRAKE GALLINULE.
finely marked with two fmall white fpots on each web: the legs of a yellowif green.

Le Rafle rouge or de Genet. Belon av, 212.
Ortygometra, Crex. Gefner a.v. $3^{61}, 36 z$.

Aldr. av. III. 179.
Rail, or Daker Hen. Wil. orn. 170. Pbil. Tranf. II. 853.

Raī Syn. av. 58.
Corn-crek. Sib. Scot. 16.
Corn-craker. Martin's Weft. Ifles, 7 I.
Rallus geniftarum, le Rafle de Genet, ou Roi des Cail-
les. Brifon av. V. 159, 216. Crakz. Tab. 13 . fig. 2.
Wachtel-konig. Kram. 349.
Rallus Crex. Lin. Jyf. 261. Angfnarpa, Korknarr, Seydreifwer. Faun. Suec. $\sqrt{p}$. 194.

Danis \& Norv. Vagtel-Konge. Aker-Rixe. Skov-Snarre, Norvegis quibufdam Ager. hoene. Brunnich, 192. Br. Zool. 131.
Roftz. Scopoli, No. 154 .

THIS fpecies has been fuppofed by fome to be the fame with the water rail, and that it differs only by a change of color at a certain feafon of the year: this error is owing to inattention to their characters and nature, both which differ entirely. The bill of this fpecies is fhort, ftrong, and thick; formed exactly like that of the water hen, and makes a generical difinction. It never frequents watery places, but is always found among corn, grafs, broom, or furze. It quits this kingdom before winter; but the water rail endures our fharpeft feafons. They agree in their averfion to flight; and the legs, which are remarkably long for the fize of the bird, hang down whilft
they are on the wing; they truft their fafety to their fwiftnefs of foot, and feldon are fprung a fecond time but with great difficulty. The land rail lays from twelve to twenty eggs, of a dull white color, marked with a few yellow fpots; notwithftanding this, they are not very numerous in this kingdom. Their note is fingular, refembling the word Crex often repeated They are in greateft plenty in Anglefen, where they appear about the twentieth of April, fuppofed to pafs over from Ireland, where they abound : at their firft arrival it is common to thoot feven or eight in a morning. They are found in moft of the Hebrides, and the Orknies. On their arrival they are very lean, weighing only fix ounces; but before they leave this inand, grow fo fat as to weigh above eight.

Descrip.

The feathers on the crown of the head, hind part of the neck, and the back, are black, edged with bay color: the coverts of the wings of the fame color; but not fpotted: the tail is fhort, and of a deep bay: the belly white: the legs afh-colored.

さa Poulette d'eau. Belorz $a$ av. Gallinella aquatica, Porza211.

Ein wafferhen. Gefner av. 501.

Chloropus major noftra. Aldr. av. III. $177^{\circ}$
Common Water-hen, or Moorhen. Wil. orn. 312.
Raii fyn. av. 112.
Gallinula, la Poule d'eau. Br. Zool. 131. Brifon av. VI. 3. Tab. 1.
none. Zinan. 109.
Wafferhennl. Kram. 358.
Rothblæffige Kleine Wafferhuhn. Fricch, II. 209.
Fulica chloropus. Lin. Syt. $25^{8 .}$
Brunnich, 191. Scopoli, No. 153.

THE male of this fpecies weighs about fifteen ounces. Its length to the end of the tail
217. $\mathrm{Com}=$ MON. freh waters, and in the very waters, if they be weedy. It builds upon low trees and fhrubs by the water fide; breeding twice or thrice in the fummer; and when the young are grown up, drives Eggs. them away to fhift for themfelves. They lay feven eggs of a dirty white color, thinly fpotted with ruft color. It ftrikes with its bill like a hen; and in the fpring has a fhrill call. In flying it hangs down its legs: in running often flirts up its tail, and fhews the white feathers. We may obferve, that the bottoms of its toes are fo very flat and broad (to enable it to fwim) that it feems the bird that connects the cloven-footed aquarics with the next tribe; the fin toed.

## RED.AND GREY, SCOLLOP TOED SAND-PIPER.



# Sect. II. FIN-FOOTED BIRDS. 

BILL ftrait and fender. NOSTRILS minute. BODY and LEGS like the Sandpiper. TOES furnifhed with fcalloped membranes.

Grey Coot footed Tringa. Tringa Lobata. Lin.fyf. 249. 218. Grey.<br>Edw. av. 308.<br>Pbil. Tranf. Vol. 50.<br>F aun. Suec. $\sqrt{1} .179$. Le Phalarope. Brifon av. Br. Zool. 126. VI. 12.

THiS is about the fize of the common Purre,

Descrip. weighing one ounce. The bill black, not quite an inch long, flatted on the top, and channeled on each fide; and the noftrils are placed in the channels: the eyes are placed remarkably high in the head: the forehead white: the crown of the head covered with a patch of a dufky hue, fpotted with white and a pale reddifh brown; the reft of the head, and whole under part of the neck and body are white: the upper part of the neck of a light grey: the back and rump a deep dove color, marked with dufky fpots: the edges of the fca-
pulars are dull yellow: the coverts dufky; the lower or larger tipt and edged with white: the eight firft quil-feathers duflyy; the fhafts white; the lower part of the interior fide white: the fmaller quilfeathers are tipt with white: the wings clofed, reach beyond the tail : the feathers on the back are either wholly grey or black, edged on each fide with a pale red: the tail dufky, edged with afhcolor: the legs are of a lead color: the toes extremely fingular, being edged with fcolloped membranes like the coot: four fcollops on the exterior toe, two on the middle, and the fame on the interior; each finely ferrated on their edges.

This bird was fhot in York/bire, and communicated to us by Mr. Edwords.
219. Red. Mr. Fobnfon's fmall cloven Larus fidipes alter noftras.
footed Gull. Wil. orn. 355 . Raii fyn. av. 132. Ray's collection of Englijs Edrw. av. 143. words, \&e. p. 92. Tringa hyperborea. Lin, fyfo 249 .

THIS fpecies was fhot on the banks of a frefh water pool on the ille of Stronfa, May 1769. It is of the fize of the Purre. The bill is an inch long, black, very flender, and ftrait almoft to the end which bends downwards : the crown of the head, the hind part of the neck and the coverts of the wings are of a deep lead color; the back and fcapulars
fcapulars the fame, ftriped with dirty yellow: the quil-feathers dusky; the fhafts white: crofs the greater coverts is a ftripe of white: the chin and throat white: the under part and fides of the neck bright ferruginous: the breaft dark, cinereous: belly white : coverts of the tail barred with biack and white; tail fhort, cinereous: legs and feet black.

Mr. Ray faw this fpecies at Brignal in York/bire: Mr. Edwards received the fame kind from North America, being common to the North of Europe and America.
XXXVII. Short thick BILL, with a callus extending up the соот. forehead.
NOSTRILS narrow and pervious.
TOES furnifhed with broad fcalloped membranes.
zo. Com- La Poulle d'eau. Belon av. Rohr-hennl, Blasी. Kram. MON. 181. `. 357.

Fulica recentiorum. Gefier Weifbiæfige groffe Wafferav. 390. huhn. Frich, II. 208. Follega, Follata, Fulca. Aldr. Fulica atra. Lin. Syf. 257. a.v. III. 39, $4^{2}$.

Wil. orn. 319.
Raii fyn. aच. 116.
La Foulque, ou Morrelle. Brifon av. VI. 23.tab. 2. fig. 1.
Folăga, o Polon. Zinain. 108.

Blas-klacka, Faun. Sueco sp. 193.

Danis Vand-Hoene, BlesHoene. Brurnich, 190. Br. Zool. 132.
Lika. Scopoli, No. I49.

Descrip.

T算HESE birds weigh from twenty-four to twen-ty-eight ounces. Their belly is afh-colored; and on the ridge of each wing is a line of white: every part befides is of a deep black: the legs are of a yellowinh green: above the knee is a yellow fpot.

Coots frequent lakes and fill rivers: they make their nelt among the rufhes, with grafs, reeds, \&c. floating on the water, fo as to rife and fall with it, They lay five or fix large eggs, of a dirty whitifh hue, fprinkled over with minute deep ruft color fpots; and we have been credibly informed that

they will fometimes lay fourteen and more. The young when juf hatched are very deformed, and the head mixed with a red coarfe down. In winter they often repair to the fea: we have feen the channel near Soutbampton covered with them: they are often brought to that market, where they are expofed to fale, without their feathers, and fcalded like pigs. We once faw at Spalding, in LincolnSire, a coot fhot near that place that was white, except a few of the feathers in the wings, and about the head.

Fulica aterrima. Lin. 258. La grand foulque ou la 221. Great, Scopoli, No. $150 . \quad$ Macroule. Brifon av. VI. Greater Coot. Wil. oin. 320.28 .

Belon 182.

THIS fpecies differs from the preceding only in its fuperior fize; and the exquifite blacknefs of the plumage.

Difcovered in Lancoffire and in Scotland.
XXXVIII. BILL ftrong, ftrait, fharp pointed. GREBE*. TAIL, none.

LẸGS flat, thin, and ferrated behind with a double row of notches.
222. Tippet. Colymbus major. Gefner av. Raii fyn, av. 125.
138. Colymbus, la Grebe. Brifon Aldr. av. III. 104. av. VI. 34. tab. 3. fig. I. Greater Loon, or Arsfoot. Colymbus urinator Lin. Syt. Wil. orn. 339. 223 Scopoli, No. 102.
Greater Dobchick. Edw. av. Br. Zool. 133.
360. fig. 2.

THIS differs from the great crefted Grebe in being rather lefs; and wanting the creft and ruff. The fides of the neck are ftriped downwards from the head with narrow lines of black and white : in other refpects the colors and marks agree with that bird.

This fpecies has been fhot on Roferne Mere in Cbefbire; is rather fcarce in England, but is common in the winter time on the lake of Geneva. They appear there in flocks of ten or twelve: and are killed for the fake of their beautiful fkins.
> * The Grebes and Divers are placed in the fame genus, i. e. of Colymbi, by Mr. Ray and Linnous; but the difference of the feet, forbade our judicious friend, M. Brifon, from continuing them together; whofe example we have followed.


TIPPET GREBE.

The under fide of them being dreft with the feathers on, are made into muffs and tippets; each bird fells for about fourteen hillings.

Grand Plongeon de riviere.
Belon a.v. 178.
Ducchel. Gefiner av. 138.
Aldr. av. III 104.
Avis pugnax 8va. Aldx. 169.
Greater cretted and horned
Doucker Wil. orn. 340.
Afh-colored Loon of Dr.
Brown, ibid. Raii Jyn. ars. 124.

Plott's biff. Staff: 229. tab. 22, The Cargoofe. Cbarleton ex. 107.

Pet. Gaz. I. tab. 43. fig. 12. : Br. Żool. I32.
Colymbus criftatus. Lin. 3 yf.
> 222. Scopoli, No. 99. Famn. Suec. SP. 151. La Grebe hupée. Brifonar. VI. 38. 'aab. 4. et Colymbus cornutus. $45^{\circ} t a b$. 5 . fig. 1.
> Smergo, Fifolomarino. Zinan. 107.

> Donis Topped og Halfraved Dykker, Topped Hav Skiœre. Brunnich, 135.
> Gehoernter Scehahn, Noerike. Frich, II. 183.

THIS fpecies weighs two pounds and a half. Its length is twenty-one inches: the breadth thirty: the bill is two inches one-fourth long; red at the bafe; black at the point: between the bill and the eyes is a ftripe of black naked flin: the irides are of a firte pale red: the tongue is a thirdpart fhorter than the bill, flender, hard at the end, and a little divided: on the head is a large dufky creft, feparated in the middie. The cheeks and throat are furrounded with a long pendent ruff, of a bright tawny color, edged with black : the chin is white: from the bill to the eye is a black
line, and above that a white one: the hind part of the neck, and the back are of a footy hue: the rump, for it wants a tail, is covered with long foft down.

The covert feathers on the fecond and third joints of the wing, and the under coverts are white : all the other wing feathers, except the fecondaries, are dunky, thofe being white: the breaft and belly are of a moft beautiful filvery white, gloffy as fattin, and equal in elegance to thofe of the Grebe of Genera; and are applied to the fame ufes: the plumage under the wings is dufky, blended with tawny: the outfide of the legs, and the bottom of the feet are dufky: the infide of the legs, and the toes of a pale green.

Thefe birds frequent the Meres of Sbropp/bire and Cbefbire, where they breed; and in the great Eaft Fen in Lincolvfire, where they are called Gaunts. Their fkins are made into tippets, which are fold at as high a price as thofe that come from $G_{l}$ neva.

This fpecies lays four eggs, white, and of the fize of thofe of a pigeon; the neft is formed of the roots of bugbane, ftalks of water lilly, pond weed and water violet, floating independent among the reeds and flags; the water penetrates it, and the bird fits and hatches the eggs in that wet condition; the neft is fometimes blown from among the flags into the middle of the water: in thefe circumftances, the fable of the Halcyon's neft, its fuctivage
fluctivaga domus, as Statius expreffes it, may in fome meafure be vindicated.

Fluctivagam fic frpe domum, madidofque penates
Halcyone deferta gemit; cuin pignora fævus Aufter, et algentes rapuit Thetis invida nidos.

Thebaid. lib. ix. 360.

It is a careful nurfe of its young, being obferved to feed them moft affiduoully, commonly with fmall ells; and when the infant brood are tired, will carry them either on its back or under its wings. This bird preys on fifh, and is almoft perpetually diving: it does not fhew much more than the head above water, and is very difficult to be fhot, as it darts down on the appearance of the left: danger. It is never feen on land; and though difturbed ever fo often, will not fly farther than the end of the lake. Its kin is out of feafon about February, lofing then its bright color: and in the breeding time its breaft is almoft bare. The flefh of this bird is exceffively rank : but the fat is of great virtue in rheumatic pains, cramps and paralytic contractions.
224. Eared. Eared dobchick. Edw. a.v. Norvegis Sav-Orre, Soe-Orre. 96. fog. 2. Bornholmis Soe-Hoene. IfLa Grebe a Oreilles. Brifon av. VI. 54 . landis Flauefkitt. Brunnich, 136. Colymbus auritus. Lin. fyf. Br. Zool. 133. 223. Scopoli, No. 100.

Descrip. HE length of this fpecies to the rump is one foot; the extent twenty-two inches: the bill black, flender and very nightly recurvated: the $i$ rides crimfon: the head and neck are black; the throat fpotted with white: the whole upper fide of a blackifn brown, except the ridge of the wing about the firft joint, and the fecondary feathers, which are white: the breaft, belly, and inner coverts of the wings are white : the fubaxillary feathers, and fome on the fide of the rump, furruginous: behind the eyes, on each fide, is a tuft of long loofe ruft colored feathers, hanging backwards : the legs of a dunky green.

Thefe birds inhabit the fens near Spalding, where they breed. I have feen both male and female, but could not obferve any external difference. They make their neft not unlike that of the crefted grebe; and lay four or five fmall white eggs.


EARED GREBE.


$$
\begin{aligned}
& \text { The black and white Dob- Br. Zool. 133. } \\
& \text { chick. Edzw. av. 96. fo. I. Colymbus nigricans? Scopoli, } \\
& \text { Colymbus minor, la petite No. IoI. } \\
& \text { Grebe. Brifon av. VI. } 56 .
\end{aligned}
$$

THE length from the bill to the rump eleven inches: the extent of wings twenty : the bill was little more than an inch long. The crown of the head, and whole upper fide of the body dufky: the inner coverts, the ridge of the wing, and the middle quil-feathers were white; the reft of the wing dufky : a bare fkin of a fine red color joined the bill to the eye : the whole underfide from the breaft to the rump was a filvery white: on the thighs were a few black fpots. In fome birds the whole neck was afh colored: fo probably they might have been young birds, or different in fex. Inhabits the Fens of Lincolu/bire.

Le Caftagneux, ou Zoucet. Raii fyno a.v. 125. Belon a.v. 177. Colymbus fluviatilis, la Grebe Mergulus fluviatilis (Duc- de Riviere, ou le Caftagchelin, Arfsfufs). Gefiner av. 141 .
Trapazorola arzauolo, Piombin. Aldr. av. III. 105. Didapper, Dipper, Dobchick, fmall Doucker, Loon, or Arsfoot. Wil orn. 340. neux. Brifon av. VI. 59. Colymbus auritus. Lin. Sy.t. 223.

Kleiner Seehahn, or Noerike. Frich, II. 184. ik, -Br. Zool. 134 .

THE weight of this fpecies is from fix to feven ounces. The length to the rump ten inches:

$$
\mathrm{L}_{1}
$$

to the end of the toes thirteen: the breadth fixteen. The head is thick fet with feathers, thofe on the cheeks, in old birds, are of a bright bay : the top of the head, and whole upper fide of the body, the neck and breaft, are of a deep brown, tinged with red: the greater quil-feathers dufky: the interior webs of the leffer white : the belly is afh colored, mixed with a filvery white, and fome red : the legs of a dirty green.

The wings of this fpecies, as of all the other, are fmall, and the legs placed far behind: fo that they walk with great difficulty, and very feldom Aly. They truft their fafety to diving; which they do with great fwiftnefs, and continue long under water. Their food is fifh, and water plants. This Ness. bird is found in rivers, and other frefh waters. It forms its neft near their banks, in the water; but without any faftening, fo that it rifes and falls as that does. To make its neft it collects an amazing quantity of grafs, water-plants, \&xc. It lays five or fix white eggs; and always covers them when it quits the neft. It fhould feem wonderful how they are hatched, as the water rifes through the neft, and keeps them wet; but the natural warmth of the bird bringing on a fermentation in the vegetables, which are full a foot thick, makes a hot bed fit for the purpofe.

$G^{n}$R. with a black chin. Fore part of the neck ferruginous: hind part mixed with durky. Belly cinereous and filver intermixed. Rather larger than the laft.

Inhabits Tiree, one of the Hebrides.

## Section III. WEB-FOOTED BIRDS.

xxxix. BILL L long, fender, very thin, depreffed, bending AVOSET. upwards.
NOSTRILS narrow, pervious. TONGUE hort. LEGS very long. FEET palmated. Back toe very fall.
228. Scoop- Recurviroftra. Gefner av. Avofetta, L'Avocette. Brifon ing.
231.

Avofetta, Beccoitorto, Bescoroella, Spinzago d'acqua. Ald. av. III. II 4.
Will. orr. j21.
Rail Sin. ave 117.
The Scooper. Charlton ex. 102.

The crooked Bill. Dale's bit. Harwich, 402. Plat's bit. Staff. 231 .
av. VI. 538. Tab. 47. fig. 2.
Krumbfchnabl. Gram, 348. Recurviroftra Avofetta. Lin. Syst. 256. Scopoli, No. 129. Skarflacka, Alfit. Faun. Suec. fo. 191.
Denis Klyde, Loufugl, Forkcert Regnfpove. Br. 188. Br. Zool. 134 .

AN Avocet that we foot weighed thirteen ounces. Its length to the end of the tail was eighteen inches, to that of the toes twenty-two: the breadth thirty. This bird may at once be diftinguifhed from all others, by the fingular form of its bill; which is three inches and a half long, flender, compreffed very thin, flexible, and of a fubftance like whalebone; and contrary to the bills

AVOSET

of other birds, is turned up for near half its length. The noftrils are narrow and pervious: the tongue fhort : the head very round: that, and half the hind part of the neck black; but above and beneath each eye is a fmall white fpot: the cheeks, and whole under fide of the body from chin to tail is of a pure white: the back, exterior fcapular feathers, the coverts on the ridge of the wings, and fome of the leffer quil-feathers, are of the fame color; the other coverts, and the exterior fides and ends of the greater quil-feathers, are black: the tail confifts of twelve white feathers: the legs are very long, of a fine pale blue color, and naked far above the knees: the webs dufky, and deeply indented: the back toe extremely fmall.

Thefe birds are frequent in the winter on the fhores of this kingdom: in Gloucefierßire, at the Severn's Mouth; and fometimes on the lakes of Sbrophbire. We have feen them in confiderable numbers in the breeding feafon near Foffdike Wa/h in Lincoln乃ire. Like the lapwing when difturbed they flew over our heads, carrying their necks and long legs quite extended, and made a fhrill noife ( $\mathcal{T} w i t$ ) twice repeated, during the whole time. The country people, for this reafon, call them Telpers; and fometimes diftinguifh them by the name of Picarini. They feed on worms and infects that they fcoop with their bills out of the fand; their fearch after food is frequently to be difcerned on our fhores by alternate femicircular marks in the fand, which fhew their progrefs. They lay two eggs about the fize of thofe of a pigeon, white tinged with green, and marked with large black fpots.

BILL ftrong, thick, compreffed. XL. AUK. NOSTRILS linear; placed near the edge of the mandible.
TONGUE almoft as long as the bill. TOES, no back toe.

Goirfugel. Cluffi exot. 367. Eforokitfols*. Crantz's Greenl. 229. Great.

Penguin. Wormii, 300.
Wil. orn. 323 .
Raii Jin. arv. 119.
Edz. av. 147.
Martin's coy. St. Kilda. 27.
Avis, Gare dicta. Sib. Scot.
III. 22.

Alca major, le grand Pingoin.
Brifon av. VI. 85. Tab. 7.

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\text { I. } 82 \text {. }
$$

Alca impennis. Lin.fyft. 210.
Faun. Suec. $\delta p .140$.
IJandis Gyr-v Geyrfugl. Norvegis Fixrt, Anglemaage, Penguin, Brillefugl. Brunwich, 105.
Br. Zool. 136.

ACCORDING to Mr. Martin, this bird breeds on the ifle of St. Kilda; appearing there the beginning of May, and retiring the middle of Fune. It lays one egg, which is fix inches long, of a white color; fome are irregularly marked with purplifh lines croffing each other, others blotched with black and ferruginous about the thicker end : if the egg is taken away, it will not lay another

[^8]that feafon. A late writer* informs us, that it does not vifit that ifland annually, but fometimes keeps away for feveral years together ; and adds, that it lays its egg clofe to the fea-mark; being incapable, by reafon of the fhortnefs of its wings, to mount higher.

The length of this bird, to the end of its toes, is three feet; the bill, to the corner of the mouth, four inches and a quarter: part of the upper mandible is covered with fhort, black, velvet like feathers; it is very ftrong, compreffed and marked with feveral furrows that tally both above and below : between the eyes and the bill on each fide is a large white fpot : the reft of the head, the neck, back, tail and wings, are of a gloffy black: the tips of the leffer quil-feathers white : the whole under fide of the body white: the legs black. The wings of this bird are fo fmall, as to be ufelefs for flight : the length, from the tip of the longeft quil-feathers to the firt joint, being only four inches and a quarter.

This bird is obferved by feamen never to wander beyond foundings; and according to its appearance they direct their meafures, being then affured that land is not very remote. Thus the modern failors pay refpect to auguries, in the fame manner

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\text { * Macaulay's bift. St. Kilda. p. } 156 .
$$

LITTLE AUK.

-

 two thoufand years ago.



Aves. 597:
From birds, in failing men inftructions take, Now lye in port; now fail and profit make.

Razor-bill, Auk, Murre. Alca torda. Lin. fyf. 210.
Wil. orn. 325 . Tord, Tordmule. Faun. Suec. Raii fyn. av. $119 . \quad$ sp. 139.
The Falk. Martin's voy. St. Norvegis Klub-Alke, Klympe. Kilda. 33 .
The Marrot. Sib. bif. Fife, 48.

Edw. av. 358. fig. 2.
Alca, le Pingoin. Brifon av. Br. Zool. 136. Scopoli, No. VI. 89. Tab. 8. fig. 1. 94.

THESE fpecies weigh twenty-two ounces and Descrip. a half. The length about eighteen inches : the breadth twenty-feven. The bill is two inches long, arched, very ftrong and fharp at the edges; the color black: the upper mandible is marked with four tranfverfe grooves; the lower with three; the wideft of which is white, and croffes each mandible. The infide of the mouth is of a fine pale yellow: from the eye to the bill is a line of white: the head, throat, and whole upper fide of the body are black; the wings of the fame color, ex-
230. Razorbill. Klumburnevia. Groenlandis Awarfuk. Danis Alke. Brunnich, 100.
cept the tips of the leffer quil-feathers, which are white: the tail confifts of twelve black feathers, and is Sharp pointed: the whole under file of the body is white: the legs black.

There birds, in company with the Guillemot, appear in our feas the beginning of February; but do not fettle on their breeding places till they begin to lay, about the beginning of May. They inhabit the ledges of the higheft rocks that inpend over the fea, where they form a grotefque appearance; fitting clofe together, and in rows one above the other. They properly lay but one egg a piece, of an extraordinary fize for the bulk of the bird, being three inches long: it is either white, or of a pale fa green, irregularly fpotted with black : if this egg is deftroyed, both the auk and guillemot will lay another; if that is taken, then a third : they make no nett, depofiting their egg on the bare rock : and though fuck multitudes lay contiguous, by a wonderful inftinct each diftinguifhes its own. What is alpo matter of great amazement, they fix their egg on the froth rock, with fo exact a balance, as to fecure it from rolling off; yet Should it be removed, and then attempted to be replaced by the human hand, it is extremely difficult, if not impofible to find its former equilibrium.

The eggs are food to the inhabitants of the coats they frequent; which they get with great hazard; being lowered from above by ropes, rutting to
the ftrength of their companions, whofe footing is often fo unftable that they are forced down the precipice, and perifh together.

Alca minor, le petit pingoin. Alca unifulcata. Brunnich,

THIS weighs only eighteen ounces: the length

Descrip. fifteen inches and a half: the breadth twentyfive inches. The bill is of the fame form with the Auk's, but is entirely black. The cheeks, chin, and throat are white; in all other refpects it agrees with the former fpecies: we can only obferve, that this was fhot in the winter, when the common fort have quitted the coafts.

When this bird was killed, it was obferved to have about the neck abundance of lice, refembling thofe that infeft the human kind, only they were fpotted with yellow.

The Alca Baltbica of Brunnich, No. II5, a variety in all refpects like the common kind, only the under fide of the neck white, is fometimes found on our coafts.
232. Puffin. Puphinus anglicus. Gefner Caii opufc. $97 \cdot$ ar. $725^{\circ}$
Pica marina. Aldr. av. III. 92.

Puffin, Coulterneb, \&c. Wil. orn. 325.
Raii fyn. av. 120. Edw. av. 358. fig. I:
The Bowger. Martin's voy'. St. Kilda. 34 .
Fratercula, le Macareux. Briffon a.v. VI. 8I. Tab. 6.

Anas arctica. Cluffi Exot. 104.

Alca arctica. Lin. Jijf. 21 I. Faun. Suec. Sp . 14 I .
Iflandis \& Norveg. Lunde, bujus pulli Lund Toller. Danis Iflandfk Papegoye. Brunnich, 103.
See-Papagey, or See-Taucher. fig. 1.

Descrip. HIS bird weighs about twelve ounces: its length is twelve inches : the breadth from tip to tip of the wings extended, twenty-one inchBill. es: the bill is thort, broad at the bafe, comprefled on the fides, and running up to a ridge, triangular and ending in a fharp point: the bafe of the upper mandible is ftrengthened with a white narrow prominent rim full of very minute holes : the bill is of two colors, the part next the head of a bluifh grey, the lower part red: in the former is one tranfverfe groove or furrow, in the latter three: the fize of the bills of thefe birds vary: thofe of Prieftholm Ifle are one inch and three quarters long; and the bafe of the upper mandible one inch broad: but in the birds from the Ifle of Man thefe proportions are much lefs.
Nostrils.
The noftrils are very long and narrow; commence
mence at the above-mentioned rim, terminate at the firft groove, and run parallel with the lower edge of the bill.
The irides are grey, and the edges of the eye-lids Eyes. of a fine crimfon: on the upper eye-lid is a fingular callous fubltance, grey, and of a triangular form : on the lower is another of an oblong form: the crown of the head, whole upper part of the body, tail, and covert feathers of the wings are black; but in fome the feathers of the back are tinged with brown: the quil-feathers are of a dufky hue.

The cheeks are white, and fo full of feathers as to make the head appear very large and almoft round: the chin of the fame color; bounded on each fide by a broad bed of grey: from the corner of each eye is a fmall feparation of the feathers terminating at the back of the head. The neck is encircled with a broad collar of black: but the whole lower part of the body as far as is under water is white, which is a circumftance in common with moft of this genus.

Tail black, compofed of fixteen feathers: legs fmall, of an orange color, and placed fo far behind as to difqualify it from ftanding, except quite erect: refting not only on the foot, but the whole length of the leg: this circumftance attends every one of the genus, but not remarked by any naturalift, except Wormius, who has figured the Penguin, a bird of this genus, with great propriety: this makes the
rife of the Puffin from the ground very difficult, and it meets with many falls before it gets on wing; but when that is effected, few birds fly longer or ftronger.

Thefe birds frequent the coafts of feveral parts of Great Britain and Ireland; but no place in greater numbers than Prieftbolm I/le*, where their flocks may be compared to fwarms of bees for multitude. Thefe are birds of paffage; refort there annually about the fifth or tenth of April, quit the place (almoft to a bird) and return twice or thrice before they fettle to burrow and prepare for ovation and incubation. They begin to burrow the firft week in May; but fome few fave themfelves that trouble, and dinodge the rabbets from their holes, and take poffeffion of them till their return from the inle. Thofe which form their own burrows, are at that time fo intent on the work as to fuffer themfelves to be taken by the hand. This tafk falls chielly to the fhare of the males, for on diffection ten out of twelve proved of that fex. The males alfo affift in incubation; for on diffection feveral males were found fitting.

The firft young are hatched the beginning of $\tilde{j} u l y$, the old ones fhew vaft affection towards them; and feem totally infenfible of danger on the breeding feafon. If a parent is taken at that time, and furpended by the wings, it will in a fort of defpair

[^9]treat itfelf moft cruelly by biting every part it can reach; and the moment it is loofed, will never offer to efcape, but inftantly refort to its unfledged young: but this affection ceafes at the ftated time of migration, which is moft punctually about the eleventh of Auguft, when they leave fuch young as cannot fly, to the mercy of the Peregrine Falcon, who watches the mouths of the houfe for the appearance of the little deferted puffins which forced by hunger are compelled to leave their. burrows. The Revd. Mr. Hugh Davies, of Beaumaris, to whom I am indebted for much of this account, informed me that on the twenty-third of Augujt, fo entire was the migration, that neither Puffin, Ra-zor-Bill, Guillemot, or Tern was to be feen there.

I muft add, that they lay only one egg, which differ much in form; fome have one end very acute; others have both extremely obtufe; all are white.

Their flefh is exceffive rank, as they feed on fea weeds and fifh, efpecially Sprats : but when pickled and preferved with fpices, are admired by thofe who love high eating. Dr. Caius tells us, that in his days the church allowed them in lent, inttead of fifh: he alfo acquaints us, that they were taken by means of ferrets, as we do rabbits: at prefent they are either dug out, or drawn from their burrows by a hooked ftick: they bite extremely hard, and keep fuch fait hold on whatoever they faften, as not to be eafily difengaged. Their noife, whers Vol, II. M m
taken
taken, is very difagreeable; being like the efforts of a dumb perfon to fpeak.

Note of Sea Fowe.

The notes of all the fea birds are extremely harfh or inharmonious: we have often refted under the rocks attentive to the various founds above our heads, which, mixed with the folemn roar of the waves fwelling into and retiring from the vaft caverns beneath, have produced a fine effect. The Sharp voice of the fea gulls, the frequent chatter of the guillemots, the loud note of the auks, the fcream of the herons, together with the hoarfe, deep, periodical croak of the corvorants, which ferves as a bafe to the reft; has often furnifhed us with a concert, which, joined with the wild fcenery that furrounded us, afforded, in a high degree, that fpecies of pleafure which arifes from the novelty, and we may fay gloomy grandeur of the entertainment.

The winter refidence of this genus, and that of the guillemot, is but imperfectly known: it is probable they live at fea, in fome more temperate climate, remote from land; forming thofe multitudes of birds that navigators obferve in many parts of the ocean: they are always found there at certain feafons, retiring only at breeding time : repairing to the northern latitudes; and during that period are found as near the Pole as navigators have penetrated.

During winter Razor-bills and Puffins frequent the coaft of Andalufia, but do not breed there.

THE bird our defcription was made from was taken in Lancafhire; its bulk was not fuperior to that of a blackbird. The bill convex, fhort, thick, and ftrong; its color black. That of the crown of the head, the hind part of the neck, the back, and the tail black; the wings the fame color; but the tips of the leffer quil-feathers white: the inner coverts of the wings grey: the cheeks, throat, and whole under fide of the body white: the fcapular feathers black and white: the legs and feet covered with dirty greenifh white fcales; the webs black.

Mr. Edwards has figured a bird that varies very little from this: and has added another, which he imagines differs only in fex: in that, the head and neck are wholly black; and the inner coverts of the

$$
\mathrm{Mm}_{2} \quad \text { wings }
$$

Rotges Martin's Spitzberg. 85. Faun. Suec. Sp. 142.
Little black and white Diver. I/andis Halkioen, Havdirdell. Norvegis Soe Konge, Soeren Jakob, Perdrikker, Perfuper, Boefiær, Borrefiær, Hys Thomas. Feroenfibus Fulkop. Groenlandis Akpaliarfok. Brunnich, 106.
Gunner tab. 6.
Br. Zool. 137.

Descripg
wings barred with a dirty white. We met with the laft in the cabinet of Doctor David Skene at Aberdeen; it was thot on the coaft north of Slains in the fpring of the year.

BILL flender, ftrong, pointed. The upper mandible nightly bending towards the end. Bafe covered with foft fhort feathers.
NOSTRILS lodged in a hollow near the bafe. TONGUE fender, almoft the length of the bill. TOES, no back toe.

Guillem, Guillemot, Skout, Kiddaw, Sea-hen. Wil. orn. 324.

Raii fyn. av. 120.
The Lavy. Martin's roy. St. Kilda, 32.
Edw. av. 359. fig. I.
Uria, le Guillemot. Brifon av. VI. 70. Tab. 6. fig. I.
Lommia. N. Com. Petr. IV. 41 个.

Colymbus Troile. Lin. Jyjf. 234.FOoL is 动 220.

Faun. Suec. $\sqrt{P}$. 149.
IJandis \& Norvegis Lomvie, Langivie, Lomrifvie, Storfugl. Brunnich, 108.
Sea-Taube, or Groenlandifcher Taucher. Frifch, II. 185.

Br. Zool. 138.

THIS fpecies weighs twenty-four ounces : Descrie. the length feventeen inches: the breadth twenty-feven and a half: the bill is three inches long; black, ftrait, and fharp pointed: near the end of the lower mandible is a fmall procefs; the infide of the mouth yellow : the feathers on the upper part of the bill are fhort, and foft like velvet: from the eye to the hind part of the head is a fmall divifion of the feathers. The head, neck, back, wings, and tail are of a deep moufe color; Mm3 the
the tips of the leffer quil-feathers white: the whole under part of the body is of a pure white: the fides under the wings marked with dufky lines. Immediately above the thighs are fome long feathers that curl over them. The legs duiky.

Thefe birds are found in amazing numbers on the high cliffs on feveral of our coafts, and appear at the fame time as the auk. They are very fimple birds; for notwithftanding they are fhot at, and fee their companions killed by them, they will not quit the rock. Like the auk, they lay on-
Eqg. ly one egg, which is very large; fome are of a fine pale blue, others white, fpotted, or moft elegantly ftreaked with lines croffing each other in all directions. The Rev. Mr. Lowo of Birfa affures me, that they continue about the Orknies the whole winter.

## 235. Lesser. Uria Svarbag. Ifandis Stutnefur, Svartbakur. <br> Ringuia. - Brunnich, No. 11 e. Scopoli, No. 103. Br. Zoal. 138.

Descrip. THE weight is nineteen ounces: the length fixteen inches: the breadth twenty-fix. The bill two inches and a half long, fhaped like the Guillemot's, but weaker. The top of the head, the whole upper part of the body, wings and tail are of a darker color than the former: the cheeks, throat,

## LESSER GUILLEMOT.



SPOTTED GUILLEMOT.
Nr: 236.

throat, and all the lower fide of the body are white : from the corner of the eye is a dufky ftroke, pointing to the hind part of the head: the tips of the fecondary feathers white: the legs are black: the tail very fhort, and confifts of twelve feathers.

Thefe birds frequent the Welch coafts in the winter time; but that very rarely: where they breed is unknown to us; having never obferved them on the rocks among the congenerous birds. Thefe and the black-billed Auks haunt the Firtb of Fortb during winter in flocks innumerable, in purfuit of fprats. They are called there Morrots: they all retire before fpring.

Greenland-dove, or Seaturtle. Wil. orn. 326.
Raii Syn. av. 121.
Ray's itin. 183, 192.
Feifte. Gunner. tab. 4 .
Turtur maritimus infula Bafs. Sib. bift. Fife, 46.
The Scraber. Martin's voy. St. Kilda. 32.
Cajour, Pynan. N. Com. Petr. IV. 418.

Uria minor nigra, le petit

Guillemot noir, Brifon av. 236. Black. VI. 76.

Colymbus Grylle. Lin. Syf. 220.

Faun. Suec. $\int p .148$.
IJandis Teifta. Norvegis Teiite. Groenlandis Sarpak. Brunnich, 113. Groenlandifche Taube. Frijch, II. 185. Br. Zool. 138.

THE length of this fpecies is fourteen inch- Descrif. es: the breadth twenty-two: the bill is an inch and a half long; ftrait, flender, and black: the infide of the mouth red: on each wing is a

$$
\mathrm{Mm}_{4} \quad \text { large }
$$

large bed of white, which in young birds is fpotted: the tips of the leffer quil-feathers, and the inner coverts of the wings, are white: except thefe, the whole plumage is black. In winter it is faid to change to white: and a variety fpotted with black and white ${ }^{*}$ is not uncommon in Scotland. The tail confifts of twelve feathers: the legs are red.

Thefe birds are found on the Bafs ile in Scotland; in the ille of St. Kilda; and, as Mr. Ray imagines, in the Farn ilands off the coaft of Northumberland; we have alfo feen it on the rocks of Llendidno in Caernarvonflire. Except at breeding time, it keeps always at fea; and is very difficult to be fhot, diving at the flafh of the pan. The Welch call this bird Cofgon Longwer, or the failor's hatred, from a notion that its appearance forebodes a ftorm. It vifits St. Kilda's in March: makes its neft far under ground ; and lays a grey egg; or, as Steller fays, whitifh fported with ruft, and fpeckled with afh color.

[^10]

BILL ftrong, frait, pointed. Upper mandible

XLIT. DIVER. longeft; edges of each bending in. NOSTRILS linear. TONGUE pointed, long, ferrated near the bafe. LEGS thin and flat. TOES, exterior the longeft : back toe joined to the interior by a fmall membrane. TAIL fhort, confifting of twenty feathers.

Clunus's. Wil. orn. 342. Raii Syn. av. 125. Mergus maximus Farrenfis, five Arcticus. Clufii exot. 102.

Colymbus maximus ftellatus noftras. Sib. bift. Scot. 20. Tab. 15.
Le grand Plongeon tachetè.

Brifon av. VI. 120. Tab. 237. Nor'thII fig. I. ERN.
Colymbus glacialis. Lin. Syf. 221.

Norvegis Brufen. Groenlandis Tiulik. Brunnich, orn. 134.

Groffe Halb-Ente, MeerNœring. Frijch, II. 185. A。 Br. Zool. 139.

