

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Numbers 1030 to 1073

## TEMPERATURE RECORD.

Instrument used, \