THE length of this fpecies is three feet five Descrip'. inches: its breadth four feet eight: the bill to the corners of the mouth four inches long; black and ftrongly made. The head and neck are of a deep black: the hind part of the latter is marked with a large femilunar white band: immediately under the throat is another; both marked with black oblong ftrokes pointing down: the lower part of the neck is of a deep black, gloffed with
with a rich purple: the whole under fide of the body is white : the fides of the breaft marked with black lines: the back, coverts of the wings, and fcapulars, are black, marked with white fpots: thofe on the fcapulars are very large, and of a fquare fhape; two at the end of each feather.

The tail is very fhort, and almoft concealed by the coverts, which are dufky fpotted with white: the legs are black. Thefe birds inhabit the northern parts of this inand, live chiefly at fea, and feed on fifh: we do not know whether they breed with us, as they do in Norway; which has many birds in common with Scotland. In $n_{\text {th }}$ the laft it is called Mur-buachaill, or the Herdjman of the fea, from its being fo much in that element.
 Immer. Brunnich, No. 129.

THIS fpecies inhabits the feas about the Orknies; but in fevere winters vifits the fouthern parts of Great Britain. It lives as much at fea as the former; fo that credulity believed that it never quitted the water, and that it hatched its young in
a hole
a hole formed by nature under the wing for that end.

It is fuperior in fize to a goofe. The head dufky: the back, coverts of the wings, and tail clouded with lighter and darker fhades of the fame. Primaries and tail black: under fide of the neck fpotted with dufky: the breaft and belly filvery: legs black.

The fkins of the birds of this genus are uncommonly tough; and in the forthern countries have been ufed as leather.

Greateft fpeckled Diver, or Le petit Plongeon. Brifon Loon. Wil. orn. 341. av. VI. 108. Tab. 10. fg.2. Raii Syn. av. 125.
Colymbus caudatus ftellatus.
N. Com. Petr. IV. $424^{2}$ Mergus Stellatus, Danis SoeHane. Brunnich, 130. Br. Zool. 139.

THIS fpecies weighs two pounds and a half: its Descrif. length twenty-feven inches: its breadth three feet nine. The bill three inches long, and turns a little upwards; the mandibles, when clofed at the points, do not touch at the fides. The head is of a dulky grey, marked with numerous white fpots: the hind part of the neck an uniform grey: the whole upper part of the body, and greater coverts of the wings dufky, fpeckled with white: the leffer coverts dunky, and plain. The tail confifts of about twenty black feathers; in fome tipt with white.
white. The cheeks and whole under fide of the body of a fine glofly white: and the feathers, as in all this genus, which refides almoft perpetually on the water, are exceffively thick, and clofe fet: the legs are dufky.

Thefe birds frequent our feas, lakes and rivers in the winter. On the Tbames they are called Лprat loons, for they attend that filh during its continuance in the river. They are fubject to vary in the difpofition and form of their fpots and colors: fome having their necks furrounded with a fpeckled ring: in fome the fpots are round, in others oblong.

| O. Red | Edw.av. | ifon av. |
| :---: | :---: | :---: |
| hroated. | Gunner. Toab. 2. f. | fig. I. . |
|  | Colymbus feptentrionalis. | Iflandis \& Norvegis Loom |
|  | Lin. fyjf. 220. | Lumme, Danis |
|  | Le Plongeon a gorge rouge. | Brunnich, 132. |
|  |  | ol. |

THiIS fpecies breeds in the northern parts of Scotland, on the borders of the lakes: but migrates fouthward during wirter. It lays two eggs. The fexes do not differ in colors; and are a diftinct kind from the black throated, the Lumme of the Norvegions. Its fhape is more elegant than that of the others. The weight is three pounds :
Descrip. the length, to the tail end, two feet; to that of the toes, two feet four inches: the breadth three feet


BLACK THROATED DIVER. NO $2 \mathscr{1}$.

feet five inches. The head fmall and taper: the bill ftrait, and lefs frong: the fize about a fourth lefs than the preceding. The head and chin are of a fine uniform grey: the hind part of the neck marked with dufky and white lines, pointing downwards: the throat is of a dull red : the whole upper part of the body, tail and wings of a deep grey almoft dufky; but the coverts of the wings, and the back, are marked with a few white fpots: the under fide of the body white: the legs dufky.

Lumme. Worm. Muf. Brun- Colymbus arcticus. Lin, Syf. nich, No. 133. 221. Faun. Suec. No. Northern Doucker. Wil. orn. Speckled Diver. Edrw. 146. 343. Raii fyn. av. 125.

ASPECIES fomewhat larger than the laft. Bill black: front black: hind part of the head and neck cinereous : fides of the neck marked with black and white lines pointing downwards: fore part of a glofly variable black, purple and green.

Back, fcapulars, and coverts of wings black, marked (the two firft with fquare) the laft with round fpots of white: quil feathers duiky: breaft and belly white. Tail fhort and black: legs partly dufky, partly reddif.
XLIII. BILL ftrong, ftrait, bending near the end; an angular prominency on the lower mandible.
NOSTRILS linear.
TONGUE a little cloven.
BODY light, wings large.
LEG and back toe fmall, naked above knee.

| 242. Black | Wil. orn. 3 | Faun. Suec. Ap. 155. |
| :---: | :---: | :---: |
| backed. | Raii Jyn. ave 127. | Danis Blaae maage, No |
|  | Le Goiland noir. Brifon a VI. 158. | Svartbag, Havmaafe. Brun nich, |
|  | Larus marinus. Lin. | Br. Zool. 140. |

Descrip.

THE weight of this fpecies is near five pounds: the length twenty-nine inche's: the breadth five feet nine. The bill is very ftrong and thick, and almoft four inches long; the color a pale yellow; but the lower mandible is marked with a red fpot, with a black one in the middle. The irides yellow: the edges of the eye-lids orange color: the head, neck, whole under fide, tail and lower part of the back, are white: the upper part of the back, and wings, are black: the quilfeathers tipt with white: the legs of a pale flefh color.

This kind inhabits our coafts in fmall numbers; and breeds in the higheft cliffs. It feeds not only on fin: but like the Raven, very greedily devours

Class II. S K U A G U L L:
carrion. Its egg is very blunt at each end; of a dufky olive color, quite black at the greater end; and the reft of it thinly marked with dufky fpots.

I have feen on the coalt of Anglefea, a bird that agrees in all refpects with this except in fize, in wanting the black fpot on the bill, and in the color of the legs, which in this are of a bright yellow : the extent of wings is only four feet five: the length only twenty-two inches : the weight one pound and a half. This fpecies, or perhaps variety (for I dare not affert which) rambles far from the fea, and has been fhot at Bulfrode, ing Middlejex.

Our Cataraiza, I fuppofe the Cornifs Gannet. Wil. orn. 348.

Raii fyn. av. 128.
Cataractes. Sibb. Scot. tab. 14.

Sea Eagle. Sibb. bif. Fife. 46.

Le Stercoraire rayè. Brifon Brown and ferruginous Gull, av. VI. 152 .
Pontopp. Norw. II. 96.

Skua Hoirei. Clufii Exot. 368 , 243. SKひA. 369.

Larus Cataractes. Lin. Jyfo. 226.

Skua. Brunnich, ornith. 33.
Feroenfibus Skue. Iflandis Skumr. Norvegis Kav-Oern. Brunnich, $125^{\circ}$ Br. Zool. 140.

T
HE length of this fingular Gull is two feet: Descrif. the extent four feet and a half: the weight three pounds : the bill two inches one fourth long, very much hooked at the end, and very fharp: the upper mandible covered more than half way
with
with a black cere or fkin as in the hawk kind : the noftrils placed near the bend, and are pervious.

The feathers on the head, neck, back, fcapulars and coverts of the wings are of a deep brown, marked with ruft color, (brighteft in the male). The fhafts of the primaries are white: the end and exterior fide of the firft is deep brown; the ends only of the reft brown: the lower parts on both fides being white; the fecondaries marked in like manner; forming a great bar of white. The breaft, belly and vent ferruginous, tinged with afh color. The tail when fpread is circular, of a deep brown, white at the root; and with fhafts of the fame color.

The legs are covered with great black fcales: the talons black, ftrong and crooked; the interior remarkably fo.
History.
This bird inhabits Norway, the Ferroe ines, Sbetland, and the noted rock Foula, a little weft of them. It is alfo a native of the South fea. It is the moft formidable Gull, its prey being not only fifh, but what is wonderful in a web-footed bird, all the leffer fort of water fowl, fuch as teal, \&cc. Mr. Scbroter, a Surgeon in the Ferroe inles, relates that it likewife preys on ducks, poultry, and even young lambs *. It has all the fiercenefs of the eagle in defending its young; when the inhabitants of thofe inlands vifit the neft, it attacks them with

[^11]great force, fo that they hold a knife erect over their heads, on which the Skua will transfix itfelf in its fall on the invaders.

The Rev. Mr. Lorv, minifter of Birfa, in Orkney, from whom an accurate hiftory of thofe iflands, and of Shetland may be expected, confirmed to me part of the above. On approaching the quarters of thefe birds, they attacked him and his company with moft violent blows; and intimidated a bold dog of Mr. Lowo's in fuch a manner, as to drive him for protection to his mafter. The natives are ofen very rudely treated by them, while they are attending their fheep on the hills; and are obliged to guard their heads by holding up their fticks, on which the birds often kill themfelves. In Foula it is a priveleged bird, becaufe it defends the flocks from the eagle, which it beats and purfues with great fury; fo that even that rapacious bird feldom ventures near its quarters. The natives of Fould on this account lay a fine on any perfon who deftroys one: they deny that it ever injures their flocks or poultry, but imagine it preys on the dung of the Arstic, and other larger gulls, which it perfecutes till they mute for fear.

Mr. Ray and Mr. Smitb* fuppofe this to be the Cornish Gonnet; but in our account of that bird we fhall fhew that it is a different fpecies. Mr. Macouly $\dagger$ mentions a gull that makes great ha-

> * Hif. Kerry.
> + Hift. St. Kilda, p. ${ }_{15}$ 8,

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Nn
roke
voke among the eggs and fea fowl of St. Kilda; it is there called Tuliac: his defcription fuits that of the berring Gull; but we fufpect he confounds thefe two kinds, and has transferred the manners of this fpecies to the latter.

Linneus involves two fpecies in the article Larus CataraEta; this, and the arctic bird of Mr. Edwards, birds of very different characters. M. Briffon does not feem perfectly acquainted with this bird; for the fynonym of the Skua, given by him to his fifth gull (our brown and white gull) belongs to this fpecies; and his print of the Stercoraire rayé, p. 152. tab 13. toin. VI. to which he has given the fynonym of Mr. Edwards's arctic bird, feems to be the very fame which we have here defcribed.
244. Black Cepphus. Aldr. av. III. 3s. The Cepphus. Pbil. Tranfaci. TOED.

Wil. orn. 351 . Raii Jyn. av. 129.

Vol. 52. 135.
Catharacta Cepphus, Strandhoeg. Brunnich, ornith. 126.

Descrip. HIS fpecies weighs eleven ounces: its length is fifteen inches: its breadth thirty-nine: the bill is one inch and a half long, the upper part covered with a brown cere: the noftrils like thofe of the former ; the end black and crooked. The feathers of the forehead come pretty low on the bill : the head and neck are of a dirty white: the hind

## WINTER GULL.


hind part of the latter plain, the reft marked with oblong dufky fpots.

The breaft and belly are white, croffed with numercus dufky and yellowifh lines: the feathers on the fides and the vent, are barred tranfverfely with black and white: the back, fcapulars, coverts of the wings and tail, are black, beautifully edged with white or pale ruft color: the fhafts and tips of the quil-feathers are white: the exterior web, and upper half of the interior web black, but the lower part of the latter white : the tail confifts of twelve black feathers tipt with white; the two middle of which, are near an inch longer than the others : the fhafts are white; and the exterior webs of the outmoft feather is fpotted with ruft color. The legs are of a bluifh lead color: the lower part of the toes and webs black.

A bird of this kind was taken near Oxford, and communicated to the Royal Society by Dr. Lyjons of Gloucefter.

The Struntjagger, or Dung- Larus Parafiticus. Lin. Jyft. 24j. Arctic hunter. Marten's Spitzberg 87.
The Arctic Bird. Edru. av. 148. 149.
226. Swartlaffe, Labben, Elof. Faun Suec. Sp. 156. Brunnich, 127.

THESE birds are very common in the Hebridies. I faw numbers in Jura, Ilay and Rum, Nn2 where
where they breed in the heath; if difturbed they fly about like the lapwing, but foon alight. They are alfo found in the Orknies, where they appear in May, and retire in Auguft. It is alfo found on the coaft of Yorkbire, where it is known by the name of Feafer. All writers that mention it agree, that it has the property of purfuing the leffer gulls fo long, that they mute for fear, and that it catches up and devours their excrement before they drop into the water; from which the name. Linnous wittily calls it the Parafite, alluding to its fordid life.

Descrip.

Maee。

The length of this fpecies is twenty-one inches: the bill is dufky, about an inch and a half long, pretty much hooked at the end, but the ftrait part is covered with a fort of cere. The noftrils are narrow, and placed near the end, like the former. In the male, the crown of the head is black: the back, wings, and tail dufky; but the lower part of the inner webs of the quil-feathers white: the hind part of the neck, and whole underfide of the body white : the tail confifts of twelve feathers, the two middlemoft near four inches longer than the others: the legs black, fmall, and fcaly.
Femare. The female is entirely brown; but of a much paler color below than above: the feathers in the middle of the tail only two inches longer than the others. The fpecimen from which Mr. Edwards toke the figure of his female Arctic bird, had loft thofe

thofe long feathers, fo he has omitted them in the print.

Linnous has feparated this from its mate, his Larus parafiticus, and made it a fynonym to his $L$. Cataractes, a bird as different from this as any other: of the whole genus.

Burgermeifter Martin's spitzberg. $84^{\circ}$
Herring Gull. Wil. orn. 345 . Larus cinereus maximus. Raii Syn av 127.
Le Goiland gris. Brifon av. VI. 162.

Larus fufcus. Lin. fyet. 125. Faun. Suec. Sp. 154.
Danis Silde-Maage. Iflandis
Veydebjalla, Brunnich, 142. Groffe Staff Moeur. Frifch, II. 218. Br. Zool. 141.

THIS gull weighs ùpwards of thirty ounces: the length twenty-three inches; its breadth fiftytwo. The bill yellow, and the lower mandible marked with an orange colored fpot: the irides frawe color: the edges of the eye-lids red: the head, neck, and tail white: the back, and coverts of the wings afh colored: the upper part of the five firft quil-feathers are black, marked with a white fpot near their end: the legs of a pale flefh color. Thefe birds breed on the ledges of rocks that hang over the fea: they make a large neft of dead grafs, and lay three eggs of a dirty white, fpotted with black. The young are afh colored, fpotted with brown; they do not come to their proper color the firf year: this is common to other gulls; which has greatly

$$
\mathrm{N} \mathrm{n}_{3}
$$ multiplied

245. Heat RING.
multiplied the fpecies among authors, who are inattentive to thefe particulars. This gull is a great devourer of fifh, efpecially of that from which it takes its name: it is a conftant attendent on the nets, and fo bold as to feize its prey before the fifhermens faces.
(A.) Great grey Gull, the Cor- Larus Nævius. Lin. fyyt. 225. nifh Wagel. Wil. orn. 349. Danis Graee-Maage. IJandis Raii fyn. av. 130. Kablabrinkar. Brunnich, Le Goiland variè, ou le Gri150. fard. Brijlon av. VI. 167. Brown and White Gull. Br. tab. 15 .

Zool. II. 422.

Descrip. ${ }^{\text {a }}$ HESE birds vary much in their fize; one we examined weighed three pounds feven ounces: the length was two feet two inches: the breadth five feet fix: others again did not weigh two pounds and a half: the irides are dufky: the bill black, and near three inches long. The whole plumage of the head and body, above and below, is a mixture of white, afh color, and brown: the laft color occupies the middle of each feather; and in fome birds is pale, in others dark: the quil-feathers black: the lower part of the tail is mottled with black and white; towards the end is a brown black bar, and the tips are white: the legs are of a dirty white.

Some have fuppofed this to be the young of the preceding
preceding fpecies, which (as well as the reft of the gull tribe) fcarce ever attains its true colors till after the firft year: but it mult be obferved, that the firft colors of the irides, of the quil-feathers, and of the tail, are in all birds permanent; thefe, as we have remarked, differ in each of thefe gulls fo greatly, as ever to preferve unerring notes of diftinction.

This fpecies is likewife called by fome the Dung Hunter; for the fame reafon as the laft is fyled fo.

Winter Mew, or Coddy Moddy. Wil. orn. 350 . Raii fyn. av. 130.

Gavia Hyberna, le Mouette d'hiver. Brifon av. VI. 189.

Br. Zool. 142.

THIS weighs from fourteen to feventeen ounDescrip.
ces: the length eighteen inches; the breadth three feet nine. The irides are hazel : the bill two inches long, but the flendereft of any gull: it is black at the tip, whitifh towards the bafe. The crown of the head, and hind part, and fides of the neck, are white, marked with oblong dufky fpots; the forehead, throat, middle of the breaft, belly, and rump, are white; the back and fcapulars are of a pale grey; the laft fpotted with brown; the coverts of the wings are of a pale brown, edged Nn 4 with
with white ; the firf quil-feather is black; the fucceeding are tipt with white: the tail is white, croffed near the end with a black bar; the legs of a dirty bluifh white.

This kind frequents, during winter, the moift meadows in the inland parts of England, remote from the fea. The gelatinous fubftance, known by the name of Star Shot, or Star Gelly, owes its origin to this bird, or fome of the kind; being nothing but the half digefted remains of earth-worms, on which thefe birds feed, and often difcharge from their ftomachs*.

Linncus, p. 224. makes this fpecies fynonymous with the Larus tridaClylus or Tarrock; but as we have had opportunity of examining feveral of each fpecies, and find in all thofe ftrong diftinctions remarked in our defcriptions, we muft decline affenting to the opinion of that eminent naturalift.
249. ConMON.

Galedor, Crocala, Galetra. La Mouette cendrée. Brifers Aldr. av. III: 34. av. VI. 175.tab. 16. fig. 1. Common Sea Mall. Wil. orin. Gabbiano minore. Zinan. 115 . 345. Larus canus. Lin. $\int y / t_{0}$ 224. Common Sea Mall, or Mew. Br. Zocl. 142. Scopoli, No. Raii Jin. av. 127. 104.

HIS is the moft numerous of the genus. It breeds on the ledges of the cliffs that im-

* Vide Morton's Nat. Hif. Nowthampt. p. 353.
pend


## KIT'TIWAKE



COMMON GULL.
NO 249.

.
pend over the fea: in winter they are found in vaft flocks on all our fhores, They differ a little in Descrip. fize; one we examined weighed twelve ounces and a half: its length was feventeen inches: its breadth thirty-fix : the bill yellow: the head, neck, tail, and whole under fide of the body, a pure white: the back, and coverts of the wings, a pale grey: near the end of the greater quil-feathers was a black fpot: the legs a dull white, tinged with green.

Larus Riffa. Lin. fyf. 224. Ritfa I/andis, incolis Chrific anfoe, Lille Solvet, Rotter-
en. Brunnich, No. 140. 250 . KittiKittiwake. Sibbald's bif. wake.

THE length of this fpecies is fourteen inches: the extent three feet two. When arrived at full age, the head, neck, belly, and tail are of a fnowy whitenefs; behind each ear is fometimes a dufky fpot: the back and wings grey: the exterior edge of the firft quil-feather, and tips of the four or five next, are black: the bill yellow, tinged with green; infide of the mouth orange: legs dufky, with only a knob inftead of the back toe.

It inhabits the romantic cliffs of Flamboroughbead (where it is called Petrel) the Bafs IJle, the vait rocks near the Caftle of Slains, in the county of Aberdeen, and Prieftbolm Ifle.

The young of thefe birds are a favorite difh
in North Britain, being ferved up roafted, a little before dinner, in order to provoke the appetite; but, from their rank tafte and fmell, feem much more likely to produce a contrary effect.

| $\begin{aligned} & 25 \mathrm{I} . \mathrm{T}_{\mathrm{AR}}- \\ & \text { ROCK. } \end{aligned}$ | La Mouette cendrèe. Brifon a.v. 169. <br> Gavia cinerea alia. Aldr. av. III. 35 . <br> Wil. orn. 346 . <br> Raii Jin. av. 128. | Larus tridactylus. Lin. Syf. 224. <br> Faitn. Suec. 157. Pp. <br> La Mouette cendrèe tachetèe. Brifon av. VI. 185. tab. 17. fig. 2. |
| :---: | :---: | :---: |

Descrip. HE length is fourteen inches; the breadth three feet: the weight only feven ounces. The bill is black, fhort, thick, and ftrong; the head large: the color of that, the throat, neck, and whole under fide are white: near each ear, and under the throat, is a black fpot: on the hind part of the neck is a black crefcent, the horns pointing to the throat.

The back and fcapulars are of a bluifh grey: the leffer coverts of the wings dufky, edged with grey; the larger next to them of the fame color; the reft grey: the exterior fides, and ends of the four firft quil-feathers are black: the tips of the two next black; all the reft wholly white: the ten middle feathers of the tail white, tipt with black; the two outmoft quite white: the legs of a dufky afh color.

In lieu of the back toe, it has only a fmall protuberance.

This fpecies breeds on Prieftbolme IRe, alfo among the former in Scotland. I muft retract my opinion of its being the young of that fpecies.

Cepphus Turneri. Gefner av. Puit. Fuller's Brit. Wortbies. 249. Larus cinereus tertius, Aldr. La Mouette rieufe a pattes a.v. III. $35 . \quad$ rouges. Brifon av. VI. 196. Pewit, or Black Cap, Sea Gabbiano cinerizio col roftro, Crow, Mire Crow. Wil. e col li piedi roffi. Zinan. orn. 347. 115.
Raii fyn. av. 128. itin. 217. Larus ridibundus. Lin. fyf. Pewit. Plott's bif. Staff. 231. 225.

Br. Zool. 143.

THESE birds breed in vaft numbers in the illands of certain pools in the county of Siafford; and, as Dr. Fuller tells us, in another on the $E \iint e x$ thores; alfo in the Fens of Lincoln/bire. They are birds of paffage ; refort there in the fpring; and after the breeding feafon difperfe to the fea coafts : they make their neft on the ground, with rufhes, dead grafs, and the like; and lay three eggs of a dirty olive color, marked with black. The young were formerly highly efteemed, and numbers were annually taken and fattened for the table. Plott gives a marvellous account of their attachment to the lord of the foil they inhabit; infomuch, that
on his death, they never fail to fhift their quarters for a certain time.

Wbitelock, in his annals, mentions a piece of ground near Portfmouth, which produced to the owner forty pounds a year by the fale of Perwits, or this fpecies of gull. Thefe are the See-gulles that in old times were admitted to the noblemens tables*.

The notes of thefe gulls diftinguifh them from Descrip. any others; being like a hoarfe laugh. Their weight is about ten ounces: their length fifteen inches; their breadth thirty-feven: their irides are of a bright hazel : the edges of the eye-lids of a fine fcarlet; and on each, above and below, is a fpot of white feathers. Their bills and legs are of a fanguine red: the heads and throats black or durky : the neck, and all the under fide of the body, and the tail, a pure white: back and wings afh colored: tip, and exterior edge of the firft quil-feather black; the reft of that feather white; the next to that tipt with black, and marked with the fame on the inner web.

A Variety, La Grande Mouette blanche. Bclon. 170.

Wil. orn. 348. Raii 今yn. av. Larus canus. Scopoli, No. 104.

THIS was taken in a trap near my houfe, $\mathfrak{F a}$ nuary 25 th, 1772 , and feemed oniy a varie-
ty of the former. It differed in having the edges of the eye-lids covered with white foft feathers. The forepart of the head white; the fpace round the eyes dufky: from the corner of each eye is a broad dufky bar, furrounding the hind part of the head; behind that is another reaching from ear to ear: the ends, interior and exterior edges of the three firt quil-feathers black; the ends and interior fides only of the two next black, but the fhafts and middle part white ; the tips of the two next white; beneath a black bar: the reft, as well as the fecondaries, afh color.

In all other refpects it refembled the common pewit gull. The fat was of a deep orange color.

> The brown Tern. Wil. orn. Sterna nigra. Lin, fyf. 227. 253. Browna 352. Faun. Suec. Pp. $^{1} 59$. Sterna fufca. Raii fyno arv. Br. Zool. 143.
> 131.

$\mathrm{M}^{1}$R. Ray has left us the following obfcure account of this bird; communicated to him by Mr. Fobnfon, a Yorkfire gentleman. "The whole Descrip. " under fide is white; the upper brown: the " wings partly brown, partly afh color: the head " black : the tail not forked: there birds fly in "companies."

Froms

From the defcription, we fufpect this bird to be the young of the greater Tern, that had not yet attained its proper colors, nor the long feathers of the tail, which it does not acquire till mature age.

## GREAT \& LESSER TERNS.


BILL ftrait, flender, pointed. NOSTRILS linear. TONGUE flender and harp. WING®S very long.
TAIL forked. TOES, a fmall back toe.

Sterna (Stirn, Spyrer, Schnir- The Kirmew. Marten's Spitz- 254. Great.
ring) Gefner av. 586.
Aldr. av. III. 35. IJandis Kria. Norvegis Tenne, The Sea Swallow. Wil. orn. Tende, Tendelobe, Sand$35^{2}$.
Raii fyn. av. 13 I .
Sterna major, la grande Hirondelle de mer. Brifon av. VI. 203. tab. 19. fig. 1. Sterna hirundo. Lin. fyt. 227. Tarna. Foun. Suec. /p. 159.
berg. 92.
Ifandis Kria. Norvegis Tenne,
Tende, Tendelobe, SandTolle, Sand-Tærrne. Danis Tærne. Bornbolmis Kirre, Krop-Kirre. Brunnich, 151. Grauer fifcher. Kram. $345^{\circ}$ Schwartzplattige Schwalben Moewe. Frifch, II. 21 g. Br. Zool. 144. Makauka. Scopoli, No. 3.

THIS kind weighs four ounces, one-quarter :
the length is fourteen inches; the breadth thirty: the bill and feet are of a fine crimfon; the former tipt with black, ftrait, flender, and fharp pointed: the crown, and hind part of the head, black: the throat, and whole under fide of the

* A name thefe birds are known by in the North of Eng: land; and which we fubftitute infead of the old compound one of Sea Sruallorv; which was given them on account of their forked tails.

bodys

body, white: the upper part, and the coverts of the wings, a fine pale grey: the tail confifts of twelve feathers; the exterior edges of the three outmoft are grey, the reft white: the exterior, on each fide, is two inches longer than the others: in Alying, the bird frequently clofes them together, fo as to make them appear one flender feather.

Thefe birds frequent the fea fhores, banks of lakes and rivers: they feed on fmail finh, and water infects; hovering over the water, and fuddenly darting into it, catch up their prey. They breed among fmall tufts of rufhes; and lay three or four eggs, of a dull olive color, fpotted with black. All the birds of this genus are very clamorous.

25j. Lesser. Larus pifator (Fifcherlin, La petite Hirondelle de mer. Fel.) Gefner $a \cdot v .587$. fig. Brifan av. VI. 205. tab. 588.

Aldr. av. III. $35^{\circ}$ 19. fig. 2.

Larus Minuta. Lin. fyf. 229. Leffer Sea Swallow. Wil. orn. Hætting Tærne. Brapnich, 353. 152.

Raii ふ̧ı. av. 131. Br. Zool. 144.

Descrip. ME weight is only ewo ounces five grains: the length eight inches and a half; the breadth nineteen and a half. The bill is yellow, tipt with black: the forehead and cheeks white: from the eyes to the bill is a black line: the top of the head, and hind part black : the breait, and under fide of the body cloathed with feathers fo clofely fet toge-
ther,
ther, and of fuch an exquifite rich glofs, and fo fine a white, that no fatin can be compared to it: the back and wings of a pale grey: the tail fhort, lefs forked than that of the former, and white : the legs yellow: the irides dufky.

Thefe two fpecies are very delicate, and feem unable to bear the inclemency of the weather on our fhores * during winter: for we obferve they quit their breeding places at the approach of it; and do not return till fpring.

The manners, haunts, and food of this are the fame with thofe of the former; but thefe are far lefs numerous.

Larus niger (Meyvogelin) Gef. L'Epouvantail. Brifon av. 256. Blacko ner a.v. 588. fig. 589 . VI. 211. tab. 20. fig. I.
Aldr. av. III. 35. Sterna filipes. Lin. fyfi. 228.
The Scare Crow. Wil. orn. Siellandis Glitter. Brunnich, 353.

Ourblack cloven-footed Gull. Kleinote Moewe. Frijch, II. Idem. 354. 220.

Raii fyn. av. 131. Idem. 132. Br. Zool. 145. No. 6.

$T$HIS is of a middle fize, between the firft and Descrip, fecond fpecies. The ufual length is ten inches; the breadth twenty-four; the weight two ounces and a half. The head, neck, breaft, and
Nortb Wales,

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O 。
belly,
belly, as far as the vent, are black; beyond is white: the male has a white fpot under its chin : the back and wings are of a deep afh color: the tail is fhort and forked; the exterior feather on each fide is white; the others afh colored: the legs and feet of a dufky red. Mr. Ray calls this a clovenfooted gull; as the webs are depreffed in the middle, and form a crefcent. Thefe birds frequent frefh waters; breed on their banks, and lay three fmall eggs of a deep olive color, much fpotted with black.

They are found during fpring and fummer in vaft numbers in the Fens of Lixcoln/bire; make an inceffant noife, and feed as well on flies as water infeets and fmall fifh.

Birds of this fpecies are feen very remote from land. Kalm faw flocks of hundreds in the Atlantic ocean, midway between England and America; and a later voyager affured me he faw one 240 leagues from the Lizard, in the fame ocean.

## STORMY PETREL.



FULMAR.


BILL ftrait, hooked at the end. NOSTRILS cylindric, tubular. LEEGS naked above the knees. BACK TOE none : inftead, a fharp SPUR pointing downwards.

| orn. | Lin | 259. Fure |
| :---: | :---: | :---: |
| Fulmar. Martin's woy. St. | The Miallemucke. Martin's | MAR $\mathrm{P}_{\text {P }}$ |
| Kilda. 30. Defcr. rweft. | Spitzberg. 93. |  |
| Thes. 283. | Hav-Heft. Gunner, tab. 1, |  |
| Fulmer. Macauly's bif. St. Kilda. 145. | Procellaria glacialis. Brunnich ornith. 18. |  |
| Haffheft. Clufii exot. 368. | Norvegis Hav-Heft, Malle- |  |
| Procellaria cinerea, le $\mathrm{Pe}-$ trel cendrè. Brifon av. VI. | moke V. Mallemuke. Brun: nich, 118. |  |
| 143. tab. 12. fig. 2. | Br. Zool. 14.5. |  |
| Pl. enl. 59. |  |  |

THIS fpecies inhabits the ifle of St. Kilda; makes its appearance there in November, and continues the whole year, except September and October; it lays' a large, white, and very brittle egg; and the young are hatched the middle of June. No bird is of fuch ufe to the inanders as this: the Fulmar fupplies them with oil for their lamps, down for their beds, a delicacy for their tables, a balm for their wounds, and a medicine for their diftempers. The Fulmar is alfo a certain prognofticator of the change of the wind ; if it comes O 02 $\$$
XLV.

PETREL'
to land, no weft wind is expected for fome time; and the contrary when it returns and keeps the fea.

The whole genus of Petrels have a peculiar faculty of fpouting from their bills, to a confiderable diftance, a large quantity of pure oil; which they do by way of defence, into the face of any that attempts to take them: fo that they are, for the fake of this panacaa, feized by furprize; as this oil is fubfervient to the above-mentioned medical ufes. Martin tells us, it has been ufed in London and Edinburgh with fuccefs, in Rboumatic cafes.

The fize of this bird is rather fuperior to that of the common gull: the bill very ftrong, much hooked at the end, and of a yellow color. The noftrils are compofed of two large tubes, lodged in one fheath: the head, neck, whole under fide of the body, and tail, are white; the back, and coverts of the wings afh colored: the quil feathers dulky: the legs yellowifh. In lieu of a back toe, it has only a fort of fpur, or fharp ftrait nail. Thefe birds feed on the blubber or fat of whales, \&cc. which, being foon convertible into oil, fupplies them conftantly with means of defence, as well as provifion for their young, which they caft up into their mouths. They are likewife faid to feed on forrel, which they ufe to qualify the unctious diet they live on.

Frederick Martens, who had opportunity of feeing vaft numbers of thefe birds at Spitzbergen, obferves, that they are very bold, and refort after the whale
fifhers in great flocks, and that when a whale is taken, will, in fpite of all endeavours, light on it and pick out large lumps of fat, even when the animal is alive. That the whales are often difcovered at fea by the multitudes of Mallemuckes flying; and that when one of the former are wounded, prodigious multitudes immediately follow its bloody track. He adds, that it is a moft gluttonous bird, eating till it is forced to difgorge its food.

Avis Diomedea, Artenna. Proceliaria Puffinus. Lin. Syjt. Aldr. arj. III. 36. 213.
258. ShearWater.

Manks Puffin. Wil. orn. 333. Puffinus, le Puffin. Brifon

Raii Syn. a.v. $134^{\circ}$
Shear water. Iden. 133.
Wil. orn. 334:
Patines de oviedo. Raii fyn. av. 191.
Edw. av. 359 •
av. VI. 131. tab. 12. fg. 1. is a variety of it. Feroenfibus Skrabe. Norvegis Skraap, Pullus. Feroenfibus Liere. Brunnich, 119. Manks Petrel. Br. Zool. 146 .

THE length of this fpecies is fifteen inches; the breadth thirty-one: the weight feventeen ounces: the bill is an inch and three-quarters long; noftrils tubular, but not very prominent: the head, and whole upper fide of the body, wings, tail, and thighs, are of a footy blacknefs; the under fide from chin to tail, and inner coverts of the wings, white: the legs weak, and compreffed fideways; dufky behind, whitifh before.

Thefe birds are found in the Calf of Man: and
as Mr . Ray fuppofes in the Scilly-ifes: they refort to the former in February; take a fhort poffeffion of the rabbet burrows, and then difappear till April: they lay one egg, white and blunt at each end; and the young are fit to be taken the beginning of Auguft; when great numbers are killed by the perfon who farms the ine: they are falted and barelled; and when they are boiled, are eaten with potatoes. During the day they keep at fea, fifhing; and towards evening return to their young; cwhom they feed, by difcharging the contents of their ftomachs into their mouths; which by that time is turned into oil: by reafon of the backward fituation of their legs they fit quite erect. They quit the ifle the latter end of Auguft, or beginning of September; and, from accounts lately received fromnavigators, we have reafon to imagine, that like the form-finch, they are difperfed over the whole Atlontic ocean.

This fpecies inhabits alfo the Orkney ines, where it makes its neft in holes on the earth near the thelves of the rocks and headlands; it is called there the Lyre; and is much valued there, both on account of its being a food, and for its feathers. The inhabitants take and falt them in Auguft for winter provifions, when they boil them with cabbage. They alfo take the old ones in March; but they are then poor, and not fo well tafted as the young: they appear firtt in thofe inlands in Fe bruary.

The Storm-finck. Clufii exot. 368.

Wil. orn. 395.
Small Petrel. Edw. av. 90. Stromwaders vogel. Faun. Borlafe's Cornzual. 247. tab. 29.

The Gourder. Smith's bif. Kerry. 185.
Affilag. Martin's voy. St. Kilda. 34. Sib. bif. Fife. 48. Procellaria, le Petrel. Brifon Little Petrel. Br. Zool. 146.

THIS bird is about the buik of the houfe fwallow : the length fix inches; the extent of wings thirteen. The whole bird is black, except the coverts of the tail and vent-feathers, which are white: the bill is hooked at the end : the noftrils tubular : the legs nender, and long. It has the fame faculty of fpouting oil from its bill as the other fpecies: and Mr. Brunnich tells us, that the inhabitants of the Ferroe illes make this bird ferve the purpofes of a candle, by drawing a wick through the mouth and rump, which being lighted, the flame is fed by the fat and oil of the body. Except in breeding time it is always at fea; and is feen all over the vaft Atlantic ocean, at the greateft diftance from land; often following the veffels in great flocks, to pick up any thing that falls from on board: for trial fake chopped ftraw has been
flung over, which they would ftand on with expanded wings; but were never obferved to fettle on, or fwim in the water: it prefages bad weather, and cautions the feamen of the approach of a tempeft, by collecting under the ftern of the hips: it braves the utmoft fury of the ftorm, fometimes fkimming with incredible velocity along the hollows of the waves, fometimes on the fummits: Clufius makes it the Camilld of the fea.

Vel mare per medium fluctu fufpenfa tumenti Ferret iter, celeres nec tingeret æquore plantas. Virgil.

She fivept the feas, and as the fkim'd along, Her flying feet unbath'd on billows hung.

Thefe birds are the Cypselli of Pliny, which he places among the Apodes of Arijfotle; not becaufe they wanted feet, but were Kaxionooza f, or had bad, or ufelefs ones; an attribute he gives to thefe fpecies, on a fuppofition they were almoft always on the wing. Herdouin, a critick quite unkilled in natural hiitory, imagines them to be martins, the Cypselli of Arifotle $\dagger$ : but a little attention to the text of each of thofe antient naturalifts, is fufficient to evince that they are very different birds; the latter very accurately defcribes the characters of that fpecies of fwallow: while Pliny expreffes the very manner of life of our Petrel.

$$
\begin{aligned}
& \text { Arif. }{ }^{17} \\
& + \text { P. } 1067 .
\end{aligned}
$$

Class II. STORMY PETREL.
" Nidificant in fcopulis, hæ funt quæ toto mari cernuntur: nec unquam tam longo naves, tamque continuo curfu recedunt a terra, ut non circumvolitent eas Apodes." Lib. x. c. 39.

In Auguf 1772, I found them on the rocks called Macdonald's Table, off the north end of the Ille of Skie; fo conjecture they breed there. They lurked under the loofe ftones, but betrayed themfelves by their twittering noife.
XLVI. BILL flender, furnifhed at the end with a crooked

MERGAN. SER. nail. Edges of each mandible fharply ferrated. NOSTRILS near the middle of the mandible. Small, fub-ovated.
TONGUE flender.
FEET, exterior toe longer than the middle,


THESE birds frequent our rivers, and other frefh waters, efpecially in hard winters; they are great divers, and live on fifh. They are never feen in the fouthern parts of Great Britain during fummer; when they retire far north to breed; for in that feafon they have been fhot in the Hebrides. They are uncommonly rank, and fcarcely eatable.
Discrip. The male weighs four pounds: its length is two feet four inches; the breadth three feet two.


The bill is three inches long, narrow, and finely Male. toothed, or ferrated: the color of that, and the irides, is red.

The head is large, and the feathers on the hind part long and loofe: the color black, finely gloffed with green: the upper part of the neck the fame: the lower part, and under fide of the body of a fine pale yellow: the upper part of the back, and inner fcapulars are black: the lower part of the back, and the tail are afh colored: the tail confifts of eighteen feathers : the greater quilfeathers are black, the leffer white, fome of which are edged with black: the coverts at the fetting on of the wing are black; the reft white: the legs of a deep orange color.

The dun Diver, or female, is lefs than the male: Dun Diver. the head, and upper part of the neck are ferruginous; the throar white: the feathers on the hind part are long, and form a pendent creft: the back, the coverts of the wings, and the tail are of a deep afh color: the greater quil feathers are black, the leffer white: the breaft, and middle of the belly are white, tinged with yellow.

We believe that Belon* defcribes this fex under the title of Bieure oyfeau, and afferts, that it builds its neft on rocks and in trees like the Corvorant.

[^12]261. Red EREASTED.

Anas Longiroftra. Gefirer av. Braun kopfiger Tilger, 133. Aldr. av. III. $113 . \quad$ Taucher. Kram. 343. The Serula. Wil. orin. 336. Mergus ferrator. Lin. Syf. Raii fyn. ar. 135. 208.
Leffer toothed Diver. Mor- Pracka. Faun. Suec. 今p. 136. ton's Northampt. 429. Danis Fink-And. Brunnich, L' Harle hupé. Brifon av. VI. 237.
96.

Br. Zool. 147.

Descrip. HiS fecies weighs two pounds: the length is one foot nine inches; the breadth two feet feven : the bill is three inches long; the lower mandible red; the upper dunky: the irides a purplifh red : head and throat a fine changeable black and green : on the firft a long pendent creft of the fame color: upper part of the neck, of the breaft, and the whole belly white : lower part of the breaft ferruginous, fpotted with black: upper part of the back black: near the fetting on of the wings fome white feathers, edged and tipt with black: the exterior fcapulars black; the interior white: lower part of the back, the coverts of the tail, and feathers on the fides under the wings and over the thighs grey, elegantly marked with ziczag lines of black: coverts on the ridge of the wings dufky; then fucceeds a broad bar of white: the greater coverts half black, half white : the fecondaries next the quil feathers marked in the fame manner; the reft white, edged on one fide with black: the quil feathers
M.\& F. RED-BREASTED GOOSANDER.

feathers dufky. Tail fhort and brown: legs orange colored.

The head and upper part of the neck of the female of a deep ruft color: the creft fhort: throat white : fore part of the neck and breaft marbled with deep afh color: belly white: great quil-feathers dufky: lower half of the neareft fecondaries black; the upper white; the reft dufky: back, fcapulars, and tail afh colored. The upper half of the firf fecondary feathers white; the lower half black: the others dufky.

Thefe birds breed in the northern parts of Great Britain; we have feen them and their young on Locb Mari in the county of Rofs, and in the ine of Ilay.

La Piette. Belon av. 171. Le petitharle hupèou le Piette. 262. Smew.
Mergus rhenanus. Gefner av.
131.

Aldr arv. III. 111.
White Nun. Wil. orn. 337.
Lough Diver. 338.
Raii fyn, a.v. 135.
Mergus albellus. Lin. Syt. 209.

Brifon av. VI. 243. Tab. 24. fig. I. \& 2.

Kram. 34.4.
Kreutz-Ente (Crofs-Duck) Frich, II. 172.
Cimbris Hviid Side. Brumnich, 97.

Br. Zool. 148. Scopoli, No. 89. Faun. Suec. SP. I37.

ITS weight is thirty-four ounces: the length Descrip. eighteen inches; the breadth twenty-fix. The bill is near two inches long, and of a lead color: the head is adorned with a long creft, white above, black beneath : from a little beyond the eye to the bill, is a large oval black fpot, gloffed with green; the head, neck, and whole under fide of the body are of a pure white; on the lower part of the neck are two femilunar black lines pointing forward: the inner fcapulars, the back, the coverts on the ridge of the wing, and the greater quil-feathers are black; the middle rows of coverts are white; the next black, tipt with white; the leffer quil feathers the fame; the fcapulars next the wings white: the tail deep afh color: the legs a bluifh grey.

The female, or lough diver, is lefs than the male. The marks in the wings are the fame in both fexes: the back, the fcapulars, and the tail are dufky : the head, and hind part of the neck ferruginous: chin, and fore part of the neck white: the breaft clouded with grey: the belly white: the legs dufky.


Descrip. 1 HIS bird weighs fifteen ounces: the length is one foot four inches; the breadth one foot eleven inches: the bill is of a lead color: the head is llightly crefted, and of a ruft color: from beyond the eyes to the bill is an oval black fpot: the cheeks and throat are white: the hind part of the neck is of a deep grey; the fore part clouded with a lighter: the belly white: the back and tail are of a durky afh color: the legs of a pale afh color: the wings have exactly the fame marks and colors with the fmew ; and as the fpaces between the eyes and bill are marked with a fimilar fpot in both, if authors did not agree to make the lougb diver the female of that bird, we fhould fuppofe this to be it.

BILL,
XLVII. BILL ferong, flat, or depreffed, and commonly DUCK. furnifhed at the end with a nail. Edges divided into fharp lamella. NOSTRILS fmall and oval. TONGUE broad, edges near the bafe fringed. FEET; middle toe the longeft.

| Fild | Gefner av. 37 | Schwane. Kram. $33^{8}$ |
| :---: | :---: | :---: |
| Swan. | Wild Swan, Elk, or Hooper. Wil. orn. 356. | Anas Cygnus ferus. Lin. fyfo. 194. |
|  | Raii fyn. av. 136. | Swan. Faun. Suec. $\sqrt{\beta} .107$ |
|  | Edw. av. 150. | Danis Vild Svane. Cimbris |
|  | Le Cygne fauvage. Brifon | Snabel-Svane. Brunnich, |
|  | av. VI. 292. Tab. 28. | 94. ${ }^{\text {a }}$ |
|  | Labod. Scopoli, No. 66. | Br. Zool. 149. add. plates. |

THE wild fwan frequents our coafts in hard winters in large flocks, but as far as we can inform ourfelves does not breed in Great Britain. Martin * acquaints us, that fiwans come in OEtober in great numbers to Lingey, one of the Weftern Ifles; and continue there till $M a r c h$, when they retire more northward to breed. A few continue in Mainland, one of the Orknies, and breed in the little inles of the frefh water lochs; but the multitude retires at approach of fpring. On that account, fwans are there the country man's almanack: on

$$
\text { * Defer. Wef. Ifles, } 7 \mathrm{r}
$$

their quitting the ifland, they prefage good weather ; on their arrival, they announce bad. Thefe, as well as moft ocher water fowl, prefer for the purpofe of incubation thofe places that are left frequented by mankind : accordingly we find that the lakes and forefts of the diftant Lapland are filled during fummer with myriads of water fowl, and there fwans, geefe, the duck tribe, goofanders, divers, \&xc. pafs that feafon; but in autumn return to us, and to other more hofpitable fhores *.

This fpecies is lefs than the tame fwan : length Descrip. five feet to the end of the feet; to that of the tail four, feet ten inches: extent of wing feven feet three inches: weight from thirteen to fixteen pounds. The lower part of the bill is black; the bafe of it, and the fpace between that and the eyes, is covered with a naked yellow fkin; the eyelids are bare and yellow: the whole plumage in old birds is of a pure white; the down is very foft and thick : the legs black. The cry of this kind is very loud, and may be heard at a great diftance, from which it is fometimes called the Hooper.

* Flora Lapponica, 273. Oeuvres de M. de Maupertuis. Tom. III. p. 141, 175. According to the obfervation of that illuftrious writer, the Lapland lakes are filled with the larve of the Knat (culex pipiens. Lin. Syyt. 602.) or fome other infect, that depofites its eggs in the water; which being an agreeable food to water fowl, is another caufe of their refort to thofe deferts.

265. Tame Le Cygne. Belon av. 151. SWAN.

Cygno, Cifano. Aldr. av.
III. I.

Wil. orn. 355.
Raii fyn. av. 136.
Edrw. av. 150.
Plott's bift. Staff. 228.

Le Cygne. Brifonav. VI. 288. Anas Cygnus manfuetus. Lin. fy/t. 194.
Swan. Faun. Suec. Jp. 107.
Schwan. Frifch, II. 152.
Danis Tam Svane. Brunnich, 44.

Br. Zool. 149. add. plates.

Descrip. IHIS is the largeft of the Britifh birds. It is diftinguifhed externally from the wild fwan; firft, by its fize, being much larger: fecondly, by the bill, which in this is red, and the tip and fides black, and the fkin between the eyes and bill is of the fame color. Over the bafe of the upper mandible projects a biack callous knob: the whole plumage in old birds is white; in young ones afh colored till the fecond year: the legs dufky: but Dr. Plott mentions a variety found on the Trent near Rugely, with red legs. The fwan lays feven or eight eggs, and is near two months in hatching: it feeds on water plants, infects and fhells. No bird perhaps makes fo inelegant a figure out of the water, or has the command of fuch beautiful attitudes in that element as the fwan: almoft every poet has taken notice of it, but none with that juftice of defcription, and in fo picturefque a manner, as our Milton.

The fivan with arched neck
Between her white wings mantling, proudly rows
Her ftate with oary feet. Par. Loft, B. VII.
But we cannot help thinking that he had here an eye to that-beautiful paffage in Silius Italicus on the fame fubject, though the Englifh poet has greatly improved on it.

> Haud fecus Eridani ftagnis, ripâve Cay/fri Innatat albus clor, pronoque immobile corpus Dat fluvio, et pedibus tacitas eremigat undas. Lib, XIV.

In former times it was ferved up at every great feaft, when the elegance of the table was meafured by the fize and quantity of the good cheer. Cygnets are to this day fattened at Norwich about Cbrifmas, and are fold for a guinea a piece.

Swans were formerly held in fuch great efteem in England, that by an act of Edrward IV. c. 6. " no one that poffeffed a freehold of lefs clear yearly value than five marks, was permitted to keep any, other than the fon of our fovereign lord the king." And by the eleventh of Henry VII. c. 1\%. the, punifhment for taking their eggs was imprifonment for a year and a day, and a fine at the king's will. Though at prefent they are not fo highly valued as a delicacy, yet great numbers are preferved for their beauty; we fee multitudes on the Thames and Trent, but no where greater numbers than on the falt water inlet of the fea, near $A b$ botbury in Dorjetfbire.

Thefe birds were by the ancients confecrated to Apollo and the Mufes ;

- $\varepsilon$ viva wiunos $\mu \varepsilon$ ñodos

Movoas शşãtus. Eurip. Iphig. in Taur. Iin. 1104.
And Callimacbus, in his hymn upon the ifland of Delos, is ftill more particular:








- When from Pactolus' golden banks Apollo's tuneful fongfters, fnowy fivans
Steering their flight, feven times their circling courfe
Wheel round the ifland, caroling mean time
Soft melody, the favourites of the Nine,
Thus ufhering to birth with dulcet founds
The God of harmony, and hence fev'n ftrings
Hereafter to his golden lyre he gave,
For ere the eighth foft concert was begun
He fprung to birth.
Dod's Callinachus, p. 115.
Upon this idea of their being peculiarly confecrated to Apollo and the Mufes, (the deities of harmony) feems to have been ingrafted, the notion the antients had of fwans being endowed with a mufical voice. Tho' this might be one reafon for the fable; yet, to us there appears another ftill ftronger, which
which arofe from the Pytbagorean doctrine of the tranfmigration of the foul into the bodies of animals; from the belief, that the body of the fwan was allotted for the manfion of departed poets. Thus Plato makes his prophet fay, wesv $\mu s \nu \gamma \alpha p$ quxinv
 the foul of Orpbous prefer the life of a fwan."

After the antients had thus furnifhed thefe birds with fuch agreeable inmates, it is not to be doubted but they would attribute to them the fame powers of harmony, that poets pofeffed, previous to their tranfmigration: but the vulgar not diftinguihing between the fweetnefs of numbers, and that of voice, ignorantly believed that to be real, which philofophers and poets only meant metaphorically.

In time a fwan became a common trope for a Bard; Horace calls Pindar Dircoum Cygnum, and in one ode even fuppofes himfelf changed into a fwan; Virgil fpeaks of his poetical brethren in the fame manner,

> Vare, tuum nomen
> Cantantes fublime ferent ad fydera cygni. Eclog. IX.

when he fpeaks of them figuratively, he afcribes to them melody, or the power of mufick; but when he talks of them as birds, he lays afide fiction, and like a true naturalift gives them their real note,

Dant fonitum rauci per fagna loquacia cygni, Ryeeid. Lib. X. I.

> * De Republ. Lib. X. fub fine. Thus P P 3

Thus he, as well as Pliny ${ }^{*}$, in fact, gave no credit to the mufick of fwans. Arifotle fpeaks of it only by hearfay $\dagger$, but, when once an error is farted, it is not furprizing that it is adopted, efpecially by poets, geniufes of all others of the moft unbounded imaginations. For this reafon poets were faid to animate fwans, from the notion that they flew higher than any other birds, and Hefiod diftinguifhes them by the epithet of xurroos asoortotai $\ddagger$, " the lofty flying fwans"; Thus Horace, whilft he humbly compares himfelf to a bee, contenting itfelf with the creeping thyme, fends his Dircerum Cygnum into the clouds

> Multa Dircaum levat aura cygnum, Tendit, Antoni, quoties, in altos Nubium tractus. $\quad$ Ode. II. Lib. 4 a
but when he finds himfelf ftruck with a true poetical fpirit, he at once affumes the form of this favourite bird,

Non ufitata nec tenui feror
Penna, biformis per liquidum æthera
Vates:

- et album mutor in alitem. Ode. XX. Lib. 2.

And doubtlefs he was on the wing in his firft ode,
Sublimi feriam fydera vertice.

$$
\begin{aligned}
& \text { Lib. X. c. } 33 . \\
& + \text { Hif. an. } 1045 \cdot \\
& \ddagger \text { Scut. Hers. 1. } 3 \text { 36. }
\end{aligned}
$$

Befides thefe opinions, the antients held another ftill more fingular, imagining that the fwan foretold its own end: to explain this we muft confider the twofold character of the poet, Vates and Poeta, which the fable of the tranfmigration continue to the bird, or they might be fuppofed to derive that faculty from Apollo* their patron deity, the god of prophecy and divination.

As to their being fuppofed to fing more fweetly at the approach of death, the caufe is beautifully explained by Plato, who attributes that unufual melody, to the fame fort of Ecfafy that good men are fometimes faid to enjoy at that awful hour, forefeeing the joys that are preparing for them on

 $n, \varepsilon \nu \tau \omega \pi \rho \sigma \sigma \varepsilon \varepsilon \nu \chi \rho \sigma \omega+$. "They become prophetic, and forefeeing the happinefs which they fhall enjoy in another ftate, are in greater ecitafy than they have before experienced".

This notion, tho' accounted for by Plato, feems to have been a popular one long before his time, for ACchylus alludes to it in his Agamemnon; Clytemnefira fpeaking of Caffandra, fays,
 Tov vรatov $\mu \varepsilon \lambda-\psi \alpha \sigma \alpha$ Tava Kıı $\tau \boldsymbol{\alpha}$.

- She like the fwan

Expiring, dies in melody.

* Platonis Pbado. Ed. Cantab. 1683. p. 124. + Ibid.

$$
\text { P p } 4
$$



Descrip. HHIS is our largeft fpecies; the heavieft weigh ten pounds: the length is two feet nine; the extent five feet.

The bill is large and elevated; of a flefh color, tinged with ycllow: the nail white: the head and neck cinereous, mixed with ochraceous yellow : the the hind part of the neck very pale; and at the bafe of a yellowifh brown.

Brealt and belly whitifh, clouded with grey or ah color: back grey: leffer coverts of the wings almoft white; the middle row, deep cinereous flightly edged with white: the primaries grey, tipt with black, and edged with white: fecondaries entirely black; grey only at their bafe: the fcapulars of a deep afh color, edged with white.

The coverts of the tail, and the vent feathers of a pure white: the middle feathers of the tail dufky, tipt with white; the exterior feathers almoft wholly white. The legs of a flefh color.
History. This fpecies refides in the fens the whole year: breeds there, and hatches about eight or nine young which are often taken, eafily made tame, and efteemed moft excellent meat, fuperior to the domeftic goofe. The old geefe which are fhot, are plucked and fold in the market as fine tame ones; and readily bought, the purchafer being deceived by the fize, but their flefh is coarfe. Towards winter they collect in great flocks, but in all feafons live and feed in the fens.

The Grey Lag is the origin of the domeftic goofe; it is the only fpecies that the Britons could take young, and familiarize : the other two never breed here, and migrate during fummer. The mallard comes within the fame defcription, and is the fpecies to which we owe our tame breed of ducks: both preferve fome of the marks of their wild ftate; the goofe the whitenefs of the coverts of the tail and vent-feathers; the drake its curled feathers. The goofe in other colors fports lefs in the tame kind than the other.

Tame geefe are of vaft longevity. Mr. Willugh- Tame Goose by gives an example of one that attained eighty years.

Tame geefe are keep in vaft multitudes in the fens of Lincolnfire; a fingle perfon will keep a thoufand old geefe, each of which will rear feven; fo that towards the end of the feafon he will become mafter of eight thouland. I beg leave to repeat here part of the hiftory of their ceconomy from my tour in Scotlond, in order to complete my account.

During the breeding feafon thefe birds are lodged in the fame houfes with the inhabitants, and
even in their very bed-chambers : in every apartment are three rows of coarfe wicker pens, placed one above another; each bird has its feparate lodge divided from the other, which it keeps poffeffion of during the time of fitting. A perfon, called a Gozzard, i. e. Goofe-berd, attends the flock, and twice a day drives the whole to water; then brings them back to their habitations, helping thofe that live in the upper ftories to their nefts, without ever mifplasing a fingle bird.
Feathers.
The geefe are plucked five times in the year: the firft plucking is at Lady-Day, for feathers and quils, and the fame is renewed, for feathers only, four times more between that and Michaelwas. The old geefe fubmit quietly to the operation, but the young ones are very noify and unruly. I once faw this performed, and obferved, that gollins of fix weeks old were not fpared; for their tails were plucked, as I was told, to habituate them early to what they were to come to. If the feafon proves cold, numbers of the geefe die by this barbarous cuftom. At the time, about ten pluckers are employed, each with a coarfe apron up to his chin.

Vaft numbers of geefe are driven annually to London to fupply the markets, among them all the fuperannuated geefe and ganders (called here Cagmags) which, by a long courfe of plucking, prove uncommonly tough and dry.

The feathers are a confiderable article of com-
merce; thofe from Somerfetfire are efteemed the beft; and thofe from Ireland the worft.

It will not here be foreign to the fubject to give fome account of the feathers that other birds and other countries fupply our Ifland with, which was communicated to us by an intelligent perfon in the feather trade.

Eider down is imported from Denmark, the ducks that fupply it being inhabitants of Hudjon'sBay, Greenland, Iceland and Norway; our own inands weft of Scotland breed numbers of thefe birds, and might turn out a profitable branch of trade to the poor inhabitants. Hudfon's-Bay alfo furnifhes a very fine feather, fuppofed to be of the goofe kind.

The down of the fwan is brought from Dantzick. The fame place alfo fends us great quantity of the feathers of the cock and hen. The London poulterers fell a great quantity of the feathers of thofe birds, and of ducks and turkies; thofe of ducks being a weaker feather, are inferior to thofe of the goofe; turkey's feathers are the worft of any.

The beft method of curing feathers is to lay them in a room in an expofure to the fun, and when dried to put them in bags, and beat them well with poles to get the dirt off.

We have often been furprized that no experiments had been made on the feathers of the $A u k$ tribe, as fuch numbers refort to our rocks annu-
ally, and promife, from the appearance of their plumage, to furnifh a warm and foft feather; but we have lately been informed, that fome unfucceffful trials have been made at Glafgow: a gentleman who had made a voyage to the weftern inles, and brought fome of the feathers home with a laudable defign of promoting the trade of our own country, attempted to render them fit for ufe, firt by baking, then by boiling them; but their ftench was fo offenfive, that the Glafgow people could not be prevaled on to leave off their correfpondence with Dantzick. The difagreeable fmell of thefe feathers muft be owing to the quantity of oil that all water fowls ufe from the glandules of their rump to preferve and fmooth their feathers; and as fea birds mult expend more of this unction than other water fowl, being almoft perpetually on that element, and as their food is entirely fifh, that oil muft receive a great ranknefs, and communicate it to the plumage, fo as to render it abfolutely unfit for ufe.

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I. .


L'Oye privèe, L'Oye Sal- Gus dikaya. Ruff. N. Com. 267. Beanvase. Belon av 156. 158. Pear. IV. 418 . Goose.
Gefiner av. 142. 158 . Wild ganfs, Einheimifche
Alder av. III. 42. 67. Phil. ganfs. Kram. 338. Frisch, Tr. 11. 852.
Tame Goofe, common wild Anas anfer manfuetus-ferus. Goof. Wit. own. $35^{8} \cdot \sqrt{\hat{F}}$. $1,2$.

Lin. fyi. 197.
Gas-will gas. Faun. Sues. Sp. 114.
Rail /yb. av. I36. Jp. 3, 4.
L'Oye domeftique, L'Oye Crantz's Greenl. I. 80. Sauvage. Brifon av. VI. Denis Tam Gaas. Brunnichs 262, 265 .
55.

Oca domeftica, Salvatica, Br. Zool. 150.
Baletta. jinan. 104.

THE length of this fpecies is two feet feven inches: the extent four feet eleven: the weight fix pounds and a half. The bill which is the chief feecific diftinction between this and the former is foal, much compreffed near the end, whitifh and fometimes pale red in the middle; and black at the bare and nail: head and neck are cinereous brown, tinged with ferruginous: breaft and belly dirty white, clouded with cinereous: fides and fcapulars dark ain color, edged with white: the back of a plain aft color: coverts of the tail white: leffer coverts of the wings light grey, nearly white; the middle deeper tipt with white: primafries and fecondaries grey, tipt with black: feet and legs faffron color: claws black.

This fpecies arrives in Lincolnfare in autumn, History.
and is called there the bean goofe, from the likenefs of the nail of the bill to a horfe bean. They always light on corn fields, and feed much on the green wheat.

They never breed in the fens; but all difappear in May. They retreat to the fequeftred wilds of the north of Europe: in their migration they fly a great height, cackling as they go. They preferve a great regularity in their motions, fometimes forming a ftrait line, at others affume the fhape of a wedge, which facilitates their progrefs; for they cut the air the readier in that form than if they flew pellmell.

> 268. White The laughing Goofe. Edzu. Brifoon a.v. VI. 269.
> Eronted. av. 153 . Polnifche Ganfs. Kram. 339. Anas erythropus (fam.). Danis Vild Gaas. Brumnich, Lin. fyjf. 197. Fixllgas. Faun. Suec. Sp. 116. Br. Zool. 150. L'Oye fauvage du nord.

Descrif.

THE weight of this kind is about five pounds and a half: the length two feet four: the extent four feet fix: the bill elevated, of a pale yellow color, with a white nail. The forehead white : head and neck of the fame color with thofe of the former: the coverts of the wing; the primaries and fecondaries darker: in the tail the afh color predominates: it is like the two preceding, furrounded
rounded with a white ring. The breaft and belly of a dirty white, marked with great fpots of black : the legs yellow: the nails whitifh.

Thefe vifit the fens and other parts of England during winter, in fmall flocks: they keep always in marihy places, and never frequent the corn lands. They difappear in the earlieft fpring, and none are feen after the middle of Marcb. Linneus makes this goofe the female of the Bernacle; but we think his opinion not well founded.

Doctor Lifer adds two other fpecies to the lift of Englifh geefe; one he calls the great Black Gooje or Wbilk; the other the fmall Spanißh Goofe, which he fays is of the fame color with the common goofe; but is no larger than the Brent; but each fpecies has hitherto eluded our moft diligent enquiry.

I muft conclude this fubject with obferving that the goofe was one of the forbidden foods of the Britons in the time of Ccejar.

L'Oye nonnette ou Cravant. La Bernache. Brifon av. VI, Belon av. 158.
Brenta, vel Bernicla. Gefner Anas Erythropus (mas), Lix. av. 109. 110.
Aldr. av. III. 73. Phil. Tr. Fiællgas. Faun. Suec. /p. 116. II. 853. ' Schottische Gans. Frifch, II. Bernacle, or Clakis. Wil. orn. Raii fyn. av. 137. Sibb. bift. Scot. 21. Gerard's Herbal. 1587. 189.

Anfer brendinus. Caii opufco 87.

Crantz's Greenl. I. 80. Br. Zool. 150.

THIS bird weighs about five pounds; the

Descrip. length is two feet one inch; the breadth four feet
269. BernACLE.
feet five inches; the biil is black, and only one inch three-eights long; the head is fmall; the forehead and cheeks white; from the bill to the eyes is a black line; the hind part of the head, the whole neck, and upper part of the breaft and back are of a deep black; the whole underfide of the body, and coverts of the tail are white; the back, fcapulars and coverts of the wings, are beautifully barred with grey, black, and white; the tail is black, the legs of the fame color, and fmall.

Thefe birds appear in vaft flocks during winter, on the north weft coafts of this kingdom: are very thy and wild; but on being taken, grow as familiar as our tame geefe in a few days; in February they quit our fhores, and retire as far as Lapland, Greeniand and even Spitzbergen to breed *.

They live to a great age: the Rev, Doctor Buckworth of Spelding had one which was kept in the family above two and thirty years; but was blind during the two laft: what its age was when firft taken was unknown.

Thefe are the birds that about two hundred years ago were believed to be generated out of wood, or rather a fpecies of fhell that is often found fticking to the bottoms of hips, or fragments of them; and were called Tree-geeje $\dagger$. Thefe were allo

## * Amcon Acad. VI. 58j. Barent's rucy. 19.

$\dagger$ The fhell here meant is the lepas anatifera. Lin. $\mathrm{fy}_{\mathrm{y}}^{\mathrm{f}} \mathrm{f} .668$. Argenville Conch. tab. 7. the animal that inhabits it is furnifhed with a feathered beard; which, in a credulous age, was believed to be part of the young bird.

## Ciass II, BRENT GOOSE.

thought by fome writers to have been the Cbenalopeces of Pliny: they fhould have faid Cbenerotes; for thofe were the birds that naturalift faid were found in Britain; but as he has fcarce left us any defeription of them; it is difficult to fay which fpecies he intended. I fhould imagine it to be the following; the Brent-goofe, which is far inferior in fize to the wild goofe, and very delicate food *: in both refpects fuiting his account of the Cbeneros.

Les Canes de Mer, Belon aur. Belgis Rotgans, Calmarienf̧bus 270. Brents
166.

Aldr. av. III. 73.
Wil. om. 360.
Raii Jyn. aro. 137.
Bernacle. Nat. bif. Ireland. 192.

Brenta, le Cravant. Brifona av.
VI. 304. tab. 31.

Anas Bernicla. Lin. fyf. ig8.

Prutgas. Faun. Suec. /p. $115^{\circ}$
Cimbris Ray-v Rad-Gaas. Norvegis Raat-v. RaatneGaas. item Goul-v. Gagl. Brnnnich, 52.
Baum-Gans. Frifch, II. 156. Br. Zool. $15^{1}$.
Branta Bernicla. Scopoli, No. 84.

THIS is inferior in fize to the former: the bill Descrip. is one inch and an half long; the color of that, the head, neck, and upper part of the breaft is black; on each fide the flendereft part of the neck is a white fpot; the lower part of the breaft, the fcapulars, and coverts of the wings are afh colored, clouded with a deeper fhade; the feathers

[^13]Vol. II.
Qq above
above and below the tail are white; the tail and quil-feathers black; the legs black.

There birds frequent our coafts in the winter: in Ireland they are called Bernacles, and appear in great quantities in Auguf, and leave it in March. They feed on a fort of long grass growing in the water; preferring the root and forme part above it, which they dive for, bite off and leave the upper part to drive on fore. They abound near Londonderry, Belfaf, and Wexford; and are taken in flight time in nets placed a-crofs the rivers; and are much efteemed for their delicacy. The Rat or Roadgoofe, of Mr. Willugbby *, agrees in fo many refpects with this kind, that we fufpect it only to be a young bird not come to full feathers: the onll difference confining in the feathers next the bill, and on the throat and breaft being brown. We have the greater reafon to imagine it to be fo as Mr . Brumich informs us that the Danish and Norvegian names for this bird are Radgaas and Raatgaas, which agree with those given it by Mr. Willugbby. Mr. Willugbby, Mr. Ray, and M. Brifon very pro_ pertly defrribe the Bernacle and Brent as different fpecies, but Linnaeus makes thee fynonymous, and defcribes the true Bernacle as the female of the white fronted wild goofe. Vide Faun. Suer. 116.

Page 36 I.

Wormius's Eider, or foft feathered Duck, the Cuthbert Duck. Wil. orn. 362.
Raii Syn. av. $14^{1}$.
Great black and white Duck. Edw. av. 98.
Eider anas. Sib. Scot. 2 I.
The Colk. Martin's defcription of the weffern ifles. 25 .
Anfer lanuginofus, l'Oye a duvet. Brifon av. VI. 294. tab. 29. et 30.

Anas molliffima. Lin. Jyf. 271. Eider. 198.

Ada, Eider, Gudunge, Æra. Faun. Suec. 今p. 117.
Pontop. bif. Norway. II. 70. Hor. bift. Icel. 65. Debes Feroe 137.

Erede's bif. Greenland. 92. Mittek. Crantz's Greenl. I. 8r. Edder. Brunnich, 57. 66. Monogr. tab. 1. 2. Duntur Goofe. Sib. Scot. 2I.

THIS ufeful fpecies is found in the weftern ifles of Scotland, particularly on Oranfa, Barra, Rone, and Heiker, and on the Farn iles; but in greater numbers in Norvay, Iceland, and Greealand: from whence a vaft quantity of the down, known by the name of Eider or Edder, which thefe birds furnifh, is annually imported: its remarkably light, elactic, and warm qualities, make it highly efteemed as a ftuffing for coverlets, by fuch whom age or infirmities render unable to fupport the weight of common blankets. This down is produced from the breait of the bird in the breeding feafon. It lays its eggs among the ftones or plants, near the fhore: and prepares a foft bed for them, by plucking the down from its own breaft; the natives watch the opportunity, and take away both eggs and neft : the duck lays again, and reepeats the plucking of its breatt; if the is robbed
Qq.
after
after that, fhe will fill lay; but the drakes muft fupply the down, as her ftock is now exhaulted; but if her eggs are taken a third time, fhe wholly deferts the place.

When I vifited the Farn ifles*, I found the ducks fitting, and toke fome of the nefts, the bafe of which were formed of fea plants, and covered with the down. After feparating it carefully from the plants, it weighed only three quarters of an ounce, yet was fo elaftic as to fill a larger fpace than the crown of the greateft hat. Thefe birds are not numerous on the ines; and it was obferved that the drakes kept on thofe moft remote from the fitting places. The ducks continue on their nefts till you come almoft clofe to them, and when they rife are very flow fliers. The number of eggs in each neft were from three to five, warmly bedded in the down; of a pale olive color, and very. large, gloffy and fmooth.
Descrip. This kind is double the fize of the common duck: its bill is black; the feathers of the forehead and cheeks advance far into the bafe, fo as to form two very fharp angles: the forehead is of a full velvet black: from the bill to the hind part of the head is a broad black bar, paffing acrofs the eyes on each fide : on the hind part of the neck, juft beneath the ends of thefe bars, is a broad pea-green mark, that looks like a ftain :

[^14]

Class II. VELVET DUCK.
the crown of the head, the cheeks, the neck, back, fcapulars and coverts of the wings are white; the lower part of the breaft, the belly, tail, and quil feathers are black; the legs are green.

The female is of a reddifh brown, barred tranfverfely with black; but the head and upper part of the neck are marked with duffy freaks pointing downward; the primary feathers are black; the greater or laft row of coverts of the wings, and the lefter row of quail feathers tips with white: the tail is dufky; the belly of a deep brown, marked obscurely with black. One I weighed was three pounds and a half.

Anas nigra, roftro negro rubro Faun. Suec. Sp. 109. et luteo. Ald. av. III. 97. Gunner. Tab. V.
The black Duck. Wile. orn. Incolis Cbrifianfoe Svœrte. 363. Norvegis Soe-Orre, Haw-

Raii Syn. av. 14I. Orre v. Save - Ire, quibuf-
Dale's biff. Harwich, 405. dam Sorte. Brunnich, 48.
Tarpan. N. Com. Petr. IV. Nordifche fchwartze Ente. 420. Frisch, II. 165. Supp.

La grande Macreufe. Brifon Br. Zool. 152. Scopoli, No. av. VI. 423.
68.

Anas fufca. Lin. yt. 190.

THE male of this Species is larger than the tame duck. The bill is broad and fort,
fpot; and in each wing is a white feather; all the reft of the plumage is of a fine black, and of the foft and delicate appearance of velvet: the legs and feet are red; the webs black. The female is entirely of a deep brown color; the marks behind each ear and on the wings excepted: the bill is of the fame colors with that of the male; but wants the protuberance at the bafe of it, which Linnous gives the male *.

| 273. Scoter. | Black Diver, or Scoter. Wil. orn. 366. <br> Raii fyn. av. 141. <br> La Macreufe. Ray's Letters, 161. <br> Dale's bift. Harwich, 405. | La Macreufe. Briforn av. Vr. 420. T'ab. 38. fig. 2, <br> Anas nigra. Lin. fyjt. 196. <br> Faun Suec. Sp. 110. <br> Br. Zool. 153. |
| :---: | :---: | :---: |

Descrip. HiS fpecies weighs two pounds nine ounces: the length is twenty-two inches; the breadth thirty-four: the middle of the bill is of a fine yellow, the reft is black: both male and female want the hook at the end; but on the bafe of the bill of the former is a large knob, divided by a fiffure in the middle. The tail confifts of fixteen fharp pointed feathers, of which the middle are the longeft. The color of the whole plumage is black, that of the head and neck gloffed over with purple: the legs are black.

* Faun. Suec. laft edit. 39.

This

This bird is allowed in the Romifb cburch to be eaten in Lent, and is the macreuse of the French. It is a great diver, faid to live almoft conftantly at fea, and to be taken in nets placed under water.

Un petit Plongeon efpece de Kram. 341.
Canard. Belon av. 175. Anas fuligula. Lin. Syf. 207.
Strauís endt. Gefner av. 107. Wigge. Faun. Suec. Sp. 132.
Querquedula Criftata. Aldr. Norvegis Trol-And. Brunnich, av. III. 91.
Wil. orn. 365 .
Raii Syn. av. 142.
Reiger-Ente, Straufs-Ente. Frich, II. 171.
Le petit Morillon. Brifon Br. Zool. 153. Scopoli, No. 78. av. VI. $411 . \operatorname{Tab} .27$.fg. I.

THIS fcarcely weighs two pounds: the length

Descrif. is fifteen inches and a half: the bill is broad, of a bluif grey, the hook black: the irides of a fine yellow. The head is adorned with a thick, but fhort pendent creft. The belly, and under coverts of the wings are of a pure white : the quil feathers dufky on their exterior fides and ends; part of their interior webs white; the fecondaries white tipt with black. The reft of the plumage is black, varied about the head with purple: the tail is very fhort, and confifts of fourteen feathers: the legs of a bluifh grey; the webs black. The female wants the creft.

When young, this fex is of a deep brown; and the fides of the head next the bill of a pale yel-
Qq4 low:
low : but it preferves the other marks of the old duck. In this ftate it has been defcribed in the Ornith. boreal. 91, under the title of anas latiroftra.


Descrip. THIS we defcribed from fome ftuft flkins very well preferved *. It feemed lefs than the common duck. The bill was broad, flat, and of a greyifi blue color: the head and neck black gloffed with green: the breaft black: the back, the coverts of the wings, and the fcapulars finely marked with numerous narrow tranfverfe bars of black and grey: the greater quil feathers are dulky: the leffer white, tipt with black: the belly is white: the tail and feathers, both above and below, are black; the thighs barred with dufky and white ftrokes: the legs dufky.

Mr. Willugbby acquaints us, that there birds take their name from feeding on fcoup, or broken thell fifh: they differ infinitely in colors; fo

[^15]Class II. G O L D EN EYE.
that in a flock of forty or fifty there are not two alike.

Clangula. Gefier av. 119. Ald. av. III. 94 .
Will. own. 362.
Rail fyn. ave. 142.
Le Garrot. Brifon av. VI. 416. Tab. 37.fg. 2.

Schwartzkopfige Enten-Tau-
cher. Frisch, II. 183, 184.
Emfs Enter. Tram. 341. $\therefore$ ias clangula. Lin. fy ff. 201.

Knippa, Dipping. Faun. Suec. 276. Golden fp. 122.
Norvegis Ring- Aye, HviinAnd v. Quiin-And, LandAnd. Incolis Chriftianfoe, Bruus-Kop v.Blanke-Kniv. Br. 70, 71.
Br. Zool. 154. add. plates. Scopoli, No. 7 I.

THIS species weighs two pounds: the length is nineteen inches; the breadth thirty-one. The

Descrip.
Male. bill is black, fort, and broad at the bale: the head is large, of a deep black gloffed with green : at each corner of the mouth is a large white foot; for which reafon the Italians call it Quat'occbii, or four eyes: the irides are of a bright yellow: the upper part of the neck is of the fame color with that of the head: the breaft and whole under fide of the body are white.

The fcapulars black and white: the back, tail, and the coverts on the ridge of the wings, black: the fourteen firm quit feathers, and the four laft are black; the fever middlemoft white, as are the coverts immediately above them: the legs of an orange color,

The

The head of the female * is of a deep brown, tinged with red: the neck grey: breaft and belly white: coverts and fcapulars duffy and aft colored: middle quail feathers white; the others, together with the tail, black: the legs duffy. There birds frequent frelh water, as well as the fa; being found on the Sbrop/bire meres during winter.


THIS species is rather leis than the left. The bill of a yellowih brown: the irides gold color: the head of a duffy rut color: round the upper part of the neck is a collar of white; beneath that a broader of grey. The back and covert duffy, with a few white lines: the greater coverts dufky, with a few great foots of white: the primaries black : the fecondaries white. Breaft and belly white: tail dufky: the fides above the thighs black: the legs yellow.

This was bought in the London market. I am doubtfull of the ex. Confult Brifon, VI. 406. tab. XXXVI.

[^16]Mr. Cockfeld, of Stratford in Effex, favored me with an account of two birds of this fpecies, fhot near the fame time. Both agreed in colors; but one weighed twenty-fix ounces, the other only nineteen.

La Tadorne. Belon av. 172. Pl. enl. 53.
Anas maritima. Gefner a.v. Bergander Turneri. Chenalo803, 804. pex Pliniz.
Vulpanfer Tadorne. Aldr.av. Danis Brand-Gaas, GravIII. 7 1, 97. Gaas. Norvegis Ring-Gaas, Fager-Gaas, Ur Gaas, Rodbelte. Feroenfibus Hav-Simmer. Iflandis Avekong. Br . 47.

Wil. orn. 363 .
Raii fyn. av. 140 .
Anas tadorna. Lin. Syf. 195.
Jugas. Faun. Suec. Jp. 113.
Kracht-Ente. Frijch, II. 166. La Tadorne. Brifon av. VI. Br. Zool. 154. 344. tab. 33. fig. 2.

THE male of this elegant fpecies weighs two pounds ten ounces: the length is two feet; the breadth three and a half. The bill is of a bright red, and at the bafe fwells into a knob, which is moft confpicuous in the fpring: the head and upper part of the neck is of a fine blackifh green; the lower part of the neck white: the breaft, and upper part of the back is furrounded with a broad band of bright orange bay : the coverts of the wings, and the middle of the back are white; the neareft fcapulars black, the others white; the greater quil feathers are black; the exterior webs

## 278. ShielDRAKE。

webs of the next are a fine green, and thofe of the three fucceeding orange; the coverts of the tail are white; the tail itfelf of the fame color, and except the two outmoft feathers tipt with black; the belly white, divided lengthways by a black line; the legs of a pale flefh color.

Thefe birds inhabit the fea coafts, and breed in rabbet holes. When a perfon attempts to take their young, the old birds fhew great addrefs in diverting his attention from the brood; they will fly along the ground as if wounded, till the foimer are got into a place of fecurity, and then return and collect them together. From this inftinctive cunning, Turner, with good reafon, imagines them to be the chenalopex *, or fox-goofe of the antients: the natives of the Orknies to this day call them the תlygoofe, from an attribute of that quadruped. They lay fifteen or fixteen eggs, white, and of a roundifh fhape. In winter they collect in great flocks, Their flefh is very rank and bad.

[^17]

Les Canards et les Canes. Anitra, Anitra falvatica, CiBelon a.v. $160 . \quad$ fone. Zinan. $10 j, 106$.
Anas fera torquata minor. Anas bofchas. Anas domerAnas domettica. Gefner av. 113, 96.
Aldr. av. III. 83, 85.
Common wild Duck and
Mallard. Common tame
Duck. Wil. om. $371,380$.
Raii jyn. av. 145, 150.
Le Canard domeftique, le Domeftica, Danis Tam-And.
Canard fauvage. Brifon av. VI. 308, 318.
ETinheimifche ent. Stock ent. Kram. 341.
tica. Lin. Syf. $205^{\circ}$
Gras-and, Blanacke. Faur. Suec. $\sqrt{p}$. 131.
Fera, Norvegis Blaachals v. Gras-And, aliis Stok-And. Danis Vild-And. Brunnich, 87.

$$
\text { ibid. } 88 .
$$

Wilde Ente. Frijch, II. 158. famina. 159.
Br. Zool. $155^{\circ}$.
Ratza. Scopoli, No. 77.

THE mallard ufually weighs two pounds and Descrip. an half: the length is twenty-three inches; the breadth thirty-five: the bill is of a yellowinh green : the head and neck are of a deep and fhining green : more than half round the lower part of the neck is an incomplete circle of white : the upper part of the brealt is of a purplith red; and the beginning of the back of the fame color: the breaft and belly of a pale grey, marked with tranfverfe fpeckled lines of a dufky hue.

The fcapulars white, elegantly barred with brown : the fpot on the wing is of a rich purple: the tail confifts of twenty-four feathers. What diftinguifhes the male of this fpecies from all others are the four middle feathers, which are black and ftrongly
ftrongly curled upwards; but the females want this mark. Their plumage is of a pale reddifh brown, fpotted with black. The legs are of a faffron color.

The common tame fpecies of ducks take their origin from thefe, and may be traced to it by unerring characters. The drakes, howfoever they vary in colors, always retain the curled feathers of the tail : and both fexes the form of the bill of the wild kind. Nature fports in the colors of all domeftic animals; and for a wife and ufeful end; that mankind may the more readily diftinguifh and clame their refpective property. Wild ducks pair in the fpring, and breed in all marfhy grounds, and lay from ten to fixteen eggs. They abound in Lincoln/bire, the great magazine of wild fowl in this kingdom; where prodigious numbers are taken annually in the decoys.
Decoys.
A decoy is generally made where there is a large pond furrounded with wood, and beyond that.a marfhy and uncultivated country: if the piece of water is not thus furrounded, it will be attended with the noife and other accidents, which may be expected to fright the wild fowl from a quiet haunt, where they mean to fleep (during the daytime) in fecurity.

If thefe noifes or difturbances are wilful, it hath been held, that an action will lye againft the difturber.

As foon as the evening fets in, the decoy rifes

Class II. M A L L A R D.
(as they term it) and the wild fowl feed during the night. If the evening is ftill, the noife of their wings, during their flight, is heard at a very great diftance, and is a pleafing, though rather melancholy found. This rifing of the decoy in the evening, is in Somerfet/bire called rodding.

The decoy ducks are fed with hempfeed, which is flung over the fkreens in fmall quantities, to bring them forwards into the pipes, and to allure the wild fowl to follow, as this feed is fo light as to float.

There are feveral pipes (as they are called) which lead up a narrow ditch, that clofes at laft with a funnel net. Over thefe pipes (which grow narrower from the firf entrance) is a continued arch of netting, fufpended on hoops. It is neceffary to have a pipe or ditch for almoft every wind that can blow, as upon this circumftance it depends which pipe the wild fowl will take to; and the decoy-man always keeps on the leeward fide of the ducks, to prevent his effluvia reaching their fagacious noftrils. All along each pipe, at certain intervals, are placed flkreens made of reeds, which are fo fituated, that it is impoffible the wild fowl fhould fee the decoy-man, before they have paffed on towards the end of the pipe, where the purfe-net is placed. The inducement to the wild fowl to go up one of thefe pipes is, becaufe the decoyducks, trained to this, lead the way, either after hearing the whiftle of the decoy-man, or enticed
by the hempfeed; the latter will dive under water, whilft the wild fowl fly on, and are taken in the purfe.

It often happens, however, that the wild fowl are in fuch a tate of fleepinefs and dozing, that they will not follow the decoy-ducks. Ufe is then generaily made of a dog, who is taught his leffon: he paffes backwards and forwards between the reed fkreens (in which are little holes, both for the decoy-man to fee, and for the little dog to pafs through) this attracts the eye of the wild fowl, who not chuning to be interrupted, advance towards this fmall and contemptible animal, that they may drive him away. The dog, all this time, by direction of the decoy-man, plays among the flkreens of reeds, nearer and nearer to the purfe-net; till at laft, perhaps, the decoy-man appears behind a fkreen, and the wild fowl not daring to pais by him in return, nor being able to efcape upwards on account of the net-covering, rufn on into the purfe-net. Sometimes the dog will not attract their attention, if a red handkerchief, or fomething very fingular, is not put about him.

The general feafon for catching fowl in decoys, is from the latter end of October till February; the taking of them earlier is prohibited by an act 10 . George II. c. 32. which forbids it from fune 1, to October I, under the penalty of five fhillings for each bird deftroyed within that fpace.

The Lincolnfire decoys are commonly fet at a

## Class II. M A L L A R D.

certain annual rent, from five pounds to twenty pounds a year: and we have heard of one in Somerfetflire that pays thirty. The former contribute principally to fupply the markets of London. Amazing numbers of ducks, wigeons, and teal are taken: by an account fent us of the number caught, a few winters paft, in one feafon, and in only ten decoys, in the neighborhood of Wainflect, it appeared to amount to thirty-one thoufand two hundred, in which is included feveral other fpecies of ducks; it is alfo to be obferved, that in the above particular, wigeon and teal are reckoned but as one, and confequently fell but at half the price of the ducks. This quantity makes them fo cheap on the fpot, that we have been affured feveral decoy-men would be glad to contratt for years to deliver their ducks at Bofton for ten-pence the couple. The account of the numbers here mentioned, relates only to thofe that were fent to the Capital.

It was cuftomary formerly to have in the fens an annual driving of the young ducks before they took wing. Numbers of people afiembled, who beat a vaft tract, and forced the birds into a net placed at the fpot where the fport was to terminate. A hundred and fifty dozens have been taken at once: but this practice being fuppofed to be detrimental, has been abolifhed by act of parlement.
280. Shovel- Anas latiroftra (ein Breit- Anas clypeata. Lin. Syj. 200, ER.
fchnabel.) Gefner av. 120.
Aldr. av. III. $94 \cdot$
Wil. orn. 370.
Raii Syn. av. 143.
Phafianus marinus. Cbarliona ex. 105.
Blue-wing Shoveler (fam.) Cat. Carol. I. 96.
Le Souchet. Brifon av. VI. 329. Tab. 32.fy̌. 1.

Schauff-ente,Loff-ente.Kram. $34^{2}$.

Faun. Suec. $\sqrt{ }$ P. 119.
Kertlutock *. Krantz's Greenl. I. 80 .

Danis Krop-And, Norvegis Stok-And. Cimbris LeffelAnd. Brunnich, 67. 68. Schield-Ente, Loeffel-Ente. Fricch, II. 161, 162. fæm. 163.

Br. Zool. 155 . Scopoli, No. 70.

Descrip. inis weighs twenty-two ounces: its lengeh twenty-one inches. The bill is black, three inches long, fpreads near the end to a great breadth, is furnifhed with a fmall hook, and the edges of each mandible are pectinated, or fupplied with thin laminæ, that lock into each other when the mouth is clofed. The irides are of a bright yellow: the head and upper part of the neck of a blackifh green: the lower part of the neck, the brealt, and the fcapulars are white: the back brown: the coverts of the wings of a fine flky blue; thofe next the quil feathers tipt with white: the greater quil feathers are dufky; the exterior webs of thofe in the middle, are of a gloffy green. The tail confifts of fourteen feathers; the outmoft are white;

[^18]thofe in the middle black, edged with white : the belly is of a bay color: the vent feathers black: the legs red. The female has the fame marks in the wings as the male, but the colors are lefs bright : the reft of the plumage refembles that of the common wild duck.

wE are indebted to Mr. Bolton for the defcription of this bird, who informed us that it was fometimes taken in the decoys in Lincolnfbire.

It is the fize of a common duck. The bill
281. RED Breasted Shoveler.

Desćrip. large, broad, ferrated at the fides, and entirely of a brownifh yellow color: the head large: eyes fmall: irides yellow: the breaft and throat of a reddifh brown, the latter paler, but both quite free from any fpots. The back is brown, growing paler towards the fides. The tips and pinions of the wings grey: the quil-feathers brown; the reft of a greyifh brown: the fpeculum or fpot purple, edged with white: in the female, the fpot is blue, and all the other colors are fainter. The tail is fhort and white: the vent feathers of a bright brown, fpotted with darker: the legs fhort and nender: the feet fmall, of a reddifh brown color.

| $\begin{aligned} & \text { 282. Pin- } \\ & \text { TAIL. } \end{aligned}$ | Anas caudacuta (ein fpitzfchwantz) Gefner av. I21. Aldr. av. III. 97. <br> Sea Pheafant, or Cracker. Will. orn. 375 . <br> Le Canard a longue queue. BriVon av. VI. 369. íab. 34 . Schwalbenfcheif. Kram. 340. | Raii 今yn. av. 14.7. <br> Anas acuta. Lin. Syft. 202. Aler, Ahlvogel. Faun. Suec. sp. 126. <br> Fafan-Ente. Frijch, II. 160. Brunnich in append. Aglek. Crantz's Greenl. I. 80. Br. Zool. 156. Scopoli, No. 73. |
| :---: | :---: | :---: |

Descripe $H$ form of this fpecies is flender, and the neck long: its weight twenty-four ounces: its length twenty-eight inches; its breadth one yard two inches. The bill is black in the middle, blue on the fides: the head is ferruginous, tinged behind the ears with purple; from beneath the ears commences a white line, which runs fome way down the neck; this line is bounded by black: the hind part of the neck, the back, and fides are elegantly marked with white and dufky waved lines: the fore part of the neck, and belly are white.

The fcapulars friped with black and white : the coverts of the wings afh colored; the lowett tipt with dull orange : the middle quil-feathers barred on their outmoft webs with green, black and white : the exterior feathers of the tail are afh colored: the two middle black, and three inches longer than the others: the feet of a lead color. The female is of a light brown color, fpotted with black. Mr. Hortlib, in the appendix to his Lega-

## LONG TAILED DUCK.


$c y$, tells us that thefe birds are found in great abundance in Connougbt in Ireland, in the month of Fe bruary only; and that they are much efteemed for their delicacy.

Wil. orn. 364 .
Raii Jyn. av. 145 .
Long tailed Duck. Edru. av. 280.

Le Canard a longue queue d'Illande. Brifon av. VI. 379.

Anas glacialis. Lin. Jyf. 203.

Norvegis Ungle, Angeltafke v. Troefoerer. Feroenfibus Oedel. IJlandis Ha-Ella v. Ha-Old. Incolis Cbrifianfoe Gadiffen, Klaefhahn Dykker. Brunnich, 75, 76. Br. Zool. 156. Scopoli, No. 74.

THIS is inferior in fize to the former. The bill is fhort, black at the tip and bafe, orange calored in the middle; the cheeks are of a pale brown : the hind part of the head, and the neck boch before and behind are white; the fides of the upper part of the neck are marked with a large dufky bar, pointing downwards; the breaft and back are of a deep chocolate color; the fcapulars are white, long, narrow, and flarp pointed. The coverts of the wings, and greater quil feathers duky; the leffer of a reddifh brown: the belly white: the four middle feathers of the tail are black; and two of them near four inches longer than the others, which are white: the legs dufky. Thefe birds breed in the moft northern parts of the world, and only vifit our coafts in the fevereft winters.

Descriz.
283. Lonc tailed.
284. Pochard. La Cane a tefte rouffe. Belon aั. 173. Anas fera fufca, vel media (ein wilte grauwe ente, Rotent.) Gejner av. 116. Aldr. a.v. III. 93. Poker, Pochard, or red head. ed Wigeon. Wil. orn. 367 . Raii Jyn. av. 143.

Descrip. TS weight is about one pound twelve ounces: its length nineteen inches; its breadth two feet and a half. The bill is of a deep lead color: the head and neck are of a bright bay color : the breaft and part of the back where it joins the neck, are black : the coverts of the wings, the fcapulars, back and fides under the wings are of a pale grey, elegantly marked with narrow lines of black: the quil feathers dufky: the belly afh colored and brown: the tail confilts of twelve fhort feathers, of a deep grey color: the legs lead colored: the irides of a bright yellow, tinged with red.
Female.
The head of the female is of a pale reddifh brown: the breaft is rather of a deeper color: the coverts of the wings a plain afh color: the back marked like that of the male : the belly afh colored. Thefe birds frequent frefh water as well as the fea; and being very delicate eating, are much fought for in the London markets, where they are known by the name of Dun birds.

Anas rufa roftro pedibufque cinereis. Foun. Suec. $\sqrt{P} \cdot 47 \cdot$
285. Ferru= ginous.

THE defcription of this fpecies was fent to us by Mr. Bolton. The weight was twenty ounces : the bill is long and flatted, rounded a little at the bafe, ferrated along the edges of each mandible, and furnifhed with a nail at the end of the upper. The color a pale blue. The head, neck, and whole upper part of the bird is of an agreeable reddifh brown: the throat, breaft and belly of the fame color, but paler: the legs of a pale blue; but the webs of the feet black.

This fpecies, he informed us, was killed in Lincolmbire. We do not find it mentioned by any writer, except Linncus, who toke his defcription from Rudbeck's paintings; and adds, that it is found, though rarely, in the Sroedijh rivers.

Anas fiftularis (ein Pfeifente)
Gefner av. 121.
Penelope. Aldr. av. III. 92.
Wigeon, or Whewer. Wil. orn. 375.
Raii fyn. av. 146.
Anas penelops. Lin. fyjt. 202.

Wriand. Faun. Suec. Sp. 124.

Anas fiftularis, le Canard fiffleur. Brifon av. VI. 391. tab. 35.fg. 2 :
Eiffent mit weiffer platten. Kram. 342.
Danis Bles-And. Drunnich, 72.

Br. Zool. 157. add. plates.

T
HE wigeon weighs near twenty-three ounDescrip. ces : the length is twenty inches; the breadth R r 4 two
two feet three. The bill is lead colored; the end of it black; the head, and upper part of the neck is of a bright light bay; the forehead paler, in fome almoft white: the plumage of the back, and fides under the wings are elegantly marked with narrow, black and white undulated lines: the breaft is of a purplifh hue, which fometimes though rarely is marked with round black fpots: the belly white : the vent feathers black. In fome birds the coverts of the wings are almoft wholly white; in others of a pale brown, edged with white: the greater quil feathers are durky; the outmoft webs of the middle feathers of a fine green, the tips black; the laft are elegantly frriped with black and white. The two middle feathers of the tail are longer than the others, black and fharp pointFemale. ed; the reft afh colored: the legs dufky. The head of the female is of a rufty brown, fpotted with black; the back is of a deep brown, edged with a paler: the tips of the leffer quil feathers white: the belly white.
287. Bima- HE HE length is twenty inches; extent twentyculated.
 five and a half. Bill a deep lead color: nail black.

Crown, brown changeable with green, ending in a ftreak of brown at the hind part of the head, with a fmall creft. Between the bill and the eye, and

## SCAUP DUCK.



BIMACULATED DUCK.

N. 287.

Class II. GA D WA L L.
and behind each ear, a ferruginous foot. The frt round : the laft oblong and large. Throat of a fine deep purple. The reft of the head of a bright green, continued in freaks down the neck. Breaft a light ferruginous brown, fpotted with black: hind part of the neck, and back, dark brown waved with black.

Coverts of the wings af colored: lower coverts freaked with rut color: fcapulars cinereous: quil feathers brownifh cinereous. Secondaries of a fine green, ending in a fade of black, and edged with white.

Coverts of the tail a deep changeable green. Twelve feathers in the tail: two middlemoft black; the others brown edged with white. Belly duke, finely granulated. Legs fall, and yellow. Webs dufy.

Taken in a decoy near Communicated to me by
in 1771.
Bore, Eq.

Anas ftrepera (in Leiner). Anas ftrepera. Lin, Sole. 200.

Gefner ard. 121.
Ald. av. III. 97.
Gadwall, or Gray. Wile. on. 374.

Rail Syn. av. 145.
Le Chipeau. EBrifon av. VI. 339. tab. 33. fig. 1.

Faun. Suec. Sp, 121.
288. GAD-
wall.
Cimbris Knarre-Gaas. Branmich, 9:.

$$
\text { Br. Zool. } 157^{\circ}
$$

Grave mittel-ente . Frifch, II. 168.

T HIS species is rather inferior in frize to the Mescrif. wigeon. The bill is two inches long, black, and
and flat; the head, and upper part of the neck, are of a reddifh brown, fpotted with black; the lower part, the breaft, the upper part of the back, and the fcapulars, are beautifully marked with black and white lines; the belly is of a dirty white; the rump above and below is black; the tail afh colored, edged with white; the coverts on the ridge of the wing are of a pale reddifh brown; thofe beneath are of purplifh red, the loweft of a deep black: the greater quil-feathers are dufky: the inner web of three of the leffer quil-feathers are white; which forms a confpicuous fpot; the legs are orange colored. The breaft of the female is of a reddifh brown, fpotted with black: the back of the fame color; and though it has the fame marks on the wings, they are far inferior in brightnefs to thofe of the male.
289. Garga- La Sarcelle. Bulon av. 175. Krickantl. Kram. 343.
ney. Querquedula varia. Gefiner Anas Querquedula. Lin. Jyfe. av. 107. 203.

Scavolo, Cercevolo, Garga- Faun. Suec. Sp. 128. nello. Aldr. av. III. 89, go. Kriech-Ente. Frijch, II. 176. TWil. orn. 377.
Querquedula prima Aldr. Raii Jyn. av. 148*.
La Sarceile. Brifon av. VI. Norvegis Krek-And. 2uibufd. Saur-And. Brumnich, 81. Br. Zool. 158. Scopoli, No. 75. 427. tab. 39.

Descrip. THE length of this fpecies is feventeen inches; the extent twenty-eight. The bill is of

* Mr. Ray, in his $\sqrt{\mathrm{j} n}$. av. 147 . defrribes a duck under the name of Pbafeas; in Yorkßire it is called the widgeon: he fays,


## GARGANE Y.



FRMALE GARGANEY.


Class II. $G$ A $R$ G A N E Y.
of a deep lead color; the crown of the head is dufky, marked with oblong ftreaks; on the chin is a large black fpot; from the corner of each eye is a long white line, that points to the back of the neck: the cheeks, the upper part of the neck, are of a pale purple, marked with minute oblong lines of white, pointing downwards; the breaft is of a light brown, marked with femicircular bars of black: the belly is white; the lower part and vent varied with fpecks, the bars of a dufky hue; the coverts of the wings are grey; but the loweft are tipt with white; the firft quil-feathers are afh colored; the exterior webs of thofe in the middle green; the fcapulars are long and narrow, and elegantly ftriped with white, ah color, and black; the tail dufky: the legs lead color.

The female has an obfcure white mark over the eye; the reft of the plumage is of a brownin afh color, not unlike the hen teal, but the wing wants the green fpot, which fufficiently diftinguifhes thefe birds.

In many places thefe birds are called the Summer Teal.
fays, the head and neck are brown, fotted with triangular black marks: the body, wings, and tail dufky, edged with a paler color: in the wings is a double line of white; belly white : bill and legs blue. We fufpef it to be a joung bird of this fpecies, but wait for further information before we can determine it,
290. Teal. Querquedula. Gefner av. 106. Anas Crecca. Lin. Syf. 204. Garganei. Aldr. av. III. 90. Arta, Kræcka. Faun. Suec. Wil. orn. 377.
Raii Syn. av. 147.
La petite Sarcelle, Brifon av. VI. 43 6. tab. 40. fig. 1.

Rothantl, Pfeiffantl. Kram. 343. Spiegel-Entlein. Frich, II. 174.

Descrif. THE Teal weighs about twelve ounces: the length is fourteen inches; the breadth twen-ty-three: the weight of a drake twelve ounces; of a duck nine: the bill black: the head, and upper part of the neck are of a deep bay: from the bill to the hind part of the head is a broad bar of gloffy changeable green, bounded on the lower fide by a narrow white line: the lower part of the neck, the beginning of the back, and the fides under the wings, are elegantly marked with waved lines of black and white.

The breaft and belly are of a dirty white; the firft beautifully fpotted with black : the vent black : the tail fharp pointed, and dufky: the coverts of the wings brown: the greater quil-feathers dufky; the exterior webs of the leffer marked with a gloffy green fpot; above that another of black, and the tips white: the irides whitin; the legs durky. The female is of a brownifh afh color, fpotted
Class II. T E A L: 607
with black; and has a green fpot on the wing like the male.

By the defcription Mr. Willugbby has left of Sumarr the Summer Teal, p. 378. we fufpect that it differs Tbal。 not in the fpecies from the common kind, only in fex. Linnceus hath placed it among the birds of his country*; but leaves a blank in the place of its refidence; and hath evidently copied Mr. Willugbby's imperfect defcription of it: and to confirm our fufpicion that he has followed the error of our countryman; we obferved that a bird fent us from the Baltic fea, under the title of anas circia, the Summer Teal of Limncus, was no other than the female of our teal.

\author{

* Fauma Suecica, fp. 130.
}
XLVIII. BILL ftrong, ftrait; end either hooked or floping. CORVONOSTRILS, either totally wanting, or fmall, and placed in a longitudinal furrow.
FACE naked.
GULLET naked, capable of great diftenfion. TOES, all four webbed.

291. Corvo- Mergus Plinii lib. x. c. 3今.
rant.
Le Cormorant. Belon a.v. 16 I.

Corvus aquaticus, Carbo aquaticus. 136.
Phalacrocorax. Gefner av. 683. 350.

Aldi. av. III. 108.
The Cormorant. Wil. arn. 329.

Raii fyn. av. 122.
Pelecanus Carbo. Lin. Syj. Br. Zool. 159. Scopoli, No. 216.
N. Com. Petr. IV. 423.

Le Cormoran. Brifion av. VI. 5 11. tab. 45. The Male.
Norvegis Skarv, Strand-Ravn. Danis Aalekrage. IJandis Skarfur. Brunnich, 120, 121.

Scharb, or See-Rabe. Frifch, II. 187.
98.

Descrip.

KHAVE weighed a bird of this fpecies that exceeded feven pounds : the length three feet four: the extent four feet two: the bill dunky, five inches long, deftitute of noftrils; the bafe of the lower mandible is covered with a naked yellowifh fikin, that extends under the chin, and forms a fort of pouch: a loofe flsin of the fame color

* The learned Dr. Kay, or Caius, derives the word Corvorant, from Corvus coorans, from whence corruptly our word Cormorent. Coii opufc. 99.
reaches from the upper mandible round the eyes, and angles of the mouth: the head and neck are of a footy blacknefs; but under the chin of the male the feathers are white: and the head in that fex is adorned with a fhort loofe pendent creft; in fome the creft and hind part of the head are ftreaked with white. The coverts of the wings, the fcapulars, and the back, are of a deep green, edged with black, and gloffed with blue : the quilfeathers and tail dunky: the laft confifts of fourteen feathers: the breaft and belly black: in the midft of the laft is often a bed of white: on the thighs of the male is a tuft of white feathers: the legs are fhort, ftrong, and black; the middle claw ferrated on the infide: the irides are of a light afh color.

Thefe birds occupy the higheft parts of the cliffs that impend over the fea: they make their nefts of fticks, fea tang, grafs, \&cc. and lay fix or feven white eggs of an oblong form. In winter they difperfe along the fhores, and vifit the freih waters, where they make great havoke among the fifh. They are remarkably voracious, having a moft fudden digeftion, promoted by the infinite quantity of fmall worms that fill their inteftines. The corvorant has the rankeft and moft difagreeable fmell of any bird, even when alive. Its form is difagreeable; its voice hoarfe and croaking, and its qualities bafe. No wonder then that Milton fhould make Satan perfonate this bird, to furvey undelighted
undeligbted the beauties of Paradife: and fit devifing death on the tree of life?.

Thefe birds have been trained to fifh like falcons to fowl. Whitelock tells us, that he had a caft of them monned like hawks, and which would come to hand. He took much pleafure in them, and relates, that the beft he had was one prefented him by Mr. Wood, Mafter of the Corvorants to Charles I. It is well known that the Cbinefe make great ufe of thefe birds, or a congenerous fort, in fifhing; "and that not for amufement, but profit $\dagger$.
292. Shag. Corvus aquaticus minor. Aldr. Le petit Cormoran. Brifon av. III. 109. av. VI. 516.
The Shag, called in the Pelecanus graculus. Lin. Sy. North of England the Crane. Wil. orn. 330.
Corvus aquaticus minor. Graculus palmipes dictus. Raii Jin. av. 123. 217.

Phalacrocorax criftatus. Norveggis Top Skarv. Brunnicio ornith. 123.
Br. Zool. 159.

Descrip. HE fhag is much inferior in fize to the corvorant : the length is twenty-feven inches; the breadth three feet fix: the weight three pounds three quarters. The bill is four inches long, and more flender than that of the preceding: the head is adorned with a creft two inches long, pointing

> * Paradie Loft, Book IV. 1. 194, scc. + Diubalde I. 316.

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backward: the whole plumage of the upper part of this bird is of a fine and very fhining green, the edges of the feathers a purplifh black; but the lower part of the back, the head, and neck, wholly green : the belly is dufky: the tail confifts of only twelve feathers, of a dulky hue, tinged with green; the legs are black, and like thofe of the corvorant. During my voyage among the Hebrides, I faw feveral birds of this fpecies fhot: they agreed in all refpects, but in being deftitute of a creft; whether they were females, a variety, or diftinct fpecies, muft be left to future naturalifts to determine.

Both thefe kinds agree in their manners, and breed in the fame places: and, what is very ftrange in webbed footed birds, will perch and build in trees: both fwim with their head quite erect, and are very difficult to be fhot; for, like the Grebes and Divers, as foon as they fee the flafh of the gun, pop under water, and never rife but at a confiderable diftance.

We are indebted for this bird to the late Mr . William Morris of Holybead, with whom we had a conftant correfpondence for feveral years, receiving from that worthy man and intelligent naturalift, regular and faithful accounts of the various animals frequenting that vaft promontory.
293. Gan- Anfer Baflanus five Scoticus. Solan Goofe. Martin's voy. NET.

Gefner av. 163.
Aldr. av. 68.
Sula. Hoieri Cluf. ex. 367 Hector Boeth. 6.
Soland Goofe. Wil. orn. 328. Raii fyn. av. 122. Itin. 191. 269. 279.
Sibb. bift. Scat. 20. tab. 9. Sibb. bift. Fife. 45. 47. Jaen van Gent. Míariin's Spitzberg. 97.

St. Kilda. 27.
Defrript. Weft. Ifles. 281 .
Macauly's bift. St. Kilda. 133. Sula Baffana, le Fou de Baffan. Brifjon av. VI. 503. tab. 44.
Pelecanus Baffanus. Lin. fyfo 217.

Norvegis Sule, Hav-Sul. Brunnich, 124.
Br. Zool. 160.

Descrip. HHS fpecies weighs feven pounds: the length is three feet one inch; the breadth fix feet two inches. The bill is fix inches long, ftrait almoft to the point, where it inclines down; and the fides are irregularly jagged, that it may hold its prey with more fecurity: about an inch from the bafe of the upper mandible is a fharp procels pointing forward; it has no noftrils; but in their place a long furrow, that reaches almoft to the end of the bill: the whole is of a dirty white, tinged with afh color. The tongue is very fmall, and placed low in the mouth : a naked fkin of a fine blue furrounds the eyes, which are of a pale yellow, and are full of vivacity : this bird is remarkable for the quicknefs of its fight: Martin tells us that Solan is derived from an Irifs word expreflive of that quality.

## GANNE T




From the corner of the mouth is a narrow nip of black bare fkin, that extends to the hind part of the head: beneath the chin is another, that like the pouch of the Pelecan, is dilatable, and of fize fufficient to contain five or fix entire herrings; which, in the breeding feafon, it carries at once to its mate or young.

The neck is very long: the body flat, and very full of feathers: the crown of the head, and a fmall fpace on the hind part of the neck is buff colored: the reft of the plumage is white: the baftard wing and greater quil-feather excepted, which are black; the legs and toes are black; but the fore part of both are marked with a ftripe of fine pea green. The tail confifts of twelve fharp pointed feathers, the middle of which is the longeft.

The young birds, during the firft year, differ greatly in color from the old ones; being of a dufky hue, fpeckled with numerous triangular white fpots; and at that time refemble in colors the jpeckled Diver. Each bird, if left undifturbed, would only lay one egg in the year; but if that be taken away, they will lay another; if that is alfo taken, then a third; but never more that feafon. A wife provifion of nature, to prevent the extinction of the fecies by accidents, and to fupply food for the inhabitants of the places where they breed; their egg is white, and rather lefs than that of the common goofe: the neft is large, and formed of any thing the bird finds floating on the Sf2 water,

NEST.

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\$ 12
$$

water, fuch as grafs, fea plants, fhavings, \&cc. Thefe birds frequent the Ifle of Ailfa, in the Firth of Clyde; the rocks adjacent to St. Kilda, the Stack of Soulikery, near the Orkneys; the Skelig Iles, off the coafts of Kerry, Ireland *, and the Bafs Ifle, in the Firth of Edinburgh: the multitudes that inhabit thefe places are prodigious. Dr. Harvey's elegant account of the latter, will ferve to give fome idea of the numbers of thefe, and of the other birds that annually migrate to that little fpot.
"There is a fmall iland, called by the Scotch, "Bafs Illand, not more ikan a mile in circumfe"rence; the furface is almof wobolly covered du"ring the months of May and June with nefis, eggs, "and young birds; So that it is fcarcely polfible to "walk without treading on them: and the focks of " birds in fligbt are fo prodigious, as to darken the " air like clouds; and tbeir noije is fuch, that you can"not, without difficulty, bear your next neigbbour's "voice. If you look dower upon the Sea, from the "top of the precidice, you will fee it on every fide "covered with infinite numbers of birds of different " kinds, Jwimming and bunting for their prey: if in "Sailing round the ifland you Jurvey the banging cliffs, " you may see in every eragg or fifure of the broken

[^19]"rocks, innumerable birds of various forts and fizes, " more than the Atars of beaven when viewoed in a " Serene nigbt: if from afar you fee the diftant "flocks, eitber flying to or from the ihland, you would "imagine them to be a vaft fwarm of bees *."

Nor do the rocks of St. Kilda feem to be lefs frequented by thefe birds; for Martin affures us, that the inhabitants of that fmall ifland confume annually no lefs than 22,600 young birds of this fpecies, befides an amazing quantity of their eggs; thefe being their principal fupport throughout the year; they preferve both eggs and fowls in fmall pyramidal ftone buildings, covering them with turf athes, to preferve them from moifture. This is a dear bought food, earned at the hazard of their lives, either by climbing the moft difficult and

* Eft infula parva, Scoti Bafe nominant, baud amplius mille pafuum circuitu amplitudo ejus clauditur. Hujus infula fuperfcies, menfibus Maio \& $\mathfrak{F}$ funio nidis ovis pullifque propemodum tota inftrata eff, adeo ut vix, pree corum copia pedem liberè ponere liceat: tantaque fupervolantium turba, ut nubium inftar, Solem columque auferant : tantufque vociferantium clangor $\mathcal{G}^{\circ}$ frepitus, ut propè alloquentes vix audias. Si fubjectum mare inde, tanquam ex edita turri छo altifimo pracipitio deppexeris, idem quoquo versûm, infinitis diverforum generum avibus natantibus prcedaque inbiantibus, opertum videas. Si circumnavigando imminentem clivum fufpicere libuerit; videas in fingulis prarupti loci crepidinibus $\mathfrak{E}$ rece $\int$ libus, avium cujuflibet generis $\mathcal{O}^{\circ}$ magnitudinis, ordines innumerabiles, plures fanè quam nocze, fereno call, felle con/piciuntur. Si advolantes avolante $\int q u e ~ e m i n u ̀ s ~ a d / p e x e r i s, ~$ apum profecto ingens examen credas. De generat. Animal. Ex ercit. 11 .
narrow paths, where (to appearance) they can barely cling, and that too, at an amazing height over the raging fea: or elfe being lowered down from above, they collect their annual provifion, thus hanging in midway air; placing their whole dependance on the uncertain footing of one perfon who holds the rope, by which they are furpended at the top of the precipice. The young birds are a favorite difh with the Nortb Britons in general: during the feafon they are conftantly brought from the Ba/s IJle to Edinburgh, fold at 2od. a piece, are roafted, and ferved up a little before dinner as a whet.

The Gannets are birds of paffage. Their firft appearance in thofe iflands is in Marcb; their continuance there till Auguf or September, according as the inhabitants take or leave their firft egg; but in general, the time of breeding, and that of their departure, feems to coincide with the arrival of the herring, and the migration of that fifh (which is their principal food) out of thofe feas. It is probable that thefe birds attend the herring and pilchard during their whole circuit round the Britijb inlands; the appearance of the former being always efteemed by the fifhermen as a fure prefage of the approach of the latter. It migrates in queft of food as far fouth as the mouth of the Tiagus, being frequently feen off Lifoon during the month of December, plunging for Sardina, fifh refembling, if not the fame with our Pilcherd.

I have in the month of Auguft obferved in Cathne/s their northern migrations: I have feen them paffing the whole day in flocks, from five to fifteen in each : in calm weather they fly high; in ftorms they fly low and near the fhore; but never crofs over the land, even when a bay with promontories intervenes, but follow, at an equal diftance, the courfe of the bay, and regularly double every cape. I have feen many of the parties make a fort of halt for the fake of fifhing: they foared to a vaft height, then darting headlong into the fea, made the water foam and fpring up with the violence of their defcent; after which they purfued their route. I enquired whether they ever were obferved to return fouthward in the fpring, but was anfwered in the negative; fo it appears that they annually encircle the whole inland.

They are well known on molt of our coafts Name. but not by the name of the Soland-Goofe. In Cornwal and in Ireland they are called Gannets; by the Welfh Gan. The excellent Mr. Ray fuppofed the Cornifs Gannet to be a fpecies of large Gull; a very excufeable miftake, for during his fix months refidence in Cornzal, he never had an opportunity of feeing that bird, except flying; and in the air it has the appearance of a gull. On that fuppofition he gave our Skua, p. 417. the title of Cataraita, a name borrowed from Arifotle ${ }^{*}$, and which admirably expreffes the rapid defcent of this bird on

[^20]its prey. Mr. Moyle firft detected this miftake*; and the Rev. Doctor William Borlafe, by prefenting us with a fine fpecimen of this bird, confirms the opinion of Mr. Moyle; at the fame time he favored us with fo accurate an account of fome part of the natural hiftory of this bird, that we fhall ufe the liberty he indulged us with, of adding it to this defcription.
" The Gannet comes on the coafts of Cornrwal " in the latter end of fummer, or beginning of au" tumn; hovering over the fhoals of pilchards that "come down to us through St. George's Cbannel "from the northern feas. The Gannet feldom "comes near the land, but is conftant to its prey, " a fure fign to the fifhermen that the pilchards are " on the coafts; and when the pilchards retire, ge" nerally about the end of November, the Gannets " are feen no more. The bird now fent was killed " at Cbandour, near MountJbay, Sept. 30, 1762, af"ter a long ftruggle with a water fpaniel, affifted " by the boatmen; for it was ftrong and pugna" cious. The perfon who took it obferved that it " had a tranfparent membrane under the eye-lid, " with which it covered at pleafure the whole eye, " without obfcuring the fight or hhutting the eye" lid; a gracious provifion for the fecurity of the "eyes of fo weighty a creature, whofe method of "taking its prey is by darting headlong on it
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\text { * Moyle's Works, I. } 424 .
$$
" from a height of a hundred and fifty feet or more " into the water. About four years ago, one of "thefe birds flying over Penzance, (a thing that " rarely happens) and feeing fome pilchards lying " on a fir-plank, in a cellar ufed for curing fifh, "darted itfelf down with fuch violence, that it " ftruck its bill quite through the board (about " an inch and a quarter thick) and broke its neck."

Thefe birds are fometimes taken at fea by a deception of the like kind. The fifhermen faften a pilchard to a board, and leave it floating; which inviting bait decoys the unwary Gannet to its own deftruction.

In the Cataracta of fuba* may be found many characters of this bird: he fays, that the bill is toothed: that its eyes are fiery; and that its color is white: and in the very name is expreffed its furious defcent on its prey. The reft of his accounts favors of fable.

We are uncertain whether the Gannet breeds in any other parts of Europe befides our own illands; except (as Mr. Ray fufpects, the Sula, defcribed in Clufius's Exotics, which breeds in the Ferroe Ifes) be the fame bird. In America there are two fpecies of birds of this genus, that bear a great refemblance to it in their general form and their manner of preying. Mr, Catefby has given the figure of the head of one, which he calls the Greater

[^21]Booby;

Booby; his defcription fuits that of the young Gannet; but the angle on the lower mandible made us formerly fufpect that it was not the fame bird; but from fome late infornations we have been favored with, we find it is common to both countries, and during fummer frequents North America. Like the Penguin, it informs navigators of the approach of foundings, who on fight of it drop the plummet. Linncous claffes our bird with the Pelecan; in the tenth edition of his fyftem, he confounds it with the bird defcribed by Sir Hans Sloane, hift. Fam. vol. I. p. 3r. preface, whofe colors differ from the Gannet in each ftage of life: but in his laft edition he very properly feparates them. We continue it in the fame clafs, under the generical name of Corvorants, as more familiar to the Englijb ear than that of Pelecan.

APPENDIX.
(c)

ROUGH LEG'D FALCON.


## A P P E N D I X.

Birds now extinct in Great Britain, or fuch as wander here accidentally.

## $\begin{array}{lllllllll}\mathrm{L} & \mathrm{A} & \mathrm{N} & \mathrm{D} & \mathrm{B} & \mathrm{I} & \mathrm{R} & \mathrm{D} & \mathrm{S} .\end{array}$

## I. ROUGH LEG'D FALCON.

THIS fpecies is a native of Denmark, but was fhot in and is preferved in the Leverian MuJeum.

Its length is two feet two inches: that of the wing, when clofed, eighteen inches: the bill dufky; the cere yellow : the head, neck, and breaft of a yellowifh white, marked in fome parts with oblong brown ftrokes: the belly of a deep brown: thighs and legs of a pale yellow, marked with brown: the fcapulars blotched with brown and yellowifh white: coverts of the wings brown, edged with ruft: ends of the primaries deep brown; the lower parts white: the extreme half of the tail brown, tipt with dirty white : that next to the body white. Legs covered with feathers as low as the feet: the feet yellow.
II. ROLLER.

## II. $R ~ O L L E R$.

Roller. Will. cir. 13I.
Garrulus argentoratenfis. Rain Syn. avo. 41.
Galgulus, te Rollier. Bridoon av. II. 64. tab. 5 .
Coracias Garrula. Lint, Nit. 159.

Spranfk Kaka, Blakraka, Allekraka. Faun. Suer. Jp. 94. Ede. 109.
The Shagarag. Sbarv's Tiaels. 252.
Ellekrage. Brumnick, 35 . Birk-Heker; Blaue-Racke. Erich, I. 57.

OF there birds we have heard of only two being feen at large in our inland; one was Shot near Helfton-bridge, Cormwal, and an account of it transmisted to us by the Reverend Doctor William Borla fe. They are frequent in molt parts of Europe, and we have received them from Denmark.

In lize it is equal to a jay. The bill is black, ftrait, and hooked at the point; the bale befet with briftes: the face about the eyes is bare and naked: behind each ear is alfo another bare foot, or protuberance : the head, neck, breaft, and belly are of a light bluifh green: the back, and fathers of the wings next to it, are of a reddifn brown: the coverts on the ridge of the wings are of a rich blue; beneath them of a pale green: the upper part and tips of the quil-feathers are dufky; the lower parts of a fine deep blue; the rump is of the fame color: the tail confilts of twelve feathers, of which the outmost on each side are confiderably longer ${ }^{-}$



## A P P E N D I X.

longer than the reft; are of a light blue, and tipt with black, beneath that a fpot of deep blue; as is the cafe with fuch part of the quil-feathers that are black above : the other feathers of the tail are of a dull green : the legs fhort, and of a dirty yellow.

It is remarkable for making a chattering noife, ${ }_{2}$ from which it is by fome called Gorrulus.

## III. N U T C R A C K ER.

Caryocatactes. Wil. orn. 132, Notwecka, Notkraka. Faure. Raii Syn. a.v. $42 . \quad$ Suec. $\mathrm{S}_{\mathrm{P}} 19$.
Nucifraga, le Cafie-noix. Tannen-Heher (Pine-Jay)
Brifon av. II. 59. tab. 5. Frifch, 1. 56. Corvus Caryocatactos. Lin. Edw. 240.
fyyt. 157.
Danis Noddekrige. Norvegis
Not-kraake. Brunnick, 34.

THE fpecimen we toke our defcription from, is the only one we ever heard was fhot in thefe kingdoms; is was killed near Moftyn, Flintßire, OEFOber 5, 1753.

It was fomewhat lefs than the jackdaw : the bill ftrait, ftrong, and black: the color of the whole head and neck, breaft and body, was a rufty brown: the crown of the head and the rump were plain: the other parts marked with triangular white fpots : the wings black: the coverts fpotted
in the fame manner as the body: the tail rounded at the end, black tipt with white : the vent-feathers white: the legs dufky.

This bird is alfo found in moft parts of Europe. We received a fpecimen from Denmark, by means of Mr. Brunnich, author of the Ornitbologia Borealis, a gentleman to whofe friendfhip we owe a numerous collection of the curiofities of his country.

It feeds on nuts, from whence the name.

## IV. The O R I O L E.

Oriolus Galbula. Lin. Syf. The Witwal. Wil. orn. 198. 160. Faun. Suec. No. 95. Raii Jyn. av. 68. Scopoli, No. 45. Kramer, 360. Le Loriot. Brifon II. 320. Oriolus. Gefner av. 713. Aldr. Golden Thruh. Edw. 185. av. I. 418.

History. HIS beautiful bird is common in reveral parts of Europe; where it inhabits the woods, and hangs its neft very artificially between the flender branches on the fummits of antient oaks. Its note is loud, and refembles its name. I have heard of only one being fhot in Great Britain, and that in South Wales.
Descrip. It is of the fize of a thrufh : the head and whole body of the male is of a rich yellow: the bill red;

## THE ORIOLE M. $\&$ F.




## A $\quad \mathrm{P} \quad \mathrm{P} \quad \mathrm{E} \quad \mathrm{N} \quad \mathrm{D} \quad \mathrm{I}$ X.

from that to the eye a black line : the wings black, marked with a bar of yellow : the ends of the feathers of the fame color: the two middle feathers of the tail black; the reft black, with the ends of a fine yellow: the legs dufky.

The body of the female is of a dull green: the wings dukky : the tail of a dirty green : the ends of the exterior feathers whitifh.

## V. The ROSE COLORED OUSEL.

Merula rofea. Raii Jyn. av. Brifon av. II. 250.
67. Aldr. av. II. 283. Turdus rofeus. Lin. Syf. 294. Wil. orn. 194.
Le Merle Couleur de Rofe. Edw. 20.

MR. Edwards difcovered this beautiful bird twice in our ifland, near London, at Norwoods, and another time in Norfolk. The figure of this and the preceding, were copied, by permiffion, from his beautiful and accurate defigns, which we gratefully acknowledge, as well as every other affiftance from our worthy friend; whofe pencil has done as much honor to our country, as the integrity of his heart, and communicative difpofition, has procured him efteem from a numerous and refpectable acquaintance.

The fize of this bird appears by the print to be Descrif. Vol, II. Tt equal
equal to that of a fare. The bill at the point is black, at the bafe a dirty flefh color: the head is adorned with a creft hanging backwards. The head, creft, neck, wings, and tail are black, gloffed with a changeable blue, purple and green: the breaft, belly, back, and leffer coverts of the wings, are of a rofe color, mixed with a few fpots of black : the legs of a dirty orange color.

This bird is found in Lepland, Italy, and Syria. About Aleppo it is called the locuf bird, poffibly from its food; and appears there only in fummer *. In Italy it is ftyled the fea-ftare; and as Aldrovandus fays, frequents heaps of dung $\dagger$. And Mr. Ekmarck $\ddagger$ informs us, that it refides in Lapland, never paffing beyond the limits of that frozen region. We have mentioned very oppofite climes, but believe it to be a fcarce bird in all, at left in Europe.

> * Rufel's bif. Alep. 70. Tavornier, 146. + Aldr. av. If. 28j.
> $\ddagger$ Migr. av. Amen. acad. IV. 594.


## A P P E N D I X.

## W A TER FO W L.

## VI. The $\mathrm{C} R \mathrm{~A} \mathrm{~N}$ E.

Le Grue. Belonav. 187. Grus. Gefner av. 528.
A Crane. Turner.
Gru, Grua. Aldr. av. III. 132.

Wil. orn. 274.
Raii Syn. arv. 95.
La Grae. Brifion av. V. 374.
tab. 33. Kranich. Kram. 345. Kranich. Frijch, II. 194. Ardea Grus. Lin. fyf. 234: Trana. Faun. Suec. /p. 16I. Danis Trane. Brunnich. Br. Zool. 118,

THiS fpecies was placed, in the folio edition of the Zoology, among the Britib birds, on the authority of Mr. Ray; who informs us, that in his time, they were found during the winter in large flocks in Lincolnfire and Cambridgefbire: but on the ftricteft enquiry we learn, that at prefent the inhabitants of thofe counties are fcarcely acquainted with them; we therefore conclude, that there birds have forfaken our inland. A fingle bird was killed near Cambridge about three years ago, and is the only inftance I ever knew of the crane being feen in this ifland in our time. They were formerly in high efteem at our tables, for the delicacy of their flefh; for they feed only on grain, herbs, or infects; fo have nothing of the ranknefs of the pifcivorous birds of this genus.

Descrip. Its weight is about ten pounds; the length fix feet; the bill of a darkifh green, four inches long; and a little depreffed on the top of the upper mardible: the top of the head covered with black briftles; the back of the head bald and red, beneath which is an afh colored fpot: from the eyes, of each fide, is a broad white line the whole length of the neck: the fore part as far as the breaft is black: the quil-feathers are black: the tail afh colored, tipt with black: all the reft of the plumage is afh colored. The legs are black.

No author, except Gefner, takes notice of a large tuft of feathers that fpring out of one pinion on each wing: they are unwebbed, and finely curled at the ends, which the birds have power to erect or deprefs; when depreffed they hang over and cover the tail. Gefner tells us, that thefe feathers ufed in his time to be fet in gold, and worn as ornaments in caps. Though this fpecies feems to have forfaken thefe iflands at prefent, yet it was formerly a native, as we find in Willugbly, p. 52. that there was a penalty of twenty-pence for deftroying an egg of this bird; and Turner relates, that he has very often feen their young in our markhes. Marfigli* fays, that the crane lays two egogs like thofe of a goofe, but of a bluifh color.

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## VII. The $\mathrm{E} G \mathrm{R} \mathrm{E}$ T.

Leffer White Heron. Wil. Dwarf Heron. Barbot, 29.
orn. 280.
Ardea Garzetta, Lin. fyy. 237.

Ardea Alba minor. Raii §yn. L'Aigrette. Brifon av. V. 43 I .
Kleiner Weiffer Rager. Kram. 345 . av. 99.

WE once received out of Anglefea, the feathers of a bird hot there, which we fufpect to be the Egret; this is the only inftance perhaps of its being found in our country. That formerly this bird was very frequent here, appears by fome of the old bills of fare: in the famous fealt of Archbiihop Nevill, we find no lefs than a thoufand Afterides*, Egrets or Egrittes, as it is differently fpelt. Perhaps the efteem they were in as a delicacy during thofe days, occafioned their extirpation in our iflands; abroad they are fill common, efpecially in the fouthern parts of Europe, where they appear in flocks.

The Egret is a moft elegant bird; it weighs a- Descrif. bout one pound; the length is twenty-four inches, to the end of the legs thirty-two: the bill is fender and black: the fpace about the eyes naked and

* Godrwin de Praful. Angl. com. Leland's Collect.
green: the irides of a pale yellow: the head adorned with a beautiful creft, compofed of fome fhort, and of two long feathers, hanging backward; thefe are upwards of four inches in length: the whole plumage is of a refplendent whitenefs : the feathers on the breaft, and the fcapulars, are very delicate, long, flender, and unwebbed, hanging in the lighteft and loofef manner: the legs are of a dark green almof black: the fcapulars and the creft were formerly much efteemed as ornaments for caps and head-pieces; fo that digrette and egret came to fignify any ornament to a cap, though originally the word was derived from aigre, a cauje de $l^{2}$ nigrour de fa voin *.

We never met with this bird or the crane in England, but formed our defcriptions from fpecimens in the elegant cabinet of Doctor Mauduit in Paris.

[^23]VIII. The



## A $\quad \mathrm{P} \quad \mathrm{P} \quad \mathrm{E} \quad \mathrm{N} \mathrm{D} I \mathrm{X}$.

## VIII. The LITTLEBITTERN.

Ardeola (le Blongios) Brif- Moofs-kuh.) Kram. 348. fon av. V. 497. tab. 40. Boonk or long Neck. Sbaw's fig. 1. Travels, 255.
Ardea vertice dorfoque ni- Arḍa Minuta. Lin. fyf. 240. gris, collo antice et alarum Kleiner Rohrdommel. Frifch, tectricibus lutefcentibus. (Stauden Ragerl, Kleine Edw. av. 275.

THIS fpecies was fhot as it perched on one of the trees in the Quarry or public walks in Sbrevefoury, on the banks of the Severn; it is frequent in many other parts of Europe, but the only one we ever heard of in England.

The length to the tip of the tail was fifteen inch- Descris. es, to the end of the toe twenty. The bill to the corners of the mouth two inches and a half long, dufky at the point; the fides yeilow; the edge jagged: the bulk of the body not larger than that of a fieldfare.

The top of the head, the back, and tail were black, gloffed with an obfcure green : the neck is very long, the forepart of which, the breaft and thighs, were of a buff color: the belly and vent-feathers white : the hind-part of the neck bare of feathers, but covered with thofe growing on the fide

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of it: on the fetting on of the wing is a large chefnut fpot: the leffer coverts of a yellowinh buff; the larger coverts whitifh : the web of that next the back half buff and half black: the quil-feathers black : the legs and toes dufky; and what is fingular in a bird of this genus, the feathers grow down to the knees: the infide of the middle claw is ferrated.

For this defcription, and the drawing, we are indebted to Mr. Plymzey.

## IX. The SPOON-BILL.

Pelecanus feu Platea. Gefner av. 666.
Albardeola. Aldr. av. III. 160.

Spoon-bill. Wil. orn. 288. Lofrel-gans. Scopoli, No. 115 .

AFLOCK of thefe birds migrated into the marhes near Yarmouth, in Norfolk, in April, 1774. Thefe birds inhabit the continent of Europe. In Mr. Rey's time, they bred annually in a wood at Sevenbuys, not remote from Leyden: but the wood is now deftroyed; and there birds, with feveral others that formerly frequented the counfry, are at prefent become very rare.

## SPOONBILL。



Mr. Fofeph Sparfball of Yarmouth favored me with the following very accurate defcription:

The length from the end of the beak to the extremity of the middle toe forty inches: breadth of the wings, extended, fifty-two inches: bill, length of the upper mandible feven inches; of the lower fix three-fourths ditto : breadth of the fpoon, near the point, two inches; ditto of the nether mandible one inch feven-eighths: breadth of both, in the narroweft part, near the middle, three-fourths of an inch: a bright orange colored fpot, about the breadth of a fixpence, juft above the point of the upper mandible, which is a little hooked, or bent downward at its extremity. At the angles of the bill, on each cheek, a fpot of a bright orange color: the fkin between the fides of the lower mandible, and extending about three inches downward on the throat or neck, covered with very fine down, almoft imperceptible, which, with the fkin on that part, are of a very bright orange color: irides of the eyes a bright flame color, very lively and vivid: the whole bill (except the above fpot) of a fine fhining black: its upper furface elegantly waved with dotted protuberances: a depreffed line extending from the noftrils (which are three-eights of an inch long, and ficuate half an inch below the upper part of the bill) is continued round it about one eighth of an inch from its edge: its fubftance has fomething of the appearance of whale bone, thin, light, and elaftic. Infide
of the mouth a dark afh color, almoft black: the tongue (remarkably fingular) being very fhort, heart fhaped, and when drawn back, ferving as a valve to ciofe the entrance of the throat, which it feems to do effectually; when pulled forward has the appearance of a triangular button: the ears, or auditory apertures large, and placed an inch behind the angles of the mouth. Plumage of the whole body, wings, and tail whire: on the backpart of the head a beautiful creft of white feathers, hanging pendent behind the neck; their length about five inches; which, in the living fubject, gives it a very beautiful appearance.

Weight of the fowl, three days after killed, was three pounds and a half.

The legs black, their length fix inches, and thighs the fame; the latter naked about half their length; toes connected by a fmall web, extending to the firft joint on each.

No. 1.

## ADDITIONS to the HISTORY of THE HORSE。

HE reprefentative of this fpecies is a native of Temine, in Arabia Felix; the property of Lord Grofvenour, taken from a picture in poffeffion of his Lordhip, painted by Mr. Stubbs, an artift not lefs happy in reprefenting animals in their ftiller moments, than when agitated by their furious paffions; his matchefs paintings of horfes will be lafting monuments of the one, and that of the lion and panther of the other.

This horfe, by its long refidence among us, may be faid to be naturalized, therefore we hope to be excufed for introducing it here, notwithftanding its foreign defcent. From its great beauty it may be prefumed that it derives its lineage from Monaki Sbaduki, of the pure race of borfes, pureer than milk*.

* Vide the Arabian certificate, in a following note, for the meaning of this phrafe.


## A P P E N D I X.

Arabia produces thefe noble animals in the higheft perfection; firft, becaufe they take their origin from the wild unmixed breeds that formerly were found in the deferts *, which had as little degenerated from their primæval form and powers as the lion, tiger, or any other creature which fill remains in a ftate of nature unchanged by the difcipline of man, or harvefted provifion.

The Arabs place their chief delight in this animal; it is to them $\dagger$ as dear as their family, and is indeed part of it: men, women, children, mares, and foals all lie in one common tent, and they lodge promifcuoufly without fear of injury.

This
> * Leo Africanus, who wrote in the time of Leo X. fays, that in his days great numbers of wild horfes were found in the Numidian and Arabian Deferts, which were broke for ufe. He adds, that the trial of their fwiftnefs was made againft the Lant, or the Ofrich; and if they could overtake either of thofe animals, were valued at a hundred camels. Hiff. Africa, 339.
> $\dagger$ As a proof of this, receive the following lamentation of an Arab, obliged, thro' poverty, to part with his mare : My eyes, fays he, to the animal, my foul, muft I be fo unfortunate as to bave fold thee to fo many mafters, and not to keep thee myself? I ampoor, my Antelope. Youknow well enough, my boney, I kave brought thee up as my child; I never beat nor chid thee; I made as much of thee as ever I could for miy life. God preServe thee my deareft; thou art pretty; thou art lovely; God defend thee from the looks of the envious. To undertand the firft part of this fpeech, it muft be obferved, that it is ufual for

## A P P E N D I X.

This conftant intercourfe produces a familiarity that could not otherwife be effected; and creates a tractability in the horfes that could arife only from a regular good ufage; little acts of kindriefs, and a foothing language, which they are accuftomed to from their mafters: they are quite unacquainted with the fpur; the left touch with the ftirrup fets thefe airy courfers in motion; they fet off with a fleetnefs that furpaffes that of the Oftrich *, yet they are fo well trained as to fop in their moft rapid fpeed by the flighef check of the rider: there are fometimes inftances of their being mounted without either bridle or faddle, when they fhew fuch compliance to their rider's wiil, as to be directed in their courfe by the meer motion of a fwitch $\dagger$.
Paret in obsequium lente moderamine virge, Verbera funt pracepta fuga, funt verbera frana $\ddagger$.
Several things concur to maintain this perfection in the horfes of Arabia, fuch as the great care the Arabs take in preferving the breed genuine, by per. mitting none but ftallions of the firf form to have
many Arabs, of the poorer rank, to join in the purchafe of a horfe, the original owner generally retaining one fhare. This, as well as mof of the other particulars relating to the Arabian horfe, are taken from M. D'Arvieux's curious account of Arabia, p. 167, London, 1732.

[^24]accefs to the mares: this is never done but in the prefence of a witnefs, the fecretary of the Emir, or fome public officer; he afferts the fact, records the name of the horfe, mare, and whole pedigree of each, and thefe atteftations* are carefully preferved, for on thefe depend the future price of the foal.

The

* The reader is here prefented with an original atteitation, fome of which II. D'Arvieux fays have been preferved for above 500 years in the public records.

Taken before ABDORRAMAN, KADI of ACCA.

The Occafion of this prefent Writing or Infrument is that at Acca in the Houfe of Baid legal eftablifin'd Judge, appear'd in Court Thomas Usgate the Englifh Conful and with him Sbeikh Morad Ebn al Hajj Abdollah, Sbeikb of the County of Safad, and the faid Conful defir'd from the aforefaid Sbeikb proof of the Race of the Grey Horfe which he bought of him, and He affirm'd to be Ivionaki Sbaciubi ${ }^{*}$, but he was not fatisfied with this but defir'd the Tefimony of the Arcbs, who bred the Horie and knew how he came to Sbeikb Miorad; whereupon there appear'd certain Arabs of Repute whofe names are undermention'd, who teftified and declar'd that the Grey Horfe which the Conful formerly bought of Sheikb Morad, is Monaki Sbadikki of the pure Race of Horfes, purer than Milkt, and that the Beginning of the Affair

[^25]
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The Arabs, whofe riches are their horfes, take all imaginable care of them; they have it not in their power to give them grafs in their hot climate, except in the fpring; their conftant food is barley, and that given only in the night, being never fuffered to eat during the day.

In the day-time they are kept factled at the door of the tent, ready for any excurfion their mafters may make; the Arabs being fond of the chace, and live by the plundering of travellers. The horfes are never hurt by any fervile employ, never injured by heavy burthens, or by long journies, enjoy a pure dry air, due exercife, great temperance, and great care.
was, that Sbeikh Saleh, Sbeikh of Alsabal, bought him of the Arabs of the Tribe of al Mobammadot, and Sheikb Saleb fold him to Sbeikhb Morad Ebri al Hajj Abdiollah, Sbeikh of Safad, and Sheikh Morad fold him to the Conful aforefaid, when thefe Matters appear'd to us, and the Contents were known, the faid Gentleman defir'd a Certificate thereof, and Teftimony of the Witneffes, whereupon we wrote him this Certificate, for him to keep as a Proof thereof. Dated Friday 28 of i. e. 29 fanuary, the latter Rabi in the Year 1135.

## Witneffes,

> Sbeikh Jumat al Falibau of the Arabs of al Mobammadat. Ali Ebn T゙aleb al Kaabi. Ibrabim his Brother. Mobammed al Adbra Skeikh Alfarifat. Khamis al Kaabi.

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Every horfe in Arabia (except thofe which by way of contempt are called Guidich, or pack horfes) has a degree of good qualities fuperior to thofe of any other places; but it is not to be fuppofed, but that there are certain parts of that country, which have attained a higher perfection in the art of management than the others.

Thus we find by fome late information *, that Yemine in Arabia Felix, is at prefent in greac repute for its breed; for the jockies of that part have acquired fuch a fuperior name, as to be able to fell their three year old horfes for two or three hundred guineas a-piece, and when they can be prevailed on to part with a favorite fallion, they will not take lefs for it than fifteen hundred guineas. It is from this country that the great men in India are fupplied with horfes, for India itfelf is poffeffed of a very bad kind; thefe noble animals being much neglected there, from the conftant ufe of the Buffalo, not only in tillage, but even in riding.

It may be allowed here to give fome account of the horfes of other countries, which derive their origin, or at left receive their improvement from the Arabian kind, for wherefoever the Saracens fpread their victorious arms, they, at the fame time, introduced their generous race of horfes.

Thofe of Persia are light, fwift, and very like thofe of.Arabia, but formed very narrow before:

[^26]they are fed with chopped fraw, mixed with barley, and inftead of foiling, are fed with new eared or green barley for about fourteen or twenty days *.

Atbiopia has with fome writers the credit of having originally furnifhed Arabia with its fine race of horfes; but we believe the reverfe, and that they were introduced into that empire by the Arabian princes, whofe lineage to this day fills that throne. The horfes of that country are fpirited and ftrong, and generally of a black color: they are never ufed in long journies, but only in battle or in the race, for all fervile work is done by mules: the Ethiopians never fhoe them, for which reafon, on paffing through ftony places, they difmount, and ride on mules, and lead their horfes $\dagger$; fo from this we may colleet, that this nation is not lefs attached to thefe animals than the Arabs.

Egypt has two breeds of horfes, one its own, the other Arabian; the laft are moft efteemed, and are bought up at a great price, in order to be fent to Confantinople; but fuch is the difcouragement, arifing from the tyranny of the government, that the owners often wilfully lame a promifing horfe $\$_{\text {s }}$ left the Beys fhould like it and force it from them.

Barbary owes its fine horfes to the fame ftock, but in general they are far inferior in point of value; and for the fame reafon as is given in the laft arti-

* Tavernier's Travels, I. $145^{\circ}$
† Ludolph. bif. Aitbiop. 53.
$\ddagger$ Univ. modern bift. quotted from Maillet and Poceqk,
Vol. II.
$\mathrm{U} u$
cle,


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cle, the great infecurity of property under the Tur$k i / b$ government. The breed was once very famous: M. D'Arvieux* fays, that when he was there in 1668 , he met with a mare that he thought worthy of the ftud of his grand Momarque, when in the height of his g!ory; but Doctor Sbaw informs us, that at prefent the cafe is entirely altered $\dagger$.

Notwithftanding Spain has been celebrated of old for the fwiftnefs of its horfes, yet it mult have reeeived great improvement from thofe brought over by their conquerors, the Saracens. According to Oppian $\ddagger$, the Spanifs breed had no other merit than that of fleetnefe, but at prefent we know that they have feveral other fine qualities.

To fum up the account of this generous animal, we may obferve, that every country that boafts of a fine race of horles, is indebted to Arabia, their primæval feat. No wonder then, that the poetic genius of the author of the book of $\mathcal{F o b}$, who not only lived on the very fpot, but even at time when the animal creation till enjoyed much of its original perfection, fhould be able to compofe that fublime defcription which has always been the admiration of every perfon of genuine tafte §.

[^27]
## No. II.

Qf the TAKING of WOLVES, \&cc.

Ex. Autographo penes Dec. et Capit. Exon.
From Bp. Lyttelton's Collections.
foHAN. comes Moreton omnibus hominibus et amicis fuis Francis et Anglicis prefentibus et futuris falutem fciatis nos concef.fe reddidiffe et hac cartamea confirmaffe comit. baron militibus et omnibus libere tenentibus clericis et laicis in Devenefire libertates fuas forefte quas habuerunt tempore Henrici Reg. proavi mei tenendas et habendas illis et heredibus fuis de me et heredibus meis et nominatim quod habeant arcus et pharetrae, et fagittas in terris fuis deferendas extra regardum forefte mee, et quod canes fui vel hominum fuorum, non fint efpaltati extra regardum forefte, et quod habeant canes fuos et alias libertates, ficut melius et liberius illas habuerunt tempore ejufd. Henrici Regis et Reifellos fuos, et quod capiant Capreolum, Vulpem, Cattum, Lupum, Leporem, Lutram, ubicunque illam inveniunt ex-

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tra regardum forefte mee. Et ideo vobis firmiter precipio, quod nullus eis, de hiis vel aliis libertatibus fuis moleftiam inferat vel gravamen. Hiis teftibus Will. Marefcall. Will. comite Sarefour. Will. com. de Vernon. Steph. Ridell cancellario meo, Will. de Wenn. Hamone de Valoin, Rogero de Novoburgo, Ingelram de Pincoll. Rob. de Moritomari, Waltero Maltravers. Rad. Morin. Walt. de Cantelu. Gilberti Morin et multis aliis.

Seal appendant, an armed man on horfeback, and on the reverfe, a fmall impreffion from an antique head - the legend broken.

## No. III.

## Of the CHOICE of his MAJESTY's

## HAWKS.

TO all thofe to whome this prefent Writinge fhall come I Sr. Antbony Pell Knight Maifter Faulkner Surveyor and Keeper of his Majefties Hawkes fend greetinge, Whereas I am credibly informed that divers perfons who doe ufuallie bringe Haukes to fell doe commonlye convey them from fhipbord and cuftome howfe before fuch tyme as I or my fervants or deputies have any fight or choife of them for his Majefties ufe whereby his Highnefs is not nor hath not lately beene furnifhed with the number of Hawkes as is moft meete, Wherefore theis are in his Majefties name to will charge and commaund you and every of you that fhall at any tyme hereafter bringe any Hawkes to fell, That neither you nor any of you nor any others for you or by your appointment doe remove or convey awaye any of your Hawkes whatfoever from fhipbord or the cuftome houfe untill fuch tyme as the bearer hereof my welbeloved friend William Spence Gent. have his firt choife $\mathrm{U} \mathrm{u}_{3}$
for

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for his Majefties fervice, And that you and every one of you do quietly permitt and fuffer the faid IVIn. Spence the bearer hereof to take his choife and make tryal of fuch of your Hawkes as he fhall thinke meete with a gorge or two of meat before fuch tyme as his Majefties price be paide beeinge as hereafier followeth, viz for a Faulcon twenty fix fhillings and eight pence, for a Taffell gentle thirteene fhillings and four pence, for a Lanner twenty fix fhillings and eight pence, for a Lannarett thirteene fhillings and foure pence, for a Gofhawke twentie fhillings, for a Taffell of a Gofshawke thirteene fhillings and foure pence, for a Gerfaulkon thirtie fhillings, for a Jerkin thirteen fhillings and fourepence, hereof fayle you not as you will anfwere the contrary at your perills. Dated the fix and twentieth day Fanuarie Anno Domini 162 I,

This warrant to endure untill the firt daye of Auguft next comeinge,

## A $P \quad P \quad E \quad N \quad D \quad X$.

## No. IV.

Of the SMALL BIRDS of FLIGHT,

By the Honble. Daines Barringtono

IN the fuburbs of London (and particularly about Sboreditcb) are feveral weavers and other tradefmen, who, during the months of OEFober and Marc痛, get their livelihood by an ingenious, and we may fay, a fcientific method of bird-catching, which is totally unknown in other parts of Great Britain.

The reafon of this trade being confined to fo fmall a compafs, arifes from there being no confiderable fale for finging birds except in the metropolis: as the apparatus for this purpofe is alfo heavy, and at the fame time mult be carried on a man's back, it prevents the bird-catchers going to above three or four miles diftance.

This method of bird-catching muft have been long practifed, as it is brought to a moft fyftematical perfection, and is attended with a very confiderable expence.

The nets are a moft ingenious piece of mechanifm, are generally twelve yards and a half long, Uu 4 and

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and two yards and a half wide; and no one on bare infpection would imagine that a bird (who is fo fo very quick in all its motions) could be catched by the nets flapping over each other, till he becomes eye witnefs of the pullers feldom failing *.

The wild birds $f y$ (as the bird-catchers term it) chiefly during the month of OEtober, and part of September and November; as the flight in March is much lefs confiderable than that of Micbaelmafs. It is to be noted alfo, that the feveral fpecies of birds of figbt do not make their appearance precifely at the fame time, during the months of September, Ociober and November. The Pippet $\uparrow$, for example, begins to fy about Micbaelmafs, and then the Woodlark, Linnet, Goldfinch, Chaffinch, Greenfinch, and ocher birds of flight fucceed; all of which are not eafily to be caüght, or in any numbers, at any other time, and more particularly the Pippet and the Woodlark.

Thefe birds, during the Micbaelma/s and March flights, are chiefly on the wing from day break to noon, though there is afterwards a fmall fight from two till night; but this however is fo incon-
> * Thefe nets are known in moft parts of England by the name of day-nets or clap-nets; but all we have feen are far inferior in their mechanifm to thofe ufed near London.
> $\dagger$ A fmall fpecies of Lark, but which is inferior to other birds of that Genus in point of fong.

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fiderable, that the bird-catchers always take up their nets at noon.

It may well deferve the attention of the naturalift whence thefe periodical flights of certain birds can arife. As the ground however is ploughed during the months of OEFober and March for fowing the winter and lent corn, it fhould feem that they are thus fupplied with a great profufion both of feeds and infects, which they cannot fo eafily procure at any other feafon.

It may not be improper to mention another circumftance, to be obferved during their flitting, viz. that they fly always againft the wind; hence, there is great contention amongft the bird-catchers who fhall gain that point, if (for example) it is wefterly, the bird catcher who lays his nets moft to the eaft, is fure almoft of catching every thing, provided his call-birds are good: a gentle wind to the fouth-weft generally produces the beft fport.

The bird-catcher, who is a fubftantial man, and hath a proper apparatus for this purpofe, generally carries with him five or fix linnets (of which more are caught than any finging bird) two goldfinches, two greenfinches, one woodlark, one redpoll, a yellowbammer, titlork, and aberdavine, and perhaps a bullfinch; thefe are placed at fmall diftances from the nets in little cages. He hath, befides, what are called fur-birds, which are placed with-

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in the nets, are raifed upon the fur ${ }^{\text { }}$, and gently let down at the time the wild bird approaches them. Thefe generally confift of the linnet, the goldfinch, and the greenfincb, which are fecured to the fur by what is called a brace $\dagger$; a contrivance that fecures the birds without doing any injury to their plumage.

It having been found that there is a fuperiority between bird and bird, from the one being more in fong than the other; the bird-catchers contrive that their call birds fhould moult before the ufual time. They, therefore, in fune or Fuly, put them into a clofe box, under two or three folds of blankets, and leave their dung in the cage to raife a greater heat; in which ftate they continue, being perhaps examined but once a week to have frelh water. As for food, the air is fo putrid, that they eat little during the whole ftate of confinement, which lafts about a month. The birds frequently die under the operation $\ddagger$; and hence the value of a fopped bird rifes greatly.

When

* A moveable perch to which the bird is tied, and which the bird-catcher can raife at pleafure, by means of a long ftring faftened to it.
+ A fort of bandage, formed of a flender filken ftring that is faftened round the bird's body, and under the wings, in fo artful a manner as to hinder the bird from being hurt, let flutter ever fo much in the raifing.
$\ddagger$ We have been lately informed by an experienced birdcatcher,

When the bird hath thus prematurally moulted, he is in fong, whillt the wild birds are out of fong, and his note is louder and more piercing than that of a wild one; but it is not only in his note he receives an alteration, the plumage is equally improved. The black and yellow in the wings of the goldfinch, for example, become deeper and more vivid, together with a moft beautiful glofs, which is not to be feen in the wild bird. The bill, which in the latter is likewife black at the end, in the foopped bird becomes white and more taper, as do its legs: in fiort, there is as much difference between a wild and a fooped bird, as there is between a horfe which is kept in body cloaths, or at grafs.

When the bird-catcher hath laid his nets, he difpofes of his callbirds at proper intervals. It muft be owned, that there is a moft malicious joy in thefe call-birds to bring the wild ones into the fame fate of captivity; which may likewife be obferved with regard to the decoy ducks.

Their fight and hearing infinitely excels that of the bird catcher. The inftant that the * wild birds are perceived, notice is given by one to the reft of
catcher, that he purfues a cooler regimen in fopping his birds, and that he therefore feldom lofes one: but we fufpect that there is not the fame certainty of making them moult.

[^28]
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the call-birds, (as it is by the firft hound that hits on the fcent, to the reft of the pack) after which, follows the fame fort of tumultuous sectacy and iny. The call-birds, while the bird is at a diftance, do not fing as a bird does in a chamber; they invite the wild ones by what the bird-catchers call Bort jerks, which when the birds are good, may be heard at a great diftance. The afcendency by this call or invitation is fo great, that the wild bird is ftopped in its courfe of flight, and if not already acquainted with the nets*, lights boldly within twenty yards of perhaps three or four bird-catchers, on a fpot which otherwife it would not have taken the left notice of. Nay, it frequently happens, that if half a flock only are caught, the remaining half will immediately afterwards light in the nets, and fhare the fame fate; and fhould only one bird efcape, that bird will fuffer itfelf to be pulled ar till it , is caught, fuch a fafcinating power have the call-birds.

While we are on this fubject of the jerking of birds, we cannot omit mentioning, that the birdcatchers frequently lay confiderable wagers whofe call-bird can jerk the longeft, as that determines the fuperiority. They place them oppofite to each other, by an inch of candle, and the bird who

[^29]jerks the ofteneft, before the candle is burnt out, wins the wager. We have been informed, that there have been inftances of a bird's giving a hundred and feventy jerks in a quarter of an hour; and we have known a linnet, in fuch a trial, perfevere in its emulation till it fwooned from the perch : thus, as Pliny fays of the nightingale, vizta morte funit Sape vitam, Spiritu prius deffiente quám cantu*.

It may be here obferved, that birds when near each other, and in fight, feldom jerk or fing. They either fight, or ufe fhort and wheedling calls; the jerking of thefe call-birds, therefore, face to face, is a moft extraordinary inflance of contention for fuperiority in fong.

It may be alfo worthy of obfervation, that the female of no fpecies of birds ever fings : with birds, it is the reverfe of what occurs in human kind: among the feathered tribe, all the cares of life fall to the lot of the tender fex: theirs is the fatigue of incubation; and the principal fhare in nurfing the helpiefs brood: to alleviate thefe fatigues, and to fupport her under them, nature hath given to the male the fong, with all the little blandifhments and foothing arts; thefe he fondly exerts (even after courthip) on fome fpray contiguous to the neft, during the time his mate is performing her parental duties, But that fhe fhould be filent, is alfo a-

[^30]nother wife provifion of nature, for her fong would difcover her neft; as would a gaudinefs of plumage, which, for the fame reafon, feems to have been denied her.

To thefe we may add a few particulars that fell within our notice during our enquiries among the bird-catchers, fuch as, that they inmediately kill the hens of every fpecies of birds they take, being incapable of finging, as alfo being inferior in plumage ; the pippets likewife are indifcriminately deftroyed, as the cock does not fing well : they fell the dead birds for three-pence or four-pence a dozen.

Thefe fmall birds are fo good, that we are furprized the luxury of the age neglects fo delicate an acquifition to the table. The modern Italians are fond of fmall birds, which they eat under the common name of Beccaficos: and the dear rate a Roman Tragedion paid for one difh of finging birds* is well known.

Another particular we learned, in converfation with a London bird-catcher, was the vaft price that is fometimes given for a fingle fong bird, which
> * Maximè tamen infignis eft in bac memoria, Clodii Æfopi tragici biftrionis patina sexcentis H. S. taxata; in quo pofuit aves cantu aliquo, out bumano fermone, vocales. Plin. lib. x. c. 51. The price of this expenfive difh was about 6843 l . 10 s. according to Arbutbnot's Tables. This feems to have been a wanton caprice, rather than a tribute to epicurifm. T. P.

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had not learned to whifte tunes. The greateft fum we heard of, was five guineas for a cbaffinch, that had a particular and uncommon note, under which it was intended to train others : and we alfo heard of five pounds ten fhillings being given for a call-bird linnet.

A third fingular circumftance, which confirms an obfervation of Linnous, is, that the male cbaffinches fly by themfelves, and in the fight precede the females; but this is not peculiar to the cbaffinches. When the titlarks are caught in the beginning of the feafon, it frequently happens, that forty are taken and not one female among them : and probably the fame would be obferved with regard to other birds (as has been done with relation to the wheat-ear) if they were attended to.

An experienced and intelligent bird-catcher informed us, that fuch birds as breed twice a year, generally have in their firft brood a majority of males, and in their fecond, of females, which may in part account for the above obfervation.

We muft not omit mention of the bulfinch, though it does not properly come under the title of a finging bird, or a bird of fligbt, as it does not often move farther than from hedge to hedge; yet, as the bird fells well on account of its learning to whiftle tunes, and fornetimes flies over the fields where the nets are laid; the bird-catchers have often a call-bird to enfnare it, though moft of them can imitate the call with their mouths. It is remarkable

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markable with regard to this bird, that the female anfwers the purpofe of a call-bird as well as the male, which is not experienced in any other bird taken by the London bird-catchers.

It may perhaps furprize, that under this article of finging birds, we have not mentioned the nightingale, which is not a bird of fight, in the fenfe the bird-catchers ufe this term. The nigbtingale, like the robin, ween, and many other finging birds, only moves from hedge to hedge, and does not take the periodical figbts in Oitober and March. The perfons who catch thefe birds, make ufe of fmall trap-nets, without call-birds, and are confidered as inferior in dignity to other bird-catchers, who will not rank with them.

The nightingale being the firft of finging birds, we fhall here infert a few particulars relating to it, that were tranfmitted to us fince the defcription of that bird was printed.

Its arrival is expected, by the trappers in the neighborhood of London, the firf week in April; at the beginning nóne but cocks are taken, but in a few days the hens make their appearance, generally by themfelves, though fometimes a few males come along with them.

The latter are diftinguifhed from the females not only by their fuperior fize, but by a great fwelling of their vent, which commences on the firft arrival of the hens.

They

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They do not build till the middle of May , and generally chufe a quickfet to make their neft in.

If the nightingale is kept in a cage, it often begins to fing about the latter end of November, and continues its fong more or lefs till 'fune.

A young Canary bird, linnet, Jkylark, or robin (who have never heard any other bird) are faid beft to learn the note of a nigbtingale.

They are caught in a net-trap; the bottom of which is furrounded with an iron ring ; the net itfelf is rather larger than a cabbage net.

When the trappers hear or fee them, they frew fome frefh mould under the place, and bait the trap with a meal-worm from the baker's fhop.

Ten or a dozen nightingales have been thas caught in a day.

## No. V.

EXPERIMENTS AND OBSERVATIONS on the SINGING of BIRDS, by the Hon. DAINES BARRINGTON. In a letter to MATHEW MATY, M.D. SEC. R. S. I773.

From the Philosorhical Transactions, Vol. LXIII.

$$
\text { Dear } S_{i r},
$$

A$S$ the experiments and obfervations I mean to lay before the Royal Society relate to the finging of birds, which is a fubject that hath never before been fcientifically treated of ${ }^{*}$, it may not be improper to prefix an explanation of fome uncommon terms, which I hall be obliged to ufe, as well as others which I have been under a neceffity of coining.

* Kircher, indeed, in his Muflirgia, hath given us fome few paffages in the fong of the nightingale, as well as the call of a quail and cuckow, which he hath engraved in mufical characters. Thefe inftances, however, only prove that fome birds have in their fong, notes which correfpond with the intervals of our common fcale of the mufical octave.

To chirp, is the firt found which a young bird utters, as a cry for food, and is different in all neflings, if accurately attended to; fo that the hearer may diftinguifh of what fpecies the birds are, though the neft may hang out of his fight and reach.

This cry is, as might be expected, very weak and querulous; it is dropped entirely as the bird grows ftronger, nor is afterwards intermixed with its fong, the chirp of a nightingale (for example) being hoarfe and difagreeable.

To this definition of the cbirp, I muft add, that it confifts of a fingle found, repeated at very fhort intervals, and that it is common to neflings of both fexes.

The call of a bird, is that found which it is able to make, when about a month old ; it is, in moft inftances (which I happen to recollect) a repetition of one and the fame note, is retained by the bird as long as it lives, and is common, generally, to both the cock and hen *.

The next ftage in the notes of a bird is termed, by the bird-catchers, recording, which word is

[^31]probably derived from a mufical inftrument, formerly ufed in England, called a recorder *.

This attempt in the neftling to fing, may be compared to the imperfect endeavour in a child to babble. I have known inftances of birds beginning to record when they were not a month old.

This firf effay does not feem to have the leaft rudiments of the future fong; but as the bird grows older and ftronger, one may begin to perceive what the nefling is aiming at.

Whilt the fcholar is thus endeavouring to form his fong, when he is once fure of a paffage, he commonly raifes his tone, which he drops again when he is not equal to what he is attempting ; juft as a finger raifes his voice, when he not only recollects certain parts of a tune with precifion, but knows that he can execute them.

What the nefling is not thus thoroughly mafter of, he hurries over, lowering his tone, as if he did not wifh to be heard, and could not yet fatisfy himfelf.

I have never happened to meet with a paffage in any writer, which feems to relate to this ftage of
> * It feems to have been a fpecies of flute, and was probably ufed to teach young birds to pipe tunes.

> Lord Bacon defcribes this inftrument to have been ftrait, to have had a leffer and greater bore, both above and below, to have required very little breath from the blower, and to have had what he calls a fipple, or ftopper. See his fecond Century of Experiments.
finging in a bird, except, perhaps, in the following lines of Statius:

## .--------... " Nunc volucrum novi

"Queftus, inexpertumque carmen, "Quod tacitâ ftatuere brumâ."

Stat. Sylv. L. IV. Ecl. 5.

A young bird commonly continues to record for ten or eleven months, when he is able to execute every part of his fong, which afterwards continues fixed, and is fcarcely ever altered *.

When the bird is thus become perfect in his leffon, he is faid to fing bis fong round, or in all its varieties of paffages, which he connects together, and executes without a paufe.

I would therefore define a bird's fong to be a fucceffion of three or more different notes, which are continued without interruption during the fame interval with a mufical bar of four crotchets in an adagio movement, or whilf a pendulum fwings four feconds.

By the firft requifite in this definition, I mean to

* The bird called a Trwite* by the bird-catchers commonly flies in company with linnets, yet thefe two fpecies of birds never learn each other's notes, which always continue totally different.
- Br. Zool. Vol. II. p. 315. 8vo. prefent edition, I. p. 293.
exclude the call of a cuckow, or clucking of a hen *, as they confift of only two notes; whilft the fhort burfts of finging birds, contending with each other (called jerks by the bird-catchers) are equally diftinguifhed from what I term fong, by their not continuing for four feconds.

As the notes of a cuckow and hen, therefore, though they exceed what I have defined the call of a bird to be, do not amount to its fong, I will, for this reafon, take the liberty of terming fuch a, fucceffion of two notes as we hear in thefe birds, the varied call.

Having thus fettled the meaning of certain words, which I fhall be obliged to make ufe of, I fhall now proceed to ftate fome general principles with regard to the finging of birds, which feem to refult from the experiments I have been making for feveral years, and under a great variety of circumftances.

Notes in birds are no more innate, than language is in man, and depend entirely upon the mafter under which they are bred, as far as their organs will enable them to imitate the founds which they have frequent opportunities of hearing.

Moft of the experiments I have made on this fubject have been tried with cock linnets, which were fledged and nearly able to leave their neft, on

[^32]
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account not only of this bird's docility, and great powers of imitation, but becaufe the cock is eafily diftinguifhed from the hen at that early period, by the fuperior whitenefs in the wing *.

In many other forts of finging birds the male is not at the age of three weeks fo certainly known from the female; and if the pupil turns out to be a hen,
----------. " ibi omnis
"Effufus labor."
The Greek poets made a fongtter of the $\tau \varepsilon \pi h \xi$; whatever animal that may be, and it is remarkable that they obferved the female was incapable of finging as well as hen birds:

Comicorum Gracorum Sententiæ, p. 452. Ed. Steph.
I have indeed known an inftance or two of a hen's making out fomething like the fong of her fpecies; but thefe are as rare as the common hen's being heard to crow.

I rather fufpect alfo, that thofe parots, magpies, \&zc. which either do not fpeak at all, or very little, are hens of thofe kinds.

[^33]I have educated nefling linnets under the three beft finging larks, the $\sqrt{2} y l a r k$, woodlark, and titlark, every one of which, in ftead of the linnet's fong, adhered entirely to that of their refpective inftructors.

When the note of the titlark-linnet * was thoroughly fixed, I hung the bird in a room with two common linnets, for a quarter of a year, which were full in fong; the titlark-linnet, however, did not borrow any paffages from the linnet's fong, but adhered ftedfaftly to that of the titlark.

I had fome curiofity to find out whether an European neftling would equally learn the note of an African bird: I therefore educated a young linnet under a vengolina $\dagger$, which imitated its African mafter fo exactly, without any mixture of the linnet fong, that it was impofible to diftinguifh the one from the other.

* I thus call a bird which fings notes he would not have learned in a wild ftate; thus by a fiylark-linnet, I mean a linnet with the fkylark fong; a nightingale-robin, a robin with the nightingale fong, \&sc.
+ This bird feems not to have been defcribed by any of the ornithologifts; it is of the finch tribe, and about the fame fize with our aberdavine (or fikin). The colors are grey and white, and the cock hath a bright yellow foot upon the rump. It is a very familiar bird, and fings better than any of thofe which are not European, except the American mocking bird. An inftance hath lately happened, in an aviary at Hamfled, of a vernglina's breeding with a Canary bird.


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This vengolina-linnet was abfolutely perfect, without ever uttering a fingle note by which it could have been known to be a linnet. In fome of my other experiments, however, the neftling linnet retained the call of its own fpecies, or what the bird-catchers term the linnet's cbuckle, from fome refemblance to that word when pronounced.

I have before ftated, that all my neftling linnets were three weeks old, when taken from the neft; and by that time they frequently learn their own call from the parent birds, which I have mentioned to confift of only a fingle note.

To be certain, therefore, that a nefling will not have even the call of its fpecies, it fhould be taken from the neft when only a day or two old; becaufe, though neflings cannot fee till the feventh day, yet they can hear from the inftant they are hatched, and probably, from that circumftance, attend to founds, more than they do afterwards, efpecially as the call of the parents announces the arrival of their food.

I muft own, that I am not equal myfelf, nor can I procure any perfon to take the trouble of breeding up a bird of this age, as the odds againft its being reared are almoft infinite. The warmth indeed of incubation may be, in fome meafure, fupplied by cotton and fires; buit thefe delicate animals require, in this fate, being fed almoft perpetually, whilf the nourifhment they receive fhould

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not only be prepared with great attention, but given in very fmall portions at a time.

Though I muft admit, therefore, that I have never reared myfelf a bird of fo tender an age, yet I have happened to fee both a linnet and a goldfinch which were taken from their nefts when only two or three days old.

The firt of thefe belonged to Mr. Mattberos, an apothecary at Kenfington, which, from a want of other founds to imitate, almoft articulated the words pretty boy, as well as fome other fhort fentences: I heard the bird myfelf repeat the words pretty boy; and Mr. Mattbews affured me, that he had neither the note or call of any bird whatfoever.

This ta!king linnet died laft year, before which, many people went from London to hear him fpeak.

The goldfinch I have before mentioned, was reared in the town of Knigbton in Radnorfhire, which I happened to hear, as I was walking by the houfe where it was kept.

I thought indeed that a zoren was finging; and I went into the houfe to inquire after it, as that little bird feldom lives long in a cage.

The people of the houfe, however, told me, that they had no bird but a goldfinch, which they conceived to fing its own natural note, as they called it; upon which I ftaid a confiderable time in the room, whilf its notes were merely thofe of a zeren, without the leaft mixture of goldfinch.

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On further inquiries, I found that the bird had been taken from the neft when only a day or two old, that it was hung in a window which was oppofite to a fmall garden, whence the neflling had undoubtedly acquired the notes of the wren, without having had any opportunity of learning even the call of the goldfinch.

Thefe facts, which I have flated, feem to prove very decifively, that birds have not any innate ideas of the notes which are fuppofed to be peculiar to each fpecies. But it will pofibly be afked, why, in a wild ftate, they adhere fo fteadily to the fame fong, in fo much, that it is well known, before the bird is heard, what notes you are to expect from him.

This, however, arifes entirely from the nefling's attending only to the inftruction of the parent bird, whilft it difregards the notes of all others, which may perhaps be finging round him.

Young Canary birds are frequently reared in a room where there are many other forts; and yet I have been informed, that they only learn the fong of the parent cock.

Every one knows, that the common houle-fparrow, when in a wild ftate, never does any thing but chirp: this, however, does not arife from want of powers in this bird to imitate others; but becaufe he only attends to the parental note.

But, to prove this decifively, I took a comnon fparrow from the neit when it was fledged,

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and educated him under a linnet: the bird, however, by accident, heard a goldfinch alfo, and his fong was, therefore, a mixture of the linnet and goldfinch.

I have tried feveral experiments, in order to obferve, from what circumftances birds fix upon any particular note when taken from the parents; but cannot fettle this with any fort of precifion, any more than at what period of their recording they determine upon the fong to which they will adhere.

I educated a young robin under a very fine nightingale; which, however, began already to be out of fong, and was perfectly mute in lefs than a fortnight.

This robin afterwards fung three parts in four sigbtingale; and the reft of his fong. was what the bird-catchers call rubbib, or no particular note whatfoever.

I hung this robin nearer to the nightingale than to any other bird; from which firf experiment I conceived, that the fcholar would imitate the mafter which was at the leaft diftance from him.
From feveral other experiments, however, which I have fince tried, I find it to be very uncertain what notes the nefllings will moft attend to, and often their fong is a mixture; as in the inftance which I before ftated of the fparrow.

I muft own alfo, that I conceived, from the experiment of educating the robin under a nightingale, that the fcholar would fix upon the note which

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which it firft heard when taken from the nett; I imagined likewife, that, if the nightingale had been fully in fog, the inftruction for a fortnight would have been fufficient.

I have, however, fince tried the following experiment, which convinces me, fo much depends upon circumftances, and perhaps caprice in the fcholar, that no general inference, or rule, can be laid down with regard to either of there fuppofitions.

I educated a nettling robin under a woodlarklinnet, which was full in fog, and hung very near to him for a month together: after which, the robin was removed to another house, where he could only hear a fkylark-linnet. The confequence was, that the nefling did not fing a note of woodlark (though I afterwards hung him again jut above the woodlark-linnet) but adhered entirely to the fog of the fkylark-linnet.

Having thus fated the refult of feveral experiments, which were chiefly intended to determine, whether birds had any innate ideas of the notes, or fog, which is fuppofed to be peculiar to each fpecies, I fall now make forme general observations on their finging; though perhaps the fubject may appear to many a very minute one.

Every poet, indeed, Speaks with raptures of the harmony of the groves; yet thole even, who have good mufical ears, feem to pay little attention to it, but as a pleafing noife.

I am alfo convinced (though it may feem rather

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paradoxical), that the inhabitants of London diftinguifh more accurately, and know more on this head, than of all the other parts of the illand taken togecher.

This feems to arife from two caufes.
The firt is, that we have not more mufical ideas which are innate, than we have of language; and therefore thofe even, who have the happinefs to have organs which are capable of receiving a gratification from this fixth fenfe (as it hath been called by fome) require, however, the beft inftruction.

The orcheftra of the opera, which is confined to the metropolis, hath diffufed a good ftile of playing over the other bands of the capital, which is, by degrees, communicated to the fidler and balladfinger in the ftreets; the organs in every church, as well as thofe of the Savoyards, contribute likewife to this improvement of mufical faculties in the Londoners.

If the finging of the ploughman in the country is therefore compared with that of the London blackguard, the fuperiority is infinitely on the fide of the latter; and the fame may be obferved in comparing the voice of a country girl and London houfe-maid, as it is very uncommon to hear the former fing tolerably in tune.

I do not mean by this, to affert that the inhabitants of the country are not born with as good mufical organs; but only, that they have not the fame opportunities of learning from others, who play in tune themfelves.

The other reafon for the inhabitants of London judging better in relation to the fong of birds, arifes from their hearing each bird fing diftinctly, either in their own or their neighbours fhops; as alfo from a bird continuing much longer in fong whilft in a cage, than when at liberty; the caufe of which I fhall endeavour hereafter to explain.

They who live in the country, on the other hand, do not hear birds fing in their woods for above two months in the year, when the confufion of notes prevents their attending to the fong of any particular bird; nor does he continue long enough in a place, for the hearer to recollect his notes with accuracy.

Befides this, birds in the fpring fing very loud indeed; but they only give fhort jerks, and fcarcely ever the whole compafs of their fong.

For thefe reafons, I have never happened to meet with any perfon, who had not refided in London, whofe judgment or opinion on this fubject I could the leaft rely upon; and a ftronger proof of this cannot be given, than that moft people, who keep Canary birds do not know that they fing chiefly either the titlark, or nightingale notes*.

Nothing,

* I once faw two of thefe birds which came from the Canary Ifands; neither of which had any fong at all; and I have been informed, that a fhip brought a great many of them not long fince, which fung as little.

Moft of thofe Ganary birds, which are imported from the Tyrol,

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Nothing, however, can be more marked than the note of a nightingale called its jug, which moft of the Conary birds brought from the Tyrol commonly have, as well as feveral nightingale ftrokes, or particular paffages in the fong of that bird.

I mention this fuperior knowledge in the inhabitants of the capital, becaufe I am convinced, that, if others are confulted in relation to the finging of birds, they will only miflead, inftead of giving any material or ufeful information *.

Birds in a wild ftate do not commonly fing above ten weeks in the year ; which is then alfo confined to the cocks of a few fpecies; I conceive, that this laft circumftance arifes from the fuperior ftrength of the mufcles of the larynx.

Tyrol, have been educated by parents, the progenitor of which was inftructed by a nightingale; our Engliß Canary birds have commonly more of the titlark note.

The traffick in thefe birds makes a fmall article of commerce, as four Tyroleze generally bring over to England fixteen hundred every year; and though they carry them on their backs one thoufand miles, as well as pay 201 . duty for fuch a number, yet, upon the whole, it anfwers to fell thefe birds at 5 s . a piece.

The chief place for breeding Carary birds is In/pruck and its environs, from whence they are fent to Canftantinople, as well as every part of Europe.

* As it will not anfwer to catch birds with clap-nets any where but in the neighbourhood of London, moft of the birds which may be heard in a country town are nefllings, and confequently cannct fing the fuppored natural fong in any perfection.

I procured a cock nightingale, a cock and hen blackbird, a cock and hen rook, a cock linnet, as alfo a cock and hen chaffinch, which that very eminent anatomift, Mr. Hunter, F. R. S. was fo obliging as to diffect for me, and begged, that he would particularly attend to the ftate of the organs in the different birds, which might be fuppofed to contribute to finging.

Mr. Hunter found the mufcles of the larynx to be ftronger in the nightingale than in any other bird of the fame fize ; and in all thofe inftances (where he diffected both cock and hen) that the fame mufcles were ftronger in the cock.

I fent the cock and hen rook, in order to fee whether there would be the fame difference in the cock and hen of a fpecies which did not fing at all. Mr. Hunter, however, told me, that he had not attended fo much to their comparative organs of voice, as in the other kinds; but that, to the beft of his recollection, there was no difference at all.

Strength, however, in thefe mufcles, feems not to be the only requifite; the birds mult have alfo great plenty of food, which feems to be proved fufficiently by birds in a cage finging the greateft part of the year ${ }^{*}$, when the wild ones do not

* Fifh alfo which are fupplied with a conftant fucceffion of palatable food, continue in feafon throughout the greateft part of the year; trouts, therefore, when confined in a ftew Vol. II. $\mathbf{X y}$ and.
(as I obferved before) continue in fong above ten weeks.

The food of finging birds confifts of plants, infects, or feeds, and of the two firft of thefe there is infinitely the greateft profufion in the fpring.

As for feeds, which are to be met with only in the autumn, I think they cannot well find any great quantities of them in a country fo cultivated as England is; for the feeds in meadows are deftroyed by mowing; in partures, by the bite of the cattle; and in arable, by the plough, when moft of them are buried too deep for the bird to reach them *.

I know well that the finging of the cock-bird in the fpring is attributed by many $\dagger$ to the motive only of pleafing its mate during incubation.

They, however, who fuppoie this, fhould recollect, that much the greater part of birds do not fing at all: why fhould their mate therefore be deprived of this folace and amufement?

The bird in a cage, which, perhaps, fings nine or ten months in a year, cannot do fo from this inducement; and, on the contrary, it arifes chiefly from contending with another bird, or indeed againft almoft any fort of continued noife.
and fed with minnows, are almoft at all feafons of a good flavour, and are red when dreffed.

* The plough indeed may turn up fome few feeds, which may ftill be in an eatable fate.
+ See, amongit others, M. de Bufon, in his lately-publifhed Ornithology.


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Superiority in fong gives to birds a moft amazing afcendency over each other; as is well known to the bird-catchers by the fafcinating power of their call-birds, which they contrive fhould moult prematurely for this purpofe.

But, to fhew decifively that the finging of a bird in the fpring does not arife from any attention to its mate, a very experienced catcher of nightingales hath informed me, that fome of thefe birds have jerked the inftant they were caught. He hath alfo brought to me a nightingale, which had been but a few hours in a cage, and which burft forth in a roar of fong.

At the fame time this bird is fo fulky on its firft confinement, that he muft be crammed for feven or eight days, as he will otherwife not feed himfelf; it is alfo neceffary to tye his wings, to prevent his killing himfelf againft the top or fides of the cage.

I believe there is no inftance of any bird's finging which exceeds our black bird in fize; and poffibly this may arife from the difficulty of its concealing itfelf, if it called the attention of its enemies, not only by bulk, but by the proportionable loudnefs of its notes *.

I fhould rather conceive, it is for the fame reafon that no henbird fings, becaufe this talent would be ftill more dangerous during incubation; which

[^34]
## A $\quad P^{\prime} P$ E ND I X.

may poffibly alto account for the inferiority in: point of plumage.

I hall now confider how far the finging of birds refembles our known mufical intervals, whichare never marked more minutely than to half notes; becaufe, though we can form every gradation from half-note to half-note, by drawing the finger gently over the firing of a violin, or covering by degrees the hole of a flute; yet we cannot produce fuch a minute interval at command, when a quarter-note for example might be required.

Ligon, indeed, in his hiftory of Barbadoes, hath the following paffage: "The next bird is of the " colour of the fieldfare; but the head is too large " for the body; and for that reafon the is called "a counfellor. She performs that with her voice, " which no inftrument can play, or voice can ling; " and that is quarter-notes, her fog being com" poled of them, and every one a note higher than " another."

Ligon appears, from other parts of his work, to have been mufical; but I fhould doubt much whether he was quite fure of there quarter intervals, fo as to freak of them with precifion.

Some paffages of the fog in a few kinds of birds. correspond with the intervals of our mufical fcale (of which the cuckow is a ftriking and known infrance) : much the greater part, however, of fuck fog is not capable of mufical notations.

This arifes from three caufes : the firft is, that

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the rapidity is often fo great, and it is alfo fo uncertain when they may ftop, that we cannot reduce the paffages to form a mufical bar, in any time whatfoever.

The fecond is, that the pitch of moft birds is confiderably higher* than the moft fhrill notes of thofe inftruments, which contain even the greateft compafs.

I have before faid, that our ideas of a voice, or inftrument, being perfectly in tune or not, arife from comparing it with the mufical intervals to which we are moft accuftomed.

As the upper and lower parts of every inftrument, however, are but feldom ufed, we are not fo well acquainted with the intervals in the higheft and loweft octaves, as we are with thofe which are more central; and for this reafon the harpfichordtuners find it more difficult to tune thefe extreme parts.

As a bird's pitch, therefore, is higher than that of an inftrument, we are confequently at a ftill

* Dr. Wallis is miftaken in part of what he fuppofes to be the caufe of fhrillnefs in the voice, "Nam ut tubus, fic tra"c chea longior, \& ftrictior, fonum efficit magis acutum." Grammar, p. 3 .

The narrower the pipe is, the more Masp the pitch as he rightly obferves; but the length of the tube hath juit the contrary effect, becaufe players on the flute always infert a longer middle-piece, when they want to make the inftrument more. fat.

$$
\text { Y y } 3 \quad \text { greater }
$$

greater lofs when we attempt to mark their notes in mufical characters, which we can fo readily apply to fuch as we can diftinguifh with precifion.

The third, however, and unfurmountable difficulty is, that the intervals ufed by birds are commonly fo minute, that we cannot judge at all of them from the more grofs intervals into which we divide our mufical octave.

It thould therefore be recollected, by thofe who have contended that the Greeks and Romans were acquainted with fuch more minute intervals of the oftave, that they muft infift the ancients had organs of fenfation, with which their degenerate pofterity are totally unprovided.

Though we cannot attain the more delicate and imperceptible intervals in the fong of birds *, yet many of them are capable of whifting tunes with our more grofs intervals, as is well known by the common inftances of piping bullfinches $\dagger$, and Ca nary birds.

This, however, arifes from mere imitation of what they hear when taken early from the neft; for if the inftrument from which they learn it is
> * There have been inftances indeed of perfons who could whiftle the notes of birds, but thefe are two rare to be argued from.
> $\dagger$ Thefe bullfinches alfo form a fmall article of commerce, and are chiefly brought from the neighbourhood of Cologre.
out of tune, they as readily pipe the falfe, as the true notes of the compofition.

The next point of comparifon to be made between our mulic and that of birds is, whether they always fing in the fame pitch.

This, however, I will not prefume to anfwer with any precifion, for the reafon I have before fuggefted ; I fhall, however, without referve, give the beft conjectures I can form on this head.

If a dozen finging birds of different kinds are heard in the fame room, there is not any difagreeable diffonance (which is not properly refolved), either to my own ear, or to that of others, whofe judgment on fuch a point I can more rely.

At the fame time, as each bird is finging a different fong, it is extraordinary that what we call harmony fhould not be perpetually violated, as we experience, in what is commonly called a Dutch concert, when feveral tunes are played together.

The firtt requifite to make fuch founds agreeable to the ear is, that all the birds fhould fing in the fame key, which I am induced to believe thát they do, from the following reafons.

I have long attended to the finging of birds, but if I cannot have recourfe to an inftrument very foon, I cannot carry the pitch of their notes in my memory, even for a very fhort time.

I therefore defired a very experienced harpfichordtuner (who told me he could recollect any particular note which he happened to hear for feveral hours),

$$
\begin{equation*}
\text { Y y } 4 \tag{to}
\end{equation*}
$$

## A P P E N D I X.

to mark down when he returned home what he had obferved on this head.

I had lately received an account from him of the following notes in different birds.
F. natural in woodlarks.
A. natural in common cocks.
C. natural in Bantam cocks.
B. flat in a very large cock.
C. falling to A . commonly in the cuckow.
A. in thrufhes.
D. in fome owls.
B. flat in fome others.

Thefe obfervations furnifh five notes, viz. A. B. flat, C. D. and F. to which I can add a fixth, (viz. G.) from my own obfervations on a nightingale which lived three years in a cage. I can alfo confirm thefe remarks of the harpfichord-tuner by having frequently heard from the fame bird C . and F .

As one fhould fpeak of the pitch of thefe notes with fome precifion, the B . flat of the fpinnet I tried them by, was perfectly in tune with the great bell of St. Paul's.

The following notes, therefore, having been obferved in different birds, viz. A. B. flat, C. D. F. and $G$. the E . is only wanting to complete the fcale; the fix other notes, however, afford fufficient data for making fome conjectures, at leaft, with regard to the key in which birds may be fuppofed to fing, as there intervals can only be found

## A $\quad \mathrm{P} \quad \mathrm{P} \quad \mathrm{E}^{\prime} \mathrm{N} \quad \mathrm{D} \quad \mathrm{I}$ X.

in the key of F. with a fharp third, or that of G. with a flat third.

I muft own, I fhould rather fuppofe it to be the latter, and for the following reafons.

Lucretius fays (and perhaps the conjecture is not only ingenious but well founded) that the firft mufical notes were learned from birds:
"At liquidas avium voces imitarier ore
"Ante fuit multo, quam lævia carmina cantu "Concelebrare homines poffent, cantuque juvare."

Now, of all the mufical tones which can be diftinguifhed in birds, thofe of the cuckow have been moft attended to, which form a flat third, not only by the obfervations of the harpfichord tuner I have before mentioned, but likewife by thofe of Kircher, in his Mufurgia.

I know well that there have been fome late compofitions, which introduce the cuckow notes in a fharp third; thefe compofers, however, did not trouble themfelves with accuracy in imitating thefe notes, and it anfwered their purpofe fufficient$l y$, if there was a general refemblance.

A nother proof of our mufical intervals being originally borrowed from the fong of birds, arifes from moft compofitions being in a flat third, where mufic is finple, and confifts merely of melody.

The oldeft tune I happen to have heard is a

Welfb one, called Morva Rbydland *, which is compofed in a flat third; and if the mufic of the Turks and Cbinefe is examined in Du Halde and Dr. Sbare, half of the airs are alfo in the minor third.

The mufic of two centuries ago is likewife often in a flat third, though ninety-nine compofitions out of a hundred are now in the fharp third.

The reafon, however, of this alteration feems to be very clear: the flat third is plaintive, and confequently adapted to fimple movements, fuch as may be expected in countries where mufic hath not been long cultivated.

There is on the other hand a moft ftriking brilliancy in the fharp third, which is therefore proper for the amazing improvements in execution, which both fingers and players have arrived at within the laft fifty years.

When Corelli's mufic was firt publifhed, our ableft violinifts conceived that it was too difficult to be performed; it is now, however, the firft compofition which is attempted by a fcholar. Every year alfo now produces greater and greater prodigies upon other inftruments, in point of execution.

I have before obferved, that by attending to a nightingale, as well as a robin which was educated

* Or Rbydland Marfb, where the Welfh received a great defeat ; Rbydland is in Flintbire. We find alfo, by the Orpbeks Britannicus, that even fo late as the time of Purcel, two parts in three of his compofitions are in the flat third.


## A P P E N D I X.

under him, I always found that the notes reducible to our intervals of the octave were precifely the fame; which is another proof that birds fing always in the fame key.

In this circumftance, they differ much from the human finger; becaufe they who are not able to fing from the notes, often begin a fong either above or below the compafs of their voice, which they are not therefore able to go through with. As birds, however, form the fame paffages with the fame notes, at all times, this miftake of the pitch can never happen in them.

Few fingers again can continue their own part, whilft the fame paffages are fung by another in a different key; or if other paffages are played, though they may agree both in harmony and time.

As birds however adhere fo ftedfaftly to the fame precife notes in the fame paffages, though they never trouble themfelves about what is called time or harmony in mufic ; it follows that a compofition may be formed for two piping bulfinches, in two parts, fo as to conftitute true harmony, though either of the birds may happen to begin, or ftop, when they pleafe.

I have therefore procured fuch an ingenious compofition, by a very able mufician *, which I fend herewith; and it need fcarcely be obferved,

[^35]that
that there cannot poffibly be much variety in the part of the fecond bulfinch. See TTab. XI. in the Pbilofopbical Iranfactions, Vol. LXIII.

Though feveral birds have great mufical powers, yet they feem to have no delicacy of fenfations, as the human finger hath; and therefore the very beft of them cannot be taught to exceed the infipidity of the upper part of the flute ftop of an organ *, which hath not the modern improvement of a fwell.

They are eanily impofed upon by that moft imperfect of all inftruments, a bird-call, which they often miftake for the notes of their own fpecies.

I have before obferved, that perhaps no bird may be faid to fing which is larger than a black bird, though many of them are taught to fpeak: the fmaller birds, however, have this power of imitation; though perhaps the larger ones have not organs which may enable them, on the other hand, to fing.

We have the following inftances of birds being taught to fpeak, in the time of the Greeks and
> * Lord Bacon mentions, that in the inftrument called a regall (which was a fpecies of portable organ) there was a nightingale ftop, in which water was made ufe of to produce the ftronger imitation of this bird's tone. See Cent. II. exper. 172. Though this inftrument, as well as its nightingale fop, is now difufed, I have procured an organ pipe to be immerfed partly in water, which, when blown into, hath produced a tone very fimilar to that of birds.

## A $P \quad P \quad E \quad N \quad D \quad I \quad X$.

Romans, upon which we never try the fame experiment. Mofchus addreffes nightingales and fwallows which were thus inftructed:
$A_{\xi} \lambda \alpha \lambda \varepsilon v \nu$ ६ঠi $\delta \alpha \sigma k \varepsilon$.
Mofchi Idyl. III.

Pliny mentions both a cock, thrufh, and nightingales, which articulated ${ }^{*}$ :
" Habebant \& Cafares juvenes turdums $\dagger$, item " lufcinias Græco atque Latino fermone dociles, " preterea meditantes in diem, \& affidue nova lo"quentes longiore etiam contextu."

Statius alfo takes notice of fome birds fpeaking, which we never attempt to teach in this manner:
${ }^{6}$ Huc doctæ ftipentur aves, queis nobile fand: " Jus natura dedit, plangat Phœbeius ales, "Auditafque memor penitus demittere voces ${ }^{4}$ Sturnus, \& Aonio verfæ certamine picæ ;
" Quique refert jungens iterata vocabula perdix, "Et quæ Bifonio queritur foror orba cubili $\ddagger$."

Stat. Sylv. lib. ii. ecl. 4.

* Lib. X. c. $21 \& 42$.
+ Ibid. The other turdus belonged to the Emprefs Agrippina.
$\ddagger$ Amongft the five birds mentioned in thefe lines of Stasius, there are four which are never taught to fpeak at prefent, viz. the cock, the nightingale, the common, and the red legged partridoe.


## A P P E N D I X.

As we find, from thefe citations, that fo many different forts of birds have learned to fpeak, and

As I fuppofe, however, that perdix fignifies this laft bird, and not the common partridge (as it is always tranflated), it is proper I fhould here give my reafons why I diffent from others, as alfo why I conceive that fuurnus, in this paffage, is not a farling, but the common partridge.

None of the ancients have defcribed the plumage of the perdix; but Arifotle, Ovid, and Pliny, inform us of what materials the neft of this bird is compofed, as well as where it is placed.

Arifotle fays, that the neft is fortified with reood*; and in another chapter $\dagger$, with thorns and rwood; neither of which are ufed by the common partridge, which often builds in a country where they cannot be procured.

On the contrary, M. de Buffon informs us, that the red legged partridge, " fe tiennent fur les montagnes qui produifent beaucoup de bruyeres, \& de broffailles $\ddagger$.

Ovid, therefore, fpeaking of the perdix, fays,
6 $\qquad$
where the common partridge is feldom known to build.
Pliny again informs us, " perdices fpinâ \& frutice fic mu-

* E $\pi \lambda \lambda \nu \gamma a \xi \circ \mu \varepsilon v a!~ u \lambda \eta v$. Lib, V. C. 1. Which Stepbens renders makirg a ccuocring of wood.
+ Lib. IX. c. 8. The common partridge, however, makes its neft with hay and ftraw.
$\ddagger$ Orn. T. II. p. 433 .
§ Ovid. Met. Lib. VIII. 1. 25 S. I mall alfo refer to 1. 237, of the fame book:
"Garrula ramosâ profpexit ab ilice perdix :"
as it is well known that tbe common partridge never perches upon a tree,


## A P P E N D I X.

as I have fhewn that a fparrow may be taught to fing the linnet's note, I fcarcely know what fpecies
" niunt receptaculum, ut cont"a feras abunde valentur*", as alfo in the 52 d chapter of his tenth book, that the perdix lays white eggs, which is not true of the common partridge.

But there are not wanting other proofs of the conjecture I have here made.
Arifotle fpeaking of this fame bird, fays, T $\omega \nu \mu \varepsilon \nu \pi \xi p \delta \partial \mu \omega v$,


Now, the word, naxиabi $\xi_{8 \sigma}$ is clearly formed from the call of the bird alluded to, which does not at all refemble that of the common partridge.

Thus alfo the author of the Elegy on the Nightingale, who is fuppofed by fome to be Ovid, hath the following line:
"Caccabat hinc perdix, hinc gratitat improbus anfer."
fo that the call of the bird mult have had fomething very particular, and have anfwered nearly, to the words $\varkappa \alpha \pi \kappa \alpha 6 \iota\} \varepsilon!$ and caccabat.
I find, indeed, that $M$. de Bufon contends $\ddagger$ that the $\pi \varepsilon p \delta: \xi$ of Arifotle does not mean the common partridge, but the bartavel, with regard to which, I fhall not enter into any difcuffion, but only obferve, that moft of his references are inaccurate, and that he entirely miftakes the materials of which the neft is compofed, according to Arifotle's fixth book, and firft chapter.
But the ftrongeft proof that perdix fignifies the red legged partridge is, that the Italians to this day call this bird pernice, and the common fort ftarna §.

This alfo now brings me to the proofs, of furnus in this paffage of Statius fignifying the common partridge, and not the

Lib, x, c, 23. + Lib, IV, c. 9, $\ddagger$ Orn, T. II. p. 422 § See Olina. farling,

## A P P E N D I X.

cies to fix upon, that may be confidered as in capable of fuch imitations; for it is very clear, from feveral experiments before ftated, that the utmoft endeavours will not be wanting in the bird, if he is endowed with the proper organs.

It can therefore only be fettled by educating a bird, under proper circumftances, whether he is thus qualified or not; for if one was only to determine this point by conjecture, one fhould fuppofe that a fparrow would not imitate the fong of the linnet, nor that a nightingale or partridge could be taught to fpeak.

And here it may not be improper to explain what I mean by birds learning to imitate the notes of others, or the human fpeech.
farling, which I muft admit are not fo ftrong as with regard to the import of the word perdix. If my arguments are not therefore fo convincing on this head, the number of birds taught to fpeak by the Romans, and not by us, muft be reduced to three, as the ftarling is frequently learned to talk in the prefent times.
As I cannot argue from the defcription of the habits of the furnus, or the materials of its neft, as in the former inftance, I muft reft my conjecture (fuch as it is) on the two birds, almoft following each other in thefe lines of Statius; on the common partridge being called farna to this day by the Italians, and upon the Romans having had otherwife no name for our partridge (which is a very common bird in Italy), if furnus is fuppofed to fignify only a farling.

## A P P E N D I X.

If the birds differ little in fhape or fize (particularly of the beak *) the imitation is commonly fo ftrong, that
" Mirê

* It feems very obvious why the firm and fize of the beak may be material ; but I have alfo obferved, that the colour of a bird's bill changes, when in or out of fong; and I am informed, that a cock feldom crows much, but when his comb is red.

When moft of the finch tribe are coming into fong, there is fuch a gradual change in the colour of their bill; thus, thofe of the chaffinch and linnet are then of a very deep blue, which fades away again, when the bird ceafes to be in fong, - This particular fhould be attended to by the ornithologift, in his defcription; becaufe, otherwife, he fuppofes the colour of the bill to be permanent, which is by no means fo.

This alteration, however, rather feems to be the fymptom than the caufe of a bird's coming into fong, or otherwife, and I have never attended to this circumftance in the foft billed birds fufficiently, to fay whecher it hoids alfo with regard् to them.

A very intelligent bird-catcher, however, was able to prog. nofticate, for three winters together, when a nightingale, which I kept fo long, was coming into fong (though there was no change in the colour of the bill), by the dung's being intermixed with large bloody spots, which before was only of a dead white.

This fame bird-catcher was alfo very fuccefsful in his prefcriptions for fick birds, with regard to the ingredienț of which he was indeed very myfterious.
He faid, that as he could not feel their pulfe, the cire cumflances which he chiefly attended to were their weight ${ }_{3}$ as well as both the confiftence and colour of their dung.

He always frankly faid what he expected from his prefcrip: Vol. II.
$\mathrm{Z}_{\mathrm{z}}$
tions

## A $\mathrm{P} \quad \mathrm{P} \quad \mathrm{E}$ N D I X.

" Mirè fagaces falleret hofpites
"Difcrimen obfcurum." Horat.
for, in fuch inftances, the paffages are not only the fame, but the tone.

Such was the event of the experiment I have before mentioned of the linnet educated under a vengolina.

In "ny experiment, however, of teaching the fparrow the notes of the linnet, though the fcholar imitated the paffages of its mafter, yet the tone of the fparrow had by no means the mellownefs of the original.

The imitation might therefore be, in fome meafure, compared to the finging of an opera fong by a black-guard, when, though the notes may be precifely the fame, yet the manner and tone would differ very much.

Thus alfo the linnet, which I heard repeat the words pretty boy, did not articulate like a parrot, though, at the fame time, the words might be clearly diftinguifhed.

The education I have therefore been fpeaking of will not give new organs of voice to a bird, and the inftrument itfelf will not vary, though
tions, and that if fuch and fuch changes did not foon take place, the cafe was defperate. He frequently alfo refufed to prefcribe, if the bird felt too light in the hand, or he thought that there was not fufficient time to bring about an alteration in the dung.
the notes or paffages may be altered almoft at pleafure.

I tried once an experiment, which might indeed have poffibly made fome alteration in the tone of a bird, from what it might have been when the animal was at its full growth, by procuring an operator who caponifed a young blackbird of about fix weeks old; as it died, however, foon afterwards, and I have never repeated the experiment, I can only conjecture with regard to what might have been the confequences of it.

Both * Pliny and the London poulterers agree that a capon does not crow, which I fhould conceive to arife from the mufcles of the larynx never acquiring the proper degree of ftrength, which feems to be requifite to the finging of a bird, from Mr . Hunter's diffections.

But it will perhaps be afked, why this operation fhould not improve the notes of a nefling, as much as it is fuppofed to contribute to the greater perfection of the human voice.

To this I anfwer, that caftration by no means infures any fuch confequence; for the voices of much the greater part of Italian eunuchs are fo indifferent, that they have no means of procuring a livelihood but by copying mufic, and this is one of the reafons why fo few compofitions are

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\text { * Lib. X. c. } 2 \mathrm{r} .
$$

publifhed in Italy, as it would ftarve this refufe of fociety.

But it may be faid, that there hath been a Farinelli and a Manzoli, whofe voices were fo diftinguifhedly fuperior.

To this I again anfwer, that the catalogue of fuch names would be a very fhort one; and that we attribute thofe effects to caftration, which fhould rather be afcribed to the education of thefe fingers.

Caftration commonly leaves the human voice at the fame pitch as when the operation is performed; but the eunuch, from that time, is educated with a view only to his future appearance on the opera fage ; he therefore manages his voice to greater advantage, than thofe who have not fo early and conftant inftruction.

Confidering the fize of many finging birds, it is rather amazing at what a diftance their notes may be heard.

I think I may venture to fay, that a nightingale may be very clearly diftinguifhed at more than half a mile *, if the evening is calm. I have alfo obferved the breath of a robin (which exerted itfelf) fo condenfed in a frofty morning, as to be very vilible.

- Mionf. de Buffon fays, that the quadruped which he terms the buarine, may be heard at the diftance of a league. Ornith. Tomb. I.

To make the comparifon, however, with accuracy, between the loudnefs of a bird's and the human voice, a perfon fhould be fent to the fpot from whence the bird is heard; I fhould rather conceive that, upon fuch trial, the nightingale would be diftinguifhed further than the man.

It muft have ftruck every one, that, in paffing under a houfe where the windows are fhut, the finging of a bird is eafily heard, when, at the fame time, a converfation cannot be fo, though an animated one.

Moft people, who have not attended to the notes of birds, fuppofe that thofe of every fpecies fing exactly the fame notes and paffages, which is by no means true, though it is admitted that there is a general refemblance.

Thus the London bird-catchers prefer the fong of the KentiJb goldfinches, but Effex chaffinches; and when they fell the bird to thofe who can thus diftinguif, inform the buyer that it hath fuch a note, which is very well underftood between them *.
> * Thefe are the names which they give to fome of the nightingale's notes: Sweet, Sweet jug, Jug fweet, Water bubble, Pipe rattle, Bell pipe, Scroty, Skeg, Skeg, Skeg, S.wat frat fwaty, Whitlow whitlow wobitlon, from fome diftant affinity to fuch words.

Some of the nightingale fanciers alfo prefer a Surry bird to thofe of Middlefex ${ }^{*}$.

Thefe differences in the fong of birds of the fame fpecies cannot perhaps be compared to any thing more appolite, than the varieties of provincial dialects.

The nightingale feems to have been fixed upon, almof univerfally, as the moft capital of finging birds, which fuperiority it certainly may boldly challenge: one reafon, however, of this bird's being more attended to than others is, that it fings in the night $\dagger$.

* Mr. Henfaazu informs us, that nightingales in Denmark are not heard till May, and that their notes are not fo fwect or various as with us. Dr. Birch's Hiftory of the Royal Society, Vol. III. p. 189. Whilf Mr. Fletcher (who was minifter from Q. Elizabeth to Rufia) fays, that the nightingales in that part of the world have a finer note than ours. See Fletcher's Life, in the Biograpbia Britannica.

I never could believe what is commonly afferted, that the Czar Peter was at a confiderable expence to introduce finging birds near Peterfourgh; becaufe it appears, by the Fauna Succica, that they have in thofe latitudes moft of the fame birds with thofe of England.

+ The woodlark and reedfparrow fing likewife in the night; and from hence, 'in the neighbourhood of Sbrerwfbury, the latter hath obtained the name of the willow-nightingale. Nightingales, however, and thefe two other birdsz fing alfo in the day, but are not then diftinguifhed in the gezeral concert.


## A P P E N D I X.

Hence Sbakefpeare fays,
"The nightingale, if fhe fhould fing by day,
"When every goofe is cackling, would be thought "No better a mufician than the wren."

The fong of this bird hath been defcribed, and expatiated upon, by feveral writers, particularly Pliny and Strada.

As I muft own, however, that I cannot affix any precife ideas to either of thefe celebrated defcriptions, and as I once kept a very fine bird of this fort for three years, with very particular attention to its fong; I fhall endeavour to do it the beft juftice I am capable of.

In the firft place, its tone is infinitely more mellow than that of any other bird, though, at the fame time, by a proper exertion of its mufical powers, it can be exceffively brilliant.

When this bird fang its fong round, in its whole compafs, I have obferved fixteen different beginnings and clofes, at the fame time that the intermediate notes were commonly varied in their fuccelfion with fuch judgment, as to produce a moft: pleafing variety.

The bird which approaches neareft to the excellence of the nightingale, in this refpect, is the fky lark; but then the tone is infinitely inferior in point of mellownefs: molt other finging birds have not above four or five changes.

The next point of fuperiority in a nightingale

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## A P P E N D I X.

is its continuance of fong, without a paufe, which I have obferved fometimes not to be lefs than twenty feconds. Whenever refpiration, however, became neceffary, it was taken with as much judgment as by an opera finger.

The fkylark again, in this particular, is only fecond to the nightingale *.

* I fhail here infert a table, by which the comparative merit of the-Britiff finging birds may be examined, the idea of which I have borrowed from Monf. de Piles, in his Cours de Peinture par Principes. I thall not be furprized, however, if, as he fuggefts, many may difagree with me about particular birds, as he fuppofes they will do with him, concerning the merits of painters

As I have five columns inftead of the four which $M$. de Piles ufes, I make 20 the point of abfolute perfection, inftead of 16 , which is his ftandard.

|  | $\left\{\begin{array}{c} \text { Mellow- } \\ \text { nefs of } \\ \text { tone. } \end{array}\right.$ | Sprightly notes. | Plaintive notes. | Compafs. | Execution. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nightingale - - | 19 | 14 | 19 | 19 | 19 |
| Skylark - - | 4 | 19 | 4 | 18 | 18 |
| Woodlark - - | 18 | 4 | 17 | 12 | 8 |
| Titlark - - - | 12 | 12 | 12 | 12 | 12 |
| Linnet - - | 12 | 16 | 12 | 16 | 18 |
| Goldfinch - - - | 4 | 19 | 4 | 12 | 12 |
| Chaffinch - - | 4 | 12 | 4 | 8 | 8 |
| Greenfinch - - | 4 | 4 | 4 | 4 | 6 |
| Hedge-fparrow - - | 6 | $\bigcirc$ | 6 | 4 | 4 |
| Aberdavine (or Sikin) | 2 | 4 | $\bigcirc$ | 4 | 4 |
| Redpoll - - - - | $\bigcirc$ | 4 | $\bigcirc$ | 4 | 4 |
| Thrufh - - - | 4 | 4 | 4 | 4 | 4 |
| Blackbird - - - | 4 | 4 | 0 |  | 2 |
| Robin - - - | 6 | 16 | 12 | 12 | 12 |
| Wren - - - - | $\bigcirc$ | 12 | $\bigcirc$ | 4 | 4 |
| Reed-fparrow - - | $\bigcirc$ | 4 | $\bigcirc$ | 2 | 2 |
| 3lack-cap, or the Norfolk Mock nightingale* | 14 | 12 | 12 | 14 | 14 |

[^36]
## A P P E N D I X.

And here I muft again repeat, that what I defrribe is from a caged nightingale, becaule thofe which we hear in the fpring are fo rank, that they feldom fing any thing but fhort and loud jerks, which confequently cannot be compared to the notes of a caged bird, as the inftrument is overftrained.

I muft alfo here obferve, that my nightingale was a very capital bird; for fome of them are fo vaftly inferior, that the bird-fanciers will not keep them, branding them with the name of Frenchmen *.

I have made no mention of the bulfinch in this table, which is commonly confidered as a finging bird; becaufe its wild note, without inftructions, is a moft jarring and difagreeable noife.
I have likewife, omitted * the redtart (which is called by the French Roffignol de Muraille), as I am not fufficiently acquainted with its fong, though it is admired by many; I fhould rather conceive, however, with Zinanni, that there is no very extraordinary merit in the notes.

The London bird-catchers alfo fell fometimes the yellow hammer, twite and brambling $\dagger$ as finging birds; but none of thefe will come within my definition of what may be deemed fo.

* One fhould fuppofe from this, that the nightingale-catcher had heard much of the French mufic; which is poffibly the cafe, as fome of them live in Spittal-fields.
* Il culo ranzo é un ucello, (per quanto dicono) molto canoro, ma io tale non lo ftimo. Delle uova é del nidi, p. $53^{\circ}$
$\dagger$ They call this bird a kate.

But it is not only in tone and variety that the nightingale excells; the bird alfo fings (if I may fo exprefs myfelf) with fuperior judgement and tafte.

I have therefore commonly obferved, that my nightingale began foftly like the ancient orators; referving its breath to fwell certain notes, which by this means had a moft aftonifhing effect, and which eludes all verbal defcription.

I have indeed taken down certain paffages which may be reduced to our mufical intervals; but though by thefe means one may Iform an idea of fome of the notes ufed, yet it is impoffible to give their comparative durations in point of mufical time, upon which the whole effect muft depend.

I once procured a very capital player on the flute to execute the notes which Kircher hath engraved in his Mufurgia, as being ufed by the nightingale; when, from want of not being able to fettle their refpective lengths, it was impofible to obferve any traces almoft of the nightingale's fong.

It may not be improper here to confider, whether the nightingale may not have a very formidable competitor in the American mocking-bird *; though almoft all travellers agree, that the concert in the

[^37]European woods is fuperior to that of the other parts of the globe *.

As birds are now annually imported in great numbers from Afa, Africa, and America, I have frequently attended to their notes, both fingly and in concert, which are certainly not to be compared to thofe of Europe.

Thomfon, the poet, (whofe obfervations in natural hiftory are much to be depended upon) makes this fuperiority in the European birds to be a fort of compenfation for their great inferiority in point of gaudy plumage. Our goldfinch, however, joins to a very brilliant and pleafing fong, a moft beautiful variety of colours in its feathers $\dagger$, as well as a moft elegant fhape.

It muft be admitted, that foreign birds, when brought to Europe, are often heard to a great difadvantage; as many of them, from their great tamenefs, have certainly been brought up by hand, the confequence of which I have already ftated from feveral experiments. The foft-billed birds alfo cannot be well brought over, as the fuccedaneum for

* See Rochefort's Hift. des Antilles, T. I. p. 366.-Ph. Tr. Abr. Vol. Ill. p. 563.-and Catefby.
$\dagger$ I cannot but think, that there would be a demand for thefe birds in Cbina, as the inhabitants are very fedentary, and bird cages are commonly reprefented as hanging in their rooms. I have been informed, by a Tyroleze, that his beft market for Canary birds was Conftantinople.
infects (their common food) is frefh meat, and particularly the hearts of animals.

I have happened, however, to hear the American mocking-bird in great perfection at Meff. Vogle's and Scott's, in Love-Lane, Eafcheap.

This bird is believed to be ftill living, and hath been in England thefe fix years. During the fpace of a minute, he imitated the woodlark, chaffinch, blackbird, thrufh, and fparrow. I was told alfo, that he would bark like a dog; fo that the bird feems to have no choice in his imitations, though his pipe comes neareft to our nightingale of any bird I have yet met with.

With regard to the original notes, however, of this bird, we are filll at a lofs; as this can only be known by thofe who are accurately acquainted with the fong of the other American birds.

Kalm indeed informs us, that the natural fong is excellent *; but this traveller feems not to have been long enough in America to have diftinguifhed what were the genuine notes: with us, mimics do not often fucceed but in imitations.

I have little doubt, however, but that this bird would be fully equal to the fong of the nightingale in its whole compafs; but then, from the attention which the mocker pays to any other fort of difagreeable noifes, thefe capital notes would be always debafed by a bad mixture.

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\text { * Vol. I. p. } 219
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We have one mocking bird in England, which is the fkylark; as, contrary to a general obfervation I have before made, this bird will catch the note of any other which hangs near it; even after the fkylark note is fixed. For this reafon, the bird-fanciers often place the fkylark next one which hath not been long caught, in order, as they term it, to keep the caged fkylark boneft.

The queftion, indeed, may be afked, why the wild fkylark, with thefe powers of imitation, ever adheres to the parental notes ; but it muft be recollected, that a bird when at liberty is for ever fhifting its place, and confequently does not hear the fame notes eternally repeated, as when it hangs in a cage near another. In a wild ftate therefore the fkylark adheres to the parental notes; becaufe the parent cock attends the young ones, and is heard by them for fo confiderable a time, during which, they pay no regard to the fong of any ocher bird.

I am aware alfo, that it may be afked, how birds originally came by the notes which are peculiar to each fpecies. My anfwer, however, to this is, that the origin of the notes of birds, together with its gradual progrefs, is as difficult to be traced, as that of the different languages in nations.

The lofs of the parent-cock at the critical time for inftruction hath undoubtedly produced thofe varieties, which I have before obferved are in the fong of each fpecies; becaufe then the neftling hath either attended to the fong of fome oiher birds;
or perhaps invented fome new notes of its own, which are afterwards perpetuated from generation to generation, till fimilar accidents produce other alterations. The organs of fome birds alfo are probably fo defective, that they cannot imitate properly the parental notes, as fome men can never articulate as they fhould do. Such defects in the parent bird muft again occafion varieties, becaufe theefe defects will be continued to their defcendants, who (as I before have proved) will only attend to the parental fong. Some of there defcendants alfo may have imperfect organs; which will again multiply varieties in the fong.

The truth is, as I have already obferved, that fcarcely any two birds of the fame fpecies have exactly the fame notes, if any are accurately attended to, though there is a general refemblance.

Thus moft people fee no difference between one theep and another, when a large flock is before them. The fhepherd, however, knows each of them, and can fwear to them, if they are loft; as can the Lincolnfire gofherd to each goofe.

As I now draw towards a conclufion of both my experiments and obfervations on the finging of birds; it may be poffibly afked, what ufe refults either from the trouble or expence which they have coft me; both of which I admit to have been confiderable.

I will readily own, that no very important advantages can be derived from them; and yet I fhall

## A P P E N D I X.

not decline fuggefting what little profit they may poffibly be of, though at beft they fhould rather be confidered as what Lord Bacon terms, experiments of light, than of fruit.

In the firft place, there is no better method of inveftigating the human faculties, than by a comparifon with thofe of animals; provided we make it without a moft ungrateful wih of lowering ourfelves, in that diftinguifhed fituation in which we are placed.

Thus we are referred to the ant for an example of induftry and forefight, becaufe it provides a magazine of food for the winter, when this animal is in a ftate of torpidity during that feafon; nor are we lefs willing to fuppofe the fong of birds to be fuperior to our own mufical powers.

The notes of many birds are certainly very pleafing, but by no means ftand in competition either with the human voice or our worft mufical inftruments; nor only from want of the ftriking effects of harmony in many excellent compofitions; but becaufe, even when compared to our fimple melody, expreffion is wanting *, without which mutfic is fo languid and inanimate.

But to return to the ufes (fuch as they are) which may arife from attending to the fong of birds, or from the experiments which I have given an account of.

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The firtt of thefe is too much neglected by the naturalift; for, if the bird is not caught, the only means often by which either the fex or the fpecies can be determined is the fong. For example, if Monf. Adanfon had informed us whether the European fwallows, which he conceived were to be feen during the winter at Senegal, had the fame notes with thofe of Europe, it would have been going one ftep further in proof of the facts which he and others fo much rely upon.

Thefe experiments, however, may be faid to be ufeful to all thofe who happen to be pleafed with finging birds; becaufe it is clear, that, by educating a bird under feveral forts, we may often make fuch a mixture, as to improve the notes which they would have learned in a wild ftate.

It refults alfo from the experiment of the linnet being educated under the Vengolina, that we may introduce the notes of Afa, Africa, and America, into our own woods; becaufe, if that linnet had been fet at liberty *, the neftlings of the next feafon would have adhered to the Vengolina fong, who would again tranfmit it to their defcendants.

* I know well, that it is commonly fuppofed, if you fet a caged bird at liberty, it will neither be able to feed itfelf, nor otherwife live long, on account of its being perfecuted by the wild ones. There is no foundation, however, for this notion ; and I take it to arife from its affording an excufe for continuing to keep thefe birds in confinement,

But we may not only improve the notes of birds by a happy mixture, or introduce thofe which were never before heard in Great Britain; we may alfo improve the inftrument with which the paffages are executed.

If, for example, any one is particularly fond of what is called the fong of the Canary bird, it would anfwer well to any fuch perfon, if a nefling linnet was brought up under a Conary bird, becaufe the notes would be the fame, but the intrument which executes them would be improved.

We learn alfo, from thefe experiments, that nothing is to be expected from a nefling brought up by hand, if he does not receive the proper inftruction from the parent cock: much trouble and fome coft is therefore thrown away by many perfons in endeavouring to rear neltling nightingales, which, when they are brought up and fed at a very confiderable expence, have no fong which is worth attending to.

If a woodlark, or fkylark, was educated, however, under a nightingale, it follows that this charge (which amounts to a fhilling per week *) might be in a great meafure faved, as well as the trouble of chopping frefh meat every day.
> * Olina fpeaks of a pafte which is ufed in Italy for nightin ${ }_{7}$ gales; but I cannot find that it ever anfwers with us; perhaps, they bring their nightingales up by hand, and fo accuftom them from their earlieft infancy to fuch food.

> A.a A night

A nightingale, again, when kept in a cage, does not live often more than a year or two; nor does he fing more than three or four months; whereas the fcholar pitched upon may not only be more vivacious, but will continue in fong nine months out of the twelve.

I fear, however, that I have already dwelt too much upon thefe very minute and trifing advantages which may refult from my experiments and obfervations; I fhall therefore no longer defer fubfcribing myfelf,

Dear Sir,

Your moft faithful,

Humble Servant,

Daines Barrington.

## ches.



Williams Sc.


$2!$ B.


Allegro
If b.





## $A \quad P \quad P \quad E \quad N \quad D \quad I \quad X$.

No. VI.

## Of the MIGRATION of BRITISH BIRDS.

> 2uam multce glomerantur aves! ubi frigidus annus Trans pontum fugat, et terris immittit apricis.

Virgil.

THE migration of birds, is a fubject of fo curious a nature, that every one who attempts to write the natural hiftory of animals, ought to look upon it as an effential part of his inquiries, and at the fame time fhould endeavour to affign the caufe why forme birds prefer certain places for their fummer, others for their winter refidence.

To be qualified for this tafk, it is neceffary that the inquirer fhould confine himfelf to one certain tract the whole year; he fhould be diligent in obferving the arrival, and the difappearance of birds; he fhould commit every obfervation to paper, and compare them with the remarks of correfpondents, on the fame fubject, that lie on every fide of him. He fhould attend likewife to the weather; and to the plenty or failure of fruits and

[^39]berries; as on thefe accidents many curious remarks may be founded. He fhould cultivate an acquaintance with the gentlemen of the navy, and other fea-faring people; he fhould confule their journals, to difcover what birds light on their fhips, at what feafons, in what latitudes, and in what weather, and from what points; and thus trace them in their very courfe.

A comparative view of the writings of thofe who fhould embrace this part of natural hiftory, would throw great light on the fubject. But it is to be lamented, that none, except two northern naturalifts, Mr. Klein and Mr. Ekmarck, have profeffedly treated on this point. The fouthern parts of Europe, which may be fuppofed to receive, during winter, many of our land birds, have as yet produced no founift to affift the inquiries of the naturalifts, which muft account for the imperfect knowledge we have of the retreat of many of our birds.

We muft not omit, however, our acknowledgements to two eminent pens that have treated this fubject as far as it related to rural œconomy; and, in fuch a manner, as does honour to their refpective countries; we mean Mr. Alex. Mal. Berger and Mr. Stillingfleet: whom we fhould not mention a fecond time *, but to confefs the aid we here receive from their faithful attention to the fubject in queftion.

* Vide Preface.


## A $\quad \mathrm{P} \quad \mathrm{P} \quad \mathrm{E} \quad \mathrm{N} D \mathrm{I}$ X.

We wifh that any thing we could fay would induce others of our countrymen to follow their example: they need not fear that the matter is exhaufted, for every county will furnifh new obfervations; each of which, when compared, will ferve to ftrengthen and confirm the other. Such an amufement is worthy of every one, beneath none; but would become no order of men better than our clergy, as they are (or ought to be) the beft qualified, and the moft fationary part of the community; and, as this is a mixed fpecies of ftudy (when confidered as phyfico-theology) it is therefore particularly pertinent to their profeffion. A moft ingenious friend, whom modefty prevents from putting his name to a work that renders obfervations of this kind of the utmoft facility, has pointed out the way, and methodized every remark that can occur; the farmer, the fportfman, and the philofopher, will be led to the choice of materials proper to be inferted in that ufeful companion, the Naturalif's Fournal*.

From the obfervations of our friends, from thofe made by ourfelves, and from the lights afforded us by preceding writers, we fhall, in the brief relation we can pretend to give, proceed in a generical order, and as far as poffible, trace each fpecies of bird to its retreat.

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A few words will explain the caufe of their difappearance in thefe northern regions; a defect of food at certain feafons, or the want of a fecure afylum from the perfecution of man during the time of courthip, incubation and nutrition.

Hawks. Eagles, and all the ignoble fpecies of this genus breed in Great Britain; of the Falcons, we only know that which is called the Peregrine, which builds its neft annually in the rocks of Llandidno, Caernarvonfbire; and the Gentil, and the Gofbawk which breed in Scotland.

We are affured that every fpecies breeds in England, except the little $O w l$, and fbort eared Owl. The laft breeds in Scotland, and the Orkney inles, but migrates into England at the fame feafon as the Woodcocks do. Hawks and owls are birds of prey, and having at all times in this inland means of living, are not obliged to quit their quarters.

Shrikes.
The Fluber, or red back Sbrike, and the great Sbrike, breeds with us; we have not heard of the other, fo fulpect that it migrates.

Crows. Of this genus, the Hooded Crow migrates regularly with the Woodcock. It inhabits Nortb Britain the whole year: a few are faid annually to breed on Dartmoor, in Devonflire. It breeds alfo in Sweden and Auftria, in fome of the Swedifo provinces it only fhifts its quarters, in others it re-
fides

## A. P P E N D I-X.

lides throughout the year. I am at a lofs for the fummer retreat of thofe which vifit us in fuch numbers in winter, and quit our country in the fpring. And for the reafon why a bird, whofe food is fuch that it may be found at all feafons in this country, fhould leave us.

Difappears early in autumn; the retreat of this Cucroo. and the following bird is quite unknown to us.

Is a bird that leaves us in the winter. If its diet Wryneck. be ants alone, as feveral affert, the caufe of its migration is very evident. This bird difappears before winter, and revifits us in the fpring a little earlier than the Cuckoo.

Continue with us the whole year; their food being the larva of infects, which lodge themfelves at

Woodpeck. ERS. all times in the bark of trees.

Continues here through all feafons.
Refides in this country the whole year.

Comes to England but by accident: we once in-
Hoopoz. deed heard of a pair that attempted to make their neft in a meadow at Selborne, Hampfbire, but were frighted away by the curiofity of people. It breeds in Germany.

Never leaves the country.
Creeper.

The

## A P P E N D I X.

Groùs.
The whole tribe, except the Quail, lives here all the year round: that bird either leaves us, or elfe retires towards the fea-coafts *.

Bustard.
Inhabits our downs and their neighborhood all the year.

Piseonso. Some few of the Ring-doves breed here; but the multitude that appears in the winter, is fo difproportioned to what continue here the whole year, as to make it certain that the greateft part quit the country in the fpring. It is moft probable they go to Sueden to breed, and return from thence in autumn; as Mr. Ekmark informs us they entirely quit that country before winter $\dagger$. Multitudes of the common Wild Pigeons alfo make the northern setreat, and vifit us in winter; not but numbers breed in the high cliffs in all parts of this inand. We fufpect that the Turtle leaves us in the winter, at left changes its place, removing to the fouthern counties.

Stare。
Breeds here; poffibly feveral remove to other countries for that purpofe, fince the produce of thofe that continue here, feems unequal to the clouds of them that appear in winter. It is not unlikely that many migrate into Sueden, where Mr. Berger obferves they return in fpring.

> Fide p. 277. of this work.
> + Ameen. Acad. IV. 592 .

The Fieldfare and the Redroing breed and pals Thrushes. their fummers in Norway, and other cold countries; their food is berries, which abounding in our kingdoms, tempts them here in the winter. Thefe two and the Royfon crow, are the only land birds that reguiarly and conftantly migrate into England, and do not breed here. The Hawefinch and Crofsbill come here at fuch uncertain times, as not to deferve the name of birds of paffage ; and, on that account, rather merit a place in the appendix than in the body of the work.

The Cbatterer appears annually about Edinburgb in flocks during winter; and feeds on the berries

Chatter. ER. of the mountain afh. In South Britain it is an accidental vifitant.

The Grobbeak and Crofsbill come here but fel- Grosbeaks. dom; they breed in Aufria. I fufpect that the Pine Grobbeak breeds in the forefts of the Highlands of Scotland.

All the genus inhabits this kingdom throughout Buntings. the year, except the greater Brambling, which is forced here from the north in very fevere feafons.

All continue in fome parts of thefe kingdoms,
Finches. except the Sijkin, which is an irregular vifitant, faid to come from Ruflia. The Linnets fhift their quarters, breeding in one part of this inand, and
remove with their young to others. All finches feed on the feeds of plants.

Larks, Fiycatchers, Wagtails, AND Warblers.

All of thefe feed on infects and worms; yet only part of them quit thefe kingdoms; though the reafon of migration is the fame to all. The Nigbtingale, Black-cap, Fiy-catcber, Willorw-weren, Wheatear, and White-tbroat, leave us before winter, while the fmall and delicate Golden-crefted Wren braves our fevereft frofts. We imagine that the migrants of this genus continue longeft in Great Britain in the fouthern counties, the winter in thofe parts being later than in thofe of the north; Mr. Stillingfleet having obferved feveral Wheat-ears in the iffe of Purbeck the 18 th of November laft. As thefe birds are incapable of very diftant flights, we fufpect that Spain, or the fouth of France, is their winter afylum.

Titmice.

Never quit this country; they feed on infects and their larve.

Swailows, and GoatEUCKER.

Every fpecies difappears at approach of winter.

## W A T ER FO W L.

OF the vaft variety of water fowl that frequent Great Britain, it is amazing to reflect how few are known
known to breed here: the caufe that principally urges them to leave this country, feems to be not merely the want of food, but the defire of a fecure retreat. Our country is too populous for birds fo fhy and timid as the bulk of thefe are: when great part of our inland was a mere wafte, a tract of woods and fen; doubtlefs many fpecies of birds (which at this time migrate) remained in fecurity throughout the year. Egrets, a fpecies of Heron, now fcarce known in this inland, were in former times in prodigious plenty; and the Crane, that has totally forfaken this country, bred familiarly in our marfhes: their place of incubation, as well as of all other cloven footed water fowl (the Heron excepted) being on the ground, and expofed to every one: as rural œconomy increafed in this country, thefe animals were more and more difturbed; at length, by a feries of alarms, they were neceffitated to feek, during the fummer, fome lonely fafe habitation.

On the contrary, thofe that build or lay in the almoft inacceffible rocks that impend over the Britifh feas, breed there ftill in vaft numbers, having little to fear from the approach of mankind: the only difturbance they meet with in general, being from the defperate attempts of fome few to get their eggs,

## CLOVEN FOOTED WATER FOWL.

Herons. THE Wbite Heron is an uncommon bird, and vifits us at uncertain feafons; the common kind and the Bittern never leave us.

Curlews. The Curlew breeds fometimes on our mountains; but, confidering the vaft flights that appear in winter, we imagine the greater part retire to other countries: the Wbimbrel breeds in the Grampian Hills, in the neighbourhood of Invercauld.

Smipes.
The Woodlock breeds in the moift woods of Sweden, and other cold countries. Some Snipes breed here, but we believe the greateft part retire elfewhere; as do every other fyecies of this genus.

Sandipers.
The Lapwing continues here the whole year; the Ruff breeds here, but retires in winter; the Red/bank and Sandpiper breed in this country, and refide here. All the others abfent themfelves during fummer.

Plovers AND
Oyster-
catcher.

The long legged Plover and Sanderling vifit us only in winter; the Dottrel appears in fpring and in autumn, yet what is very fingular we do not find it breeds in South Britain. The oyfer-catcher lives
lives with us the whole year. The Norfolk Plover and Sea Lark breed in England. The Green Plover breeds on the mountains of the North of England, and on the Grampian Hills.

We muft here remark, that every fpecies of the genera of Curleros, Woodcocks, Sandpipers and Plovers *, that forfake us in the fpring, retire to Sweden, Poland, Pruffia, Norway, and Lapland to breed; as foon as the young can fly, they return to us again; becaufe the frolts which fet in early in thofe countries totally deprive them of the means of fubfifting; as the drynefs and hardnefs of the ground, in general, during our fummer, prevent them from penerrating the earth with their bills, in fearch of worms, which are the natural food of thefe birds.

Every fpecies of thefe two genera continue with us the whole year; the Land Rail excepted, which

Railsand Gallinules.

* Mr. Ekmarck fpeaks thus of the retreat of the whole tribe of cloven footed water fowl out of his country (Srweden) at the approach of winter; and Mr. Klein gives much the fame account of thofe of Poland and Prulfa.

Gralla (tanquam conjuratr) unanimiter in fugam fe conjiciunt, ne earum unicam quidem inter nos habitantem invenire poffumus. Aman. Acad. IV. 588.

Scolopaces et Glareola incredibilibus multitudinibus verno tempore in Polonia et Borufia nidulantur; appropinquante autumno turmatim evolant. Klein de av. errat. $18 \%$
is not feen here in winter. It likewife continues in Ireland only during the fummer months, when they are very numerous, as Mr. Smith tells us in the hiftory of Waterford, p. 336. Great numbers appear in Anglefea the latter end of May; it is fuppofed that they pafs over from Irelond, the pafage between the two inlands being but fmall. As we have inftances of thefe birds lighting on Ships in the Cbannel and the Bay of Bijcay, we conjecture their winter quarters to be in Spoin.

## FINNED FOOTED WATER BIRDS.

PhalaroPES.

VISIT us but feldom; their breeding place is Lapland*, and other arctic regions.

Coor. Inhabits Great Britain the whole year.
Grebes.
The great crefted Grebe, the black and wobite Grebe, and little Grebe breed with us, and never migrate; the others vifit us accidentally, and breed in Lapland.

## WEB-FOOTED BIRDS.

Avoset
BREED near Fofsdike in Lincolnfbire; but quit their quarters, in winter. They are then fhot in

- Aman. Acad. IV. 590.
different parts of the kingdom, which they vifit I believe not regularly but accidentally.

The great Auk or Pinguin fometimes breeds in St. Kilda. The Auk, the Guillemot and Puffin inhabit moft of the maritime cliffs of Great Britain, in amazing numbers, during fummer. The black Guillemot breeds in the Bafs IJle, and in St. Kilda, and fometimes in Llandidno rocks. We are at a lofs for the breeding place of the other fpecies; neither can we be very certain of the winter refidence of any of them, excepting of the leffer Guillemot and black-billed Auk, which, during winter, vift in valt flocks the Frith of Forth.

Thefe chiefly breed in the lakes of Sweden and Lapland, and fome in countries nearer the Pole*; but fome of the red throated Divers, the northern and the imber, may breed in the north of Scotland and its ines.

I am uncertain where the black toed Gull breeds. The Skua is confined to the Sbetland Ifes, the Rock Foula, and perhaps St. Kilda. The Arctic breeds in the Orknies and in the Hebrides. The reft of the tribe breed difperfedly on all the cliffs of Great Britain. The black beaded on our fens and lakes.

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## A P P E N D I X.

Terns.

Petrels.

Every fpecies breeds here; but leaves us in the winter.

The Fulmar breeds in the ifle of St. Kilda, and continues there the whole year, except Sepiember and part of October; the Sbearwater vifits the Ifle of Mon in April, breeds there, and leaving it in Auguft or the beginning of September, difperfes over all parts of the Atlantic Ocean. The Stormfinch is feen at all diftances from land on the fame vaft watery tract, nor is ever found near fhore except by fome very rare accident, unlefs in the breeding feafon. We found it on fome little rocky inles, off the north of Skie. It alfo breeds in St. Kilda. We alfo furpect that it neftles on the Blafquet ines off Kerry, and that it is the Gourder of Mr. Smith **.

MerganSERS.

This whole genus is mentioned among the birds that fill the Lapland lakes during fummer. I have feen the young of the Red-breafted in the north of Scotland: a few of thefe, and perhaps of the Goofanders may breed there.

Ducks.
Of the numerous fpecies that form this genus, we know of few that breed here. The Swan and Goofe, the Skield Duck, the Eider Duck, a few Shovelers, Garganies, and Teals, and a very fmal! portion of the wild Ducks.

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## A P P E N D I X.

The reft contribute to form that wing multitude of water fowl, that annually: ${ }^{\circ}$ ir from moft parts of Europe to the woods and lakes of Lapland and other arclic regions*, there to perform the functions of incubation and nutrition in full fecurity. They and their young quit their retreat in September, and difperfe themfelves over Europe. With us they make their appearance the beginning of October ; circulate firft round our fhores, and when compelled by fevere froft, betake themfelves to our lakes and rivers. Of the web-footed fowl there are fome of hardier conftitutions than others; thefe endure the ordinary winters of the more northern countries, but when the cold reigns there with more than common rigor, repair for fhelter to thefe kingdoms: this regulates the appearance of fome of the Diver kind, as alfo of the wild Sroans,

* Barentz found the Bernacles with their nefts in great nums bers in Nowa Zembla. Collecz. voy. Dutch Eaf-India Company, 8vo. 1703. p. 19. Clufus in his Exot. 368. alfo obferves, that the Dutch difcovered them on the rocks of that country and in Waygate Straits. They, as well as the other fpecies of wwild Geefe, go very far north to breed, as appears from the hiftories of Greenland and Spitsbergen, by Egede and Crantz. Thefe birds feem to make Iceland a refting place, as Horrebory obferves, few continue there to breed, but only vifit that ifland in the fpring, and after a fhort ftay, retire ftill further north.

The Swolloss tailed Sbield Dusk breeds in the Icy Sea, and is forced fouthward only in the very hatd winters. Amart. Acaut. IV. 585

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the

## A $\mathrm{P} \quad \mathrm{P} \quad \mathrm{E} \quad \mathrm{N} \quad \mathrm{D} \mathrm{I} \mathrm{X}$.

the Swallow tailed Sbield Duck, and the different forts of Goofanders which then vifit our coafts.

Corvo. RANTS.

The Corvorant and Sbag breed on moft of ous high rocks: the Gannet in fome of the Scotch inles, and on the coait of Kerry: the two firf continue on our fhores the whole year. The Gennet difperfes itfelf all round the feas of Great-Britain, in purfuit of the Herring and Pilcbard, and even as far as the Tagus to prey on the Sardina.

But of the numerous fpecies of fowl here enumerated, it may be obferved how very few entrult themfelves to us in the breeding feafon; and what a diftant llight they make to perform the firft great dictate of nature.

There feems to be ficarcely any but what we have traced to Lapland, a country of lakes, rivers, fiwamps and alps *, covered with thick and gloomy forets, that afford fhelter during fummer to thefe fowls, which in winter difperfe over the greateft part of Europe. In thofe aritic regions, by reafon of the thicknefs of the woods, the ground remains moift and penetrable to the Woodcocks, and other flender billed fowl: and for the web-footed birds $\dagger$, the waters afford larve innumerable of the torment-

> * Flora Lapponica Lectori et Proleg.

+ A difciple of Linnaus, fpeaks thus of their food, Lapponia, ubi victum ox larvis et pupis culicum, altrix paravit numinis
tormenting Knat. The days there are long; and the beautiful meteorous nights indulge them with every opportunity of collecting fo minute a food: whilft mankind is very fparingly fcattered over that vaft northern watte.

Why then fhould Linncus, the great explorer of thefe rude deferts, be amazed at the myriads of water fowl that migrated with him out of Lapland? Which exceeded in multitudes the army of Xerxes; covering, for eight whole days and nights, the furface of the river Calix *. His partial obfervation as a botanift, would confine their food to the vegetable kingdom, almoft denied to the Lapland waters; inattentive to a more plenteous table of infect food, which the all bountiful Creator had fpread for them in the wildernefs $\dagger$. numinis munificentia. Aman. acad. IV. I. 5. M. de Mattpertuis makes the fame obfervation, Ce ruiffeau nous conduifit a un lac fi rempli de petits grains jaunatres de la groffeur du Mil que toute fon eau en etoit teinte. Je pris ces grains pour la Cbrysalide de quelque infecte, \&c. Oeurres ds M. de Maupertuis, 11I، 116 .

* Flora Lapponica, 273. Aman. acad. IV. 570.
$\dagger$ It may be remarked, that the lakes of mountanous rocky countri s in general are deftitute of plants: few or none are feen on thofe of Switzerland; and Linnceus makes the fame obfervation in refpect to thofe of Lapland; having, during his whole tour, difcovered only a fingle fpecimen of a lemna trifulca, or ivy leaved duck's meat. Flora Lap. No. 470. a few of the fiirpus lacufris, No. 18. or bullrufh; the alopecurus gेeniculatus, No. 38. or flote foxtail grafs; and the ranunculus aquatilis, No. 234. which are all he enumerates in his Prolegomena to that excellent performance.


## No. VII.

EXTRACTS from old ENGLISH WRITERS relating to our ANIMALS.

MENTION having been fo frequently made, in this work, of the old Englijh feats, and the fpecies of animals that formed the good cheer; we tranfcribe from Leland an account of that given at the intronazation of George Nevell, archbishop of York, in the reign of Edward IV. and of the goodly provision mede for the Same.
In wheat, 300 quarters. In bitters, - - 204. In ale, - 300 tunne. Heronfhawes, - 400. Wyne, - roo tonne. Feffauntes, - 200. Of ypocraffe - 1 pype. Partriges, - - 500. In oxen, - - 104. Wodcocker, - 400. Wylde Bulles, - - 6. Curlewes, - - 100. Muttons, - - 1000. Egrittes, - 1000. Veales, - - - 304. Stagges, buck and roes, Porkers, - - 304. 500 and mo. Swannes, - - 400. Parties of venifon colde, Geefe, - - 2000. Capons, - - 1000. Pygges, - - 2000. Plovers, - - 400. Quakes, - 100 dozen. Of the fouls called res, 200 dozen. In peacocks, - 104. Mallards and tales, Hot patties of venifon, 4000.

In cranes, - - 204.
Hot cuftardes, 2000. In kyddes, - 204. Sykes and breames, 608. In chickens, - 2000. Pigeons, - - 4000. Conses, - 4000 .

Spices, fugared delicates, and wafers plentie.

Befides

## A P P E N D I X.

Befides the birds in the above lift, there are mentioned, in the particular of the courfes*, Redjanks, Styntes, Larks and Martynettes roft; if the laft were the fame with the martin fwallow, our anceftors were as general devourers of fmall birds as the Italians are at prefent, to whom none come amifs.

We muft obferve, that in the order of the courfes it appears, that only the greateft delicacies were ferved up, as we may fuppofe, to the table where the nobility, gentlemen, and gentlewomen of worrbip were feated; and thofe feemed to have been dreffed with almoft as much art and difguife as at prefent. They had likewife their defert, or, as the term was, fulteltie; which was in form of dolphins or other animals; and fometimes recourfe was had to the kalendar to embellifh the table, and St. Paul, St. Tbomas, St. Durntan, and a whole multitude of angels, propbetes and patriarkes $t$, were introduced as futtelties to honor the day.

As no mention is made among the difhes that compofed two of the courfes, of the geefe, the pygges, the veales, and other more fubftantial food, thofe muft have been allotted to the franklins and bead yeomen in the lower ball: and thofe moft fingular provifions, the porpofes and feales, inde-

> Leland's collectanea, vi. 2 .
> + Idem, 23 .

Bbb3
licate

## A P P E N D I X.

licate as they may feem at prefent, in old times were admitted to the beit tables: the former, at left, as we learn from doctor Caius *, who mentions it not only as a common food, but even defcribes its fauce,

A tranfcript from that curious publication, The Regulations of the Houbold of the fifth Earl of Northumberland, begun in 1512, will be efteemed a very proper appendage to a work of this nature. It will fhew not only the birds then in high vogue at the great tables of thofe days, but alfo how capricious a thing is tafte, feveral then of high price being at prefent banifhed from our tables; and others again of uncommon ranknefs much valued by our anceftors.

Thus Werions (I give the fpelling of the time) See-pyes, Sbolardes, Kyrlewes, Ternes, Cranys, Hea-ron-Seuys, Bytters, See-gulles and Styntes, were among the delicacies for principal feafts, or his Lordfhip's own mees.

Thofe excellent birds the Tieylles were not to be bought except no other could be got.

Fefountes, Bytters, Hearon-Sewy's and Kyrlewes were valued at the fame price, twelve pence each.

The orher birds admitted to his Lordhip's table were Buitardes, Mallardes, Woodcokes, Wypes, 2uayles, Siypes, Pertryges, Redefbankes, Reys, Pacokes, Knottes, Dottrells, Larkys ạnd fimall byrdes.

[^44]
## A P P E N D I X.

The great byrdes, for the Lord's mees, for the Chambreleyn and Stewardes mees may be, as the ingenious editor conjectures, Fieldfares, Thruhes and the like *.

The eftimation each fpecies was held in may be known by the following table, to which I have added the modern name, and the reference to it in this work.

| Cranys, the Crane, | 534, | 16 d . |
| :---: | :---: | :---: |
| Hearon-Serwy, the Heron, | 355, | 12 d . |
| Mallards, | 500, | 2 d |
| Teylles, Teal, | 513, | Id. |
| Woodcock, | 365, | d. or Id. $\frac{1}{2}$. |
| Wypes, Lapwings, | 381. |  |

Sea-gulls, Black-headed Gull, 456, Id. or Id. $\frac{1}{2}$.
Styntes, Purrs,
Quails,
397, 6d. a dozen.

Snipes,
234, 2 d .
Partridges,
378, 3 d. a dozen.
Red-fhanks,
233, 2 d .
Bytters, Bitterns,
376
Id.

Pheafants,
Reys, Land Rails $\dagger$,

| 358, | 12 d, |
| ---: | ---: |
| 238, | 12 d, |
| 410, | 2 d, |

$$
\text { * P. 104. } 424 .
$$

$\dagger$ I imagine the Reys to be the Land Rail, not the Receve the female of the Ruff, for that bird feems not to be in vogue in thofe days. Old Drayton does not even mention it in his long catalogue of birds, but fets $a$ high value upon The Rayle which feldom comes but upon rich men's fpits *. * Polyplbion. Canto XXV.

$$
\text { B b b } 4
$$

Sbolardes,

|  | Page. | Price. |
| :---: | :---: | :---: |
| Sbolardes, Shovelers, | 504, | 6 d. |
| Kyrlewes, Curlews, | 362, | 12 d . |
| Peacocks, | 236, | 12 d . |
| Sea Pies, | 405. |  |
| Wigeons, | 509, | Id. |
| Knots, | 387, | Id. |
| Dotrels, | 401, | Id. |
| Buttards, | 24 I . |  |
| Terns, | 459, | d. a dozen. |
| Great birds, |  | Ditto. |
| Simall birds, |  | d. a dozen. |
| Larks, | 12 d . | two dozens. |

## No. VIII.

## A SYSTEMATIC ARRANGEMENT of the BIRDS of GREAT BRITAIN, with the names in the antient BRITISH.

## GENUSI.

FALCON.

| 1. YOLDEN Eagle, | Eryr melyn. |
| :--- | :--- |
| 2. Black Eagle, | Eryr tinwyn. |
| 3. Sea Eagle, | Mor-Eryr. |
| 4. Cinereous, | Eryr cynfonwyn. |
| 5. Ofprey, | Pyfg Eryr: Gwalch |
|  | y weilgi. |

6. Gyrfalcon,
7. Peregrine Falcon,
8. Grey,
*9. Gentil,
9. Lanner,
10. Gofhawk,
11. Kite,
12. Buzzard,
13. Spotred,

Hebog chwyldro.
Hebog tramor, Cammin.
Hebog, Gwalch.
Hebog mirain.
Hebog gwlanog.
Hebog Marthin.
Barcud.
Bod teircaill.
Bod mannog. 15. Honey

## A P P E N D I X.

15. Honey Buzzard,
16. Moor Buzzard,
17. Hen-Harrier,
18. Ringtail,
19. Keftrel,
20. Hobby,
21. Sparrow Hawk,
22. Merlin,

Bod y mel.
Bod y gwerni. Barcud glâs.
Bod tinwyn.
Cudyll côch.
Hebog yr Hedydd.
Gwepia.
Corwalch, Llymyften.
II.

O W L.

* 1. Eagle,

2. Long eared,
3. Short eared,
4. White,
5. Tawny,
6. Brown,
7. Little,

Y Ddylluan fawr.
Dylluan gorniog.
Dylluan gluftiog.
Dylluan wen.
Dylluan frech.
Aderyn y Cyrph.
Coeg Ddylluan.

## III.

## S H R I K E.

1. Great,
2. Red backed,
3. Wood chat?

Cigydd mawr.
Cigydd cefn-goch.
Cigydd glâs.

## A P P E N DI X.

## IV.

$$
C \quad R \quad O \quad W .
$$

I. Raven,
2. Carrion,
3. Rook,
4. Hooded,
5. Magpie,
6. Jay,
7. Red legged,
8. Jackdaw,

Cigfran.
Brân dyddyn.
Ydfran.
Bran yr Jwerddon.
Biogen,
Screch y Coed.
Brain big gôch.
Cogfran.
V.

## C U CK OO.

1. Cuckoo,

Cog.
VI.

W R Y N E CK.
I. Wryneck,

Gwas y gôg, Fwdfro.
VII.

WO OD PE CK ER.

1. Green,

Cnocell y coed, Delor y derv.
2. Great

## VIII.

## K I NGFISHER.

I. Kingfifher, Glâs y dorlan.
IX.
$N \quad U \quad T \quad H \quad A \quad T \quad C \quad H$.

1. Nuthatch, Delor y enau.
X.

## H O O P O E.

1. Hoopoe, Y Goppog.
XI.

## $C R E E P E R$.

i. Creeper,

Y Grepianog.
XII.

## A P P E N D I X.

## XII.

## $G \quad R \quad O \quad U \quad$.

| 1. Wood, | Ceiliog coed. |
| :--- | :--- |
| 2. Black, | Ceiliog dû. |
| 3. Red, | Ceiliog Mynydd, Jâr |
| fynydd. |  |
| 4. Ptarmigan, | Coriar yr Alban. |
| 5. Partridge, | Coriar, Petrifen. |
| 6. Quail, | Sofliar, Rhinc. |

## XIII.

## $B \quad U \quad S \quad T \quad A \quad R \quad D$.

| 1. Great, | Yr araf ehedydd. |
| :--- | :--- |
| *2. Leffer, | Araf ehedydd Lleiaf. |
| 3. Thick-kneed, | Y Glin-braff. |

## XIV.

## P I G E O N.

1. Common,
2. Ring,
3. Turtle,

Colommen.
Yfguthan.
Colommen fair, Turtur.
$X V$ 。

$$
S \quad T, \quad A \quad R \quad E .
$$

1. Stare,

Drydwen, Drydwy.

## XVI.

## $T H R U S H$.

r. Miffel,
2. Fieldfare,
3. Throftle,
4. Redwing,
5. Blackbird,
6. Ring-ouzel,
7. Water-ouzel,

Trefglen, Pen y Liwyn.
Cafeg y ddryccin.
Aderyn bronfraith.
Soccen yr eira, Y drefclen gôch.
Mwyalch, Aderyn dû.
Mwyalchen y graig.
Mwyalchen y dwfr.
XVII.

C H A T•T E R E R.
ı. Waxen,

Sidan-gynffon.

## XVIII.

$G \quad R \quad O \quad S \quad B \quad E \quad A \quad K$.

1. Haw,

Gylfinbraff,

* 2. Pine


## A P P E N D I X.

*2. Pine.
3. Crofs-billed,
4. Bulfinch,
5. Green,

Gylfingroes.
Y Chwybanydd, Rhawn goch.
Y Gegid, Llinos werdd.

## XIX.

## B U.N T I N G.

I. Common,
2. Yellow,
3. Reed,
4. Tawny,
5. Snow,
6. Mountain,

Brâs y ddruttan, Brâs yr yd.
Llinos felen.
Golfan y cyrs.
Golfan rhudd.
Golfan yr eira.
Yr Olfan leiaf.
XX.

F I N C H.
I. Gold,
2. Chaff,
3. Brambling,
4. Sparrow,

Gwas y Sierri. Afgell arian, Winc.
Bronrhuddyn y mynydd.
Aderyn y to, Golfan.
5. Tree
5. Tree Sparrow,
6. Sifkin,
7. Linnet,
8. Red-headed Linnet, Llinos bengoch.
9. Lefs red-headed Linnet, Llinos bengoch leiaf.
10. Twite,

Golfan y mynydd. Y Ddreiniog. Llinos. Llinos fynydd.

## XXI.

F L Y-CATCHER.
I. Spotted,

- Pied,

Y Gwybedog.
Clochder y mynydd.

## XXII.

$$
\mathrm{L} \quad \mathrm{~A} \quad \mathrm{R} \quad \mathrm{~K} .
$$

1. Sky,
2. Wond,
3. Tit,
4. Field,
5. Red,
6. Crefted,

Hedydd, Uchedydds
Hedydd y coed.
Cor Hedydd.
Hedydd y cae.
Hedydd rhudd.
Hedydd coppog.

## XXIII.

W A G T A I L.

1. White,

Brith y fyches, Tinfigl y gwys.
2. Yel-

| 2. Yellow, | Brith y fyches felen. |
| :--- | :--- |
| 3. Grey, | Brith y fyches lwyd. |

## XXIV.

## W. A R B L R S.

1. Nightingale,
2. Rediftart,
3. Redbreaft,
4. Blackcap,
5. Pettychaps,
6. Hedge,
7. Yellow,

* 8. Scotch.

9. Golden-crefted,
10. Wren,
11. Sedge,
12. Grafshopper,
13. Wheatear,
14. Whinchat,
15. Stonechatter,
16. Whitechroat,
*17. Dartford.

Eos.
Rhonell goch.
Yr Hobigoch. Brongoch.
Penddu'r brwyn.
Y Ffigyfog.
Llwyd y gwrych.
Dryw'r helyg. Sy-
widw.
Yfwigw, Sywigw.
Dryw.
Hedydd yr helyg.
Gwich hedydd,
Tinwyn y cerrig.
Clochder yr eithin.
Clochder y cerrig.
Y'gwddfgwyn.

Vos. II.
C c
XXV.

## XXV.

## T I T M O U S E.

1. Great,
2. Blue,
3. Cole,
4. Marfh,
5. Longtailed,
6. Bearded,

Y Benloyn fwyaf.
Y Lleian.
Y Benloyn lygliw.
Penloyn y cyrs.
Y Benloyn gynffonhir.
Y Barfog.

## XXVI.

S W A L L O W.

1. Chimney,
2. Martin,
3. Sand,
4. Swift,

Gwennol, Gwenfol.
Marthin Penbwl.
Gennol y E ${ }^{\text {lennydd. }}$
Marthin dû.

## XXVII.

$G \quad O \quad A \quad T \quad S \quad U \quad C \quad K \quad R$.<br>s. Nocturnal,<br>Aderyn y droell, Rhodwr.

## XXVIII.

## H E R O N.

1. Common,
2. Bittern,
3. White,

Cryr glâs.
Aderyn y bwnn. Bwmp y Gors.
Cryr gwyn.
XXIX.

## C $\quad \mathrm{U} \quad \mathrm{R} \quad \mathrm{L} \quad \mathrm{E}$ W.

I. Curlew,
2. Whimbrel,

Gylfinhir.
Coeg ylfinhir.

## XXX.

## $S \quad N \quad I \quad E$.

1. Woodcock,
2. Godwit,
*.3. Cinereous,
3. Red,
4. Leffer,
5. Greenfhank,
6. Redhank,
. 8. Cambridge,
7. Spotted,

Cyffylog.
Rhoftog.
Rhoftog llwyd.
Rhoftog rhûdd.
Cwityn dû.
Coefwerdd.
Coefgoch.

10. Common,<br>* II. Great,<br>12. Jack,

Yfnittan, y Fyniar.
Yfnid.
Giach.

## XXXI.

## S A N D P I P E R.

1. Lapwing,
2. Grey,
3. Ruff,
4. Knot,
5. Afh colored,
6. Brown,
7. Spotted,
8. Black,

* 9. Gambet,

1. Turnftone,

* ir. Hebridal,

12. Green,
13. Red,

* 14. Aberdeen,

15. Common,
16. Dunlin,
17. Purre,

* 18. Little,

Cornchwigl.
Cwttyn llwyd.
Yr Ymladdgar.
Y Cnut.
Y Pibydd glâs.
Y Pibydd rhudd.
Y Pibydd mannog.
Y Pibydd dû mannog.
Huttañ y môr.
Y Pibydd gwyrdd.
Y Pibydd coch.
Pibydd y traeth.
Pibydd rhuddgoch.
Llygad yr ych.
Y Pibydd lleiàf:
XXXII.

## P L O V E R.

1. Golden

Cwttyn yr aur.
2. Long

## A P P E N D I X.

| 2. Long legged, | Cwttyn hîrgoes, |
| :--- | :--- |
| 3. Dottrel, | Huttan. |
| 4. Ringed, | Môr Hedydd. |
| 5. Sanderling, | Llwyd y tywod. |

XXXIII.

## O Y S TER CATCHER.

n. Pied,

Piogen y môr.

$$
\begin{gathered}
\text { XXXIV. } \\
\text { R A I I. }
\end{gathered}
$$

i. Water,

Cwtiar.

## G A L L I N U L.

r. Spotted,
2. Crake.
3. Common,

Dwfriar fannog.
Rhegen yr yd.
Dwfriar.

## XXXVI.

P H A L A R O P E.
I. Grey,

Pibydd llwyd llydandroed.

$$
\mathrm{Cc}_{3} \quad 2 . \mathrm{Red}
$$

2. Red,
3. Common,
4. Great,
$G \quad R \quad E \quad B \quad E$.
5. Tippet, Gwyach. Tindroed.
6. Great crefted,
7. Eared,
8. Dufky,
9. Little,
10. Blackchin,

Pibydd côch llydandroed.

$$
\begin{aligned}
& \text { XXXVII. } \\
& \text { C } \quad \mathrm{o} \quad \mathrm{O} \quad \text { T. }
\end{aligned}
$$

Jâr ddwfr foel.
Jâr ddwfr foel fwyaf.

## XXXVIII.

Gwyach gorniog.
Gwyach gluftiog.
Gwyach leiaf.
Harri gwlych dy bîg.
Gwyach gwddfrhûdd.
XXXIX.

A V O S E T.

1. Scooping,

Pîg mynawd.
XL.
$A \quad \mathrm{~K}$.
7. GTreat,

Carfil mawr.
2. Razor

## A P P E N D I X.

2. Razor-bill, Carfil, Gwalch y pen waig.<br>Carfil gylfinddu.<br>Pwffingen.<br>Carfil bâch.

## XLI.

## $G \quad U \quad I \quad L \quad L \quad E \quad M \quad O \quad T$.

1. Foolifh,
2. Leffer,
3. Black,

Gwilym.
Chwilog.
Gwilym dụ̂。

## XLII.

## D I V E R.

I. Northern,

* 2. Imber,

3. Speckled,
4. Red-throated,
5. Black-throated,

Trochydd mawr.
Trochydd.
Trochydd bâck.
Trochydd gwddfgoch,
Trochydd gwddfdu.

## XLIII.

G U L L.

1. Black-backed,

Gwylan gefn-ddu,
2. Skua, Gwylan frech,

$$
\mathrm{Cc}_{4} \quad \text { 3. Black }
$$

3. Black-toed,
4. Arctic,
5. Herring,
6. Wagel,
7. Winter,
8. Common,
9. Kittiwake.
10. Tarrock,
11. Black-head,
12. Brown,

Yr Wylan yfgafn.
Gwylan y Gogledd.
Gwylan benwaig.
Gwylan rûdd a gwyn.
Gwylan y gweunydd.
Gwylan lwyd, Huccan.

Gwylạn gernyw.
Yr wylan benddu.
Yr wylan fechan.

## XLIV。

T E R N.
I. Great,
2. Leffer,
3. Black,

Y fôr-wennol fwyaf. Yfcraean.
Y fôr-wennol leiaf. Yfcraean ddû.
XLV.

## P E T R E L.

1. Fulmar,
2. Shear-water,
3. Stormy,

Gwylan y graig. Pwfingen Fanaw. Cas gan Longwr.
XLVI.

## $M E R G$ A $N \quad S \quad E$.

1. Goofander,
2. Red-breafted,
3. Smew,
4. Red-headed,

Hwyad ddanheddog.
Trochydd danheddog.
Lleian wen.
Lleian ben-goch.

## XLVII.

## D U C K.

1. Wild Swan,
2. Tame Swan,
*3. Grey Lag,
3. Bean Goofe,
4. White fronted,
5. Bernacle,
6. Brent,
7. Eider,

9: Velvet,
10. Scoter,

1I. Tufted,
12. Scaup,
13. Golden eye,

* I4. Morillon,

15. Shieldrake,

Alarch gwyllt.
Alarch.
Gwydd.
Elcyfen.
Gwydd wyllt.
Gwyran.
Gwyran fanyw.
Hwyad fwythblu:
Hwyad felfedog.
$X$ fôr-Hwyad ddû.
Hwyad goppog.
Llygad arian.
Llygad aur.
Hwyad benllwyd.
Hwyad yr eithin, Hwyad fruith. 16. Mallard,

| 16. Mallard, | Cors Hwyad, Garan <br> Hwyad, Hydnwy. |
| :--- | :--- |
| 17. Shoveler, | Hwyad lydanbig. <br> 18. Red breafted Shoveler, <br> Hwyad fron-goch ly- <br> danbig, |
| 19. Pintail, |  |
| 20. Long tailed, | Hwyad gynffonfain. <br> Hwyad gynfon gwen- <br> nol. |
| 21. Pochard, | Hwyad bengoch. |
| 22. Ferruginous, | Hwyad frech: |
| 23. Wigeon, | Chwiw. |
| 24. Bimaculated, | Y gors Hwyad Iwyd. |
| 25. Gadwall, | Hwyad addfain. |
| 26. Garganey, | Cor Hwyad, Crach |
| 27. Teal, | Hwyad. |

## XLVIII.

## C $\quad \mathrm{O} \quad \mathrm{R} \quad \mathrm{V} \quad \mathrm{O} \quad \mathrm{R} \quad \mathrm{A} \quad \mathrm{N} \quad \mathrm{T}$.

1, Corvorant, Mûlfran, Môrfraṇ.
2. Shag,
3. Gannet,

Y Fulfran leiaf.
Gan, Gans.
$\begin{array}{llllllll}A & P & P & E & N & D & I & X .\end{array}$

* i. Rough legged Falcon,

2. Roller, Y Rholydd,
3. Nutcracker ${ }_{2}$
A $\quad$ P $\quad P \quad E \quad N \quad D \quad I \quad X$. ..... 749
4. Nutcracker, Aderyn y cnau.* 4. Oriole,Y Fwyalchen felan.
5. Rofe colored Ouzel, Y Fwyalchen gôch..
6. Crane,
7. Egret,
8. Little Bittern,
*9. Spoon-bill,

Garan.
Cryr coppog lleiaf. Aderyn y bwnn lleiaf. Y Llydan-big.
** The birds marked * are not in the octavo edition, 1768 .

## A P P E N D I X.

## No. IX.

## CATALOGUE of the EUROPEAN QUADRUPEDS, BIRDS, AND REPTILES, Extra-Britannic.

SINCE the great ufe of Mr. Ray's Sylloge firpium Europlearum extra Britannias* has been fo fully approved by the travelling Botanift, it is thought a fimilar enumeration of the fpecies of certain claffes of the animal kingdom would be equally agreeable and ferviceable to the travelling Zoologift. It comprehends the Extra-Britannic quadrupeds, birds, and reptiles of Europe, formed from the works of the general naturalifts, from the Fauna of different countries, and from my own obfervations. The arrangement of the fubjects are according to the excellent method of our countryman Mr. Ray, a little altered, or reformed. As there are not at this inftant Englijh names for moft of the articles, we have been obliged to fubftitute thofe ufed by Linnous and other foreign writers; but to gratify the Englifb reader's curiofity, who may wifh for fuller accounts of the quadrupeds in his own language, we refer him in the fecond column to our own fynopfis of Quadrupeds; and in refpect to the birds, to the Englifb edition of Mr. Willughby's Ornithology.

[^45]
## CLASS I. QUADRUPEDIA.

## QUADRUPEDS.

|  |  | Lin. | Syn.noft. Place. No. |
| :---: | :---: | :---: | :---: |
| 1 Bcs | Urus | 99 | 4 Lithuania |
|  | Bubalis | ibid. | 5 Italy |
| II Owis | Strepficeros | 98 | 8 B. Hungary |
|  | Laticauda |  | Calmuck country |
| III Capra | Rupicapra | 95 | 10 Alps, Pyrenees |
|  | Ibex | ibid. | 9 Alps |
|  | Ammon | 97 | If Corfica, Sardinia |
|  | Tartarica | ibid. | 30 Ukraine |
| IV Cervus | Alces | 92 | 35 N. of the Baltic |
| Sul 1 | Tarandus | 93 | 36 ibid. |
| V sus | Aper Sylvefris | 102 | 54 Germany, France, |
|  | 1. |  |  |
| VI Canis | Lupus | 58 | is Almoft all the con- |
|  |  |  | tinent |
|  | Lagopus | 59 | $1{ }_{3}{ }^{\text {Lapland }}$ |
| VII Felis | Lynx | 62 | 135 Many parts of Eu- |
|  |  |  | rope |
| 100 |  |  | VIII |



## CLASS II. A V E S.

## B I R D S.

I. $A \quad C \quad C \quad I \quad P \quad I \quad T \quad R \quad E \quad S$. R A P A C I O U S.

| I Vultur | Vultur <br> Percnopterus | Wil. orn. Place. <br> Brif.I. 45366 Alps,Italy |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Raii 今yn. 10 | $67 \begin{gathered} \text { Spain, Mi- } \\ \text { norca } \end{gathered}$ |
| II Falco | Leucocephalus | Lin. 124 | North $\dagger$ |
|  | MeIanæetos | ibid. | 61 |
|  | Morphno congener | Raii Jyn. 7 | 63 |
|  | Rufticolus | Lin. 125 | Sweden |
|  | St. Martini | Brif. I. 443 | France |
|  | Iflandicus | Brunnicb No. | Iceland |
|  | Vefpertinus | Lin. 129 | Ingria |
|  | Minutus | 131 | Malta |
|  | Subfurcatus | $\int 326$ No. 5 |  |
|  | Caftaneus | \% $327-6$ | Auftriz |
|  | Ferrugineus | 迷 $328-7$ |  |
|  | Cinereus | [329-12 |  |
| III Strix * | Scandiaca | Lin. $\quad 132$ | North |
|  | Subaurita | Kr. 323 No. 3 | Auftria |
|  | + Countries the other fide the Baltico |  |  |
| . |  |  | * Nyctea |



## II. $\mathrm{P} \quad \mathrm{I}$ 历.

$$
P \quad I \quad \mathrm{~S} \text {. }
$$


$\ddagger$ Thofe with this word refer to all the continent, except the extreme north, Laplakd, \&c.

III. GAL.

III. G A L L I N 压。
GALLINACEOUS.



$\mathrm{Ddd}_{2}$ V.AQUA.

## V. AQUATIC FISSIPEDES.

> CLOVEN FOOTED WATER FOWL.

A P P E N DIX. ..... 759Wil. orn. Place.


## VI. PEDIBUS PINNATIS。

WITHFINNED FEET.
XXXXI Pbalaropus Platyrhynchus BrunnichNo. 172 North
Ddd. 3 ..... VII.

VII. PEDIBUS PALMATIS.

> WITH WEBBED FEET.


## CLASS III. REPTILIA.

## $R \quad E \quad P \quad T \quad I \quad L \quad E \quad S$.

* P E D A T A:

With Feet.

** $\mathrm{A} \quad \mathrm{P} \quad \mathrm{O} \quad \mathrm{D} \quad \mathrm{I} \quad \mathrm{A}$.
Without Feet.
Serpentes Anguis 谷culapii, Plinii lib. xxix. c. 4. Raiifyn.qua. 291 Italy
Coluber Cherfea Lin. 377 Wulf. Boruff. 10 Sweden Afpis
Jaculus
Lin. 378 Strom. Sondm. 193 Fr. Norway
Wulff. Boruf. 13
Pruffia
D d d 4
INDEX.

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\begin{aligned}
& +1+1+2+110-2+1+ \\
& +1
\end{aligned}
$$

## ADDITIONS and CORRECTIONS

To

## BRITISH ZOOLOGY.

[To be inferted immediately before the Index of Birds.]

## V O L. I. Page 280.

## OF COCK-FIGHTING.

SOME account of the barbarous cuftom of Cock-fighting, fo frequent, till of late years, a favorite amufement among fome of all ranks in this kingdom, will be no improper appendage to the hiftory of our domeftic birds.

If it can be any apology for fo cruel a diverfion, we may plead that it was in ufe among the mof polite people of antiquity : firf invented, in all probability, by the Atbenians, and borrowed from them by other nations, in particular by the Romans, who introduced it into our inlands.

At Atbens was an annual feaft, attended with Cock-fighting, inftituted by Themiftocles in honor of the birds from whofe fighting he received an omen of his fuccefs againft the Perfians. He obferved, that thefe birds fought for mere glory; neither for the gods of their country, nor tombs

## OF COCK-FIGHTING.

of their anceftors, nor yet for their children : * fetting before his foldiers every motive to excite their valor, which they had fuperior to thefe birds. This feftival was ftiled $A \lambda \varepsilon \kappa r \rho \sigma \omega \nu ~ a \gamma \omega \nu$; and became anniverfary.

The Cock-pit, or $\Upsilon_{n \lambda i \alpha,}$ was in the theatre where the public games were exhibited, and was in form of a fquare frage, not round, like the modern pits. The game of Cock-fighting lafted but one day; for originally it was confidered partly as a religious and partly as a political infitution. 1 But the cuftom was foon abufed, and Cockmatches grew frequent among private people. The barber Meidias and Collias fought a main: thefe gentlemen were, in all probability, alfo celebrated Cock-feeders, or at left Quail-feeders, being called Ogruyrgopor; for it is certain that the antients prepared their bieds for battle: great fums were layed on the event; and the Lanifte, or Cockers, frequently totally ruined by their purfuits of the diverfion $\dagger$.

The cuftom furead foon, as is fufpeeted, from Atbens to Pergunius and Troas. In the firt were annual Cock-matches: and their neighbours, the Dardenii Troas, feem equally addiEted to the diverfion, as is evident from their coins, which had on them two fighting cocks.

On two antient gems, in the collection of Mr.

[^46]
## OFCOCK-FIGHTING.

William Hamilton $\S$, are frong memorials of this cuftom: on one is a Cock, with his head creft, carrying in his bill a palm-branch, in token of victory over another, which ftanding before with a drooping head. On the other, are two in the action of fighting, and a moufe above, running away with an ear of corn, the caufe of the battle: from both thefe reprefentations, it is evident that the antients neither trimmed their Cocks, nor cut off their combs and wattles.

The race of birds moft efteemed by the antients, was that of Tanagra, a city of Bcootia, the Ine of Rbodes, Chalcis in Euboea, and the country of Media*. They preferred the larger kind, or what we call Sbakebags. The hens of Alexandria in Egypt, called Movógogor, were highly valued for breeding firited chickens $\dagger$.

From Greece the diverfion was carried to Rome: but did not arrive at the heighth of folly as it did at Atbens. The Romans delighting more in quail fightings, as the Cbinefe do at this time. But we are told, that the fraternal hatred between Baffianus and Geta, fons of the emperor Severus, began when they were boys, from a quarrel they had about their Quails and Cocks $\ddagger$

The Britons had poultry before the arrival of Cajar, but they owe the barbarows cuftom of

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§ Archaologia, vol. iii. tab. ix.
* Plin. Nat. Hijf. Hib, x. c. zit
\(\dagger\) Geoponic. lib. xiv. c. 7.
\(\ddagger\) Heradians iii. 33 .
```


## OF COCK-FIGHTING.

Cocking to the Romens. Yet it does not occur among our writers, till the time of Henry II. when Fitz-Stepbers § mentions it as the fchool-boys diverfion on Carnelevaria, or Sbrove-Tuefday. Ed suard III. difapproved and prohibited Cock-fighting II. But that barbarous prince Henry VIII. gave it fo much encouragement as to build a theatre, near Whiteball, for that purpofe, to this day known by the name of the Cockpit. At length Oliver Cromwell, in 1654, by a humane edict, fuppreffed thefe difgraceful meetings; which, after his time, revived with full fury: yet it is fome confolation, in this profigate age, that whatfoever other follies flourifh, this lofes credit, and drops (excepting among the dregs of the people) into the utmoft difrepute ${ }^{*}$.
§p. ts. li Maitland Lendon, i. is r.

* It will be injuftice not to fay, that almoft the whole of this is borrowed from the memoir on this fubject, by that able antiquary the Rev. Mr. Pegge. See Archaclogia, vol. iii. $1_{3}$ z.


## STOCK DOVE, or WOOD PIGEON.

V O L. I. Page 290.
Of the STOCK DOVE, or WOOD PIGEON.
Eras five vinago. Will. Orr. 185.

THIS bird has been confounded with the Wild Pigeon, and the Rock Pigeon, and made the origin of the domeftic kind. I firft had an opportunity of correcting my error, * by feeing the true Stock Dove in the Leverian MuSeum, which fatisfied me that Mr. Willugbby, with great juftice, defcribed it as a diftinct fpecies.

It is equal in five to the common kind, perhaps

Sızモ。 larger. The weight of a male is fourteen ounces: its extent of wing, twenty-fix inches : its length, fourteen.

The bill is of a light red : the head, neck, and upper part of the back, of a dark grey; the lower part, and rump, changes into an elegant light grey : the primary feathers of the wings, are dunks: coverts and fecondaries, deep grey, marked with two black foots on the exterior webs: the lower half of the exterior webs of the two outermoft feathess of the tail, are white : the reft, cinereous, with their ends black.
$\mathrm{T}_{\mathrm{Hz}}$ fides of the neck, of a variable gloffy green : the breaft, of pale purplifh or vinaceous color: the belly cinereous: legs red.

Breeds in hollow flocks of trees, and fometimes on the tops: from which it derives its name of

- By Linnets also, who makes it fynonymous with the Tame Pigeon.


## STOCK DOVE, or WOOD PIGEON.

Stock Dove, or Wood Pigeon: in oppofition to the other, which breeds in holes of rocks, fteeples, and towers. Thofe are refident in this kingdom: the former generally migratory: a few breed in the woods in Suffex," and perhaps other fouthern parts of Great Britain. Their eggs have been hatched under tame Pigeons; but the young, as foon as they could fly, have betook themfelves to their favage ftate. Thefe perch on trees : the true Wild or Rock Pigeon rarely or never. It has alio marks different: in particular the lower part of the back, and the rump, are never of any other color than white. Yet, as Pigeons are frequently feen among our tame flocks, with grey back and rumps, it is highly probable, that notwithftanding the above experiment may fometimes fail, yet both kinds may have contributed to flock our pigeon-houfes.

Geintlemen who have pigeon-houfes near fome of the lofty cliffs which impend over the fea, feldom preferve the pigeons in them the whole year : tempted by food, they will vifit and continue fometime in the houre, but ufually fly to the rocks to breed.

The Stock Doves migrate into the fouth of England, in great multitudes, in Ncerember; and while the beech woods were fuffered to cover large tracts of ground, came in myriaus, reaching in ftrings of a mile in length, when they went in

[^47]the morning to feed. They retire in the fpring : I fuppofe into Sweden; for Mr. Ekmark makes their retreat from that kingdom coincide with the time of their appearance here.

## VOL. I. Page 385

GREY WHEAT-EAR.
Cul blanc gris, Brifon iii. 552. tab. zxi.

ABird of this fpecies was thot near Uwbridge. The crown and back were of a tawny brown; the under fide of the neck, of a-dull brownifh yellow : from bill to eye paffed an obfcure duiky line. Quil feathers and fecondaries black, edged with tawny and white: tail, like the common Wheat-Ear; but the edges were marked with pale tawny.

In the Linnean Syfem, p. 332. it is made a variety of the common Wheat-Ear.

## VO L. II. Page 574.

TRANSFER to the Grey-lac Goose, p. 570, all the fynonyms prefixed, by miftake, to the Bean Goose.

## SULA. GREEN COD.

## V OL. II. Page 620.

THIS variety of the Gannet was fent to me in Auguft 1779, by Hugh Stodart, efq; of Treganwy, in Caernarvon/bire. I do not recollect that it has been obferved in Europe fince the days of Dr. Hoier, a phyfician at Bergen, who procured it from the Ferroe Illes, and fent it to his friend Clufus. It has fince been feen frequently in Falkland Ifland, and in the South Seas, efpecially on the coafts of New Holland and Nerv Zealand. Seamen call it the Port Egmont Hen.

This bird differs from the common Gannet only in thofe particulars: in having fome of the fecondaries feathers black; and the middle feathers of the tail of the fame color: whereas both, in the common fort, are entirely white.

## V OL. III. Page I79. GENUS COD.

 Gadus virens, Lin. Syf. 438. Fakn. Suec. No 309.Grieni THE Green Cod-Fifh is beardlefs; finooth, of dufky green on the back; and filvery in every other part: jaws, of equal lengths: fide line, ftrait : tail forked.

I was favored by Sir Gobn Cullum, bart. with the notice of this fpecies being Briti/h; he obferved numbers of them which had been taken in the German ocean; none exceeded feven inches in length. Linnefus does not attribute to them a greater fize than that of 2 Perch.

## I <br> N <br> D <br> E <br> X.

A.

B.

## B.




Butcher-bird, vide Shrike. ——— lef, wide bearded Titmouse.

C.
Cagmag, what
Canary bird,
Capercalze, ride cock of the wood.
Carrier-pigeon, its ufes,
Cat, domettic,
its value formerly,
odd penalty for ftealing the Prince's,
wild,
Cataracta or Skua,
a name applied to the gannet,
Cattle, wild fill in Britain, $\quad$ Page
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Q.


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3250

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THE EN D.

- .



[^0]:    * In after times this proverb was abfurdly corrupted to, He does not know a bawk from a band-faw.

[^1]:    * Keyler's Travele, I. 70.

[^2]:    * Lib. x. c. 42 .

[^3]:    * Kramer Elens万. anim. Auftric, 348.

[^4]:    * Leland's collecianea, Vol. 6. L'Aigrette. Brifos av. V. 431 .

[^5]:    * They vifit a place called Martin-Mere in Lancaßire, the latter end of March or beginning of April, but do not continue there above three weeks.

[^6]:    * Camden Brit. 971.
    + Dugdale on embanking, 185.

[^7]:    *Belon Oyfeaux. 260.

[^8]:    * Or little wing。

[^9]:    * Off the ceaft of Anglefer.

[^10]:    * The fpotted Greenland Dove of Mr. Edruards, plate 508

[^11]:    * Hoier in Clun, exot. 369, Brumich, $35 \cdot$

[^12]:    * Belon av. 163.

[^13]:    * Anferini generis funt Cbenalopeces: et quibus lautiores epulas non novit Britannis Cbenerctor, fere anfere minores. Lib. x. c. z2.

[^14]:    - July 2.5 th. 1769.

[^15]:    * When this happens, we have recourfe to Mr. Willugbby for the weight and meafurements, whenever he hath noted them.

[^16]:    * The faller red headed Duck, Wail. orn. 36g. Rail Syn. ع⿰氵. 143.

[^17]:    * Plinii, Lib. X. c. zz.

[^18]:    - i.e. Broad bill.

[^19]:    * This information we owe to that worthy prelate, the late Dr. Pocock, Bifhop of Meath; who had vifited the Skeligs. Mr. Smith, in his hiftories of Cork and Kerry, confounds this bird with the Gull defcribed by Mr. Willugbby; from whom he has evidently borrowed the whole defcription.

[^20]:    * Page 1045.

    Sf 4
    its

[^21]:    * Pliniz, lib. x. c. 44.

[^22]:    * Hij? Danub. V. p.8.

[^23]:    * Beton av. 195.

[^24]:    * For an account of its fpeed, vide Adanfon's voy. 85.
    $\uparrow$ Tavernier's Travels, I. 63.
    1 Nemefion Cyneg. 267.

[^25]:    * Tbeje are the Names of the two Breeds of Arab Horjes, wbich are reckoned pure and true, and thoofe swbich are of botb tbeje Breeds by Fatber and Motbcr, are the moft noble and fres from Bafardy.
    + A Proverbial Expreficr.

[^26]:    *Wall on horfes, 74 .

[^27]:    * D'Arvieux, 173.
    + Sbarw's Travels, 238.
    $\ddagger$ Cyneg. lib. I. V. 284.
    § Fob. ch. XXXIX. v. 19. to 25.

[^28]:    * It may be alfo obferved, that the moment they fee a hawk, they communicate the alarm to each other by a plaintive note; nor will they then jerk or call though the wild birds are nears

[^29]:    * A bird, acquainted with the nets, is by the bird-catchers sermed a Barper, which they endeavour to drive away, as they can have no fport whilf it continues near them.

[^30]:    *. Lib. x, c. 29.

[^31]:    * For want of terms to diftinguifh the notes of birds, BelLon applies the verb chantent, or fing, to the goofe and crane, as well as the nightingale. "Plufieurs oifeaux abantent la nuit, comme eft l'oye, la grue, \& le roffignol." Bellon's Hift. of Birds, p. 50 .

[^32]:    * The common hen, when fhe lays, repeats the fame note very often, and concludes with the fixth above, which the holds for a longer time.

[^33]:    * The white reaches almoft to the fhaft of the quill feathers, and in the hen does not exceed more than half of that rpase: it is alfo of a brighter hue.

    $$
    X \times 4
    $$

[^34]:    * For the fame reafon, moft large birds are wilder than the fmaller ones.

[^35]:    * Mr. Zeidler, who plays the violincello at Covent Garden theatre.

[^36]:    * Brit. Zool. p. 262.

[^37]:    * Turdus Americanus minor canorus. Ray's Syn. It is called by the Indians, Contlatolli; which is faid to fignify four hundred tongues. Seo alfo Cate/fy.

[^38]:    * The nightingale, indeed, is perhaps an exception to this general obfervation.

[^39]:    A a a 2
    berries;

[^40]:    * Printed for $W$. Sandby, Fleet-Street, London, 17,67. Price One Shilling and Six-pence.

[^41]:    * Faun. Suec. No. 150. Graztz Greenl. I. 82. 83.

[^42]:    * Smitb's bif. Kerry, 186,

[^43]:    Voe. II.

[^44]:    * Caii opufc. 113.

[^45]:    * Stirpium Europearum extra Britannias nafcentium Sylloge, 1694.

[^46]:    * Elian. Var. Hij. ii. c. 20.
    + Columella, lib. viii. c. $=$.

[^47]:    * Mr. Latham Rivett.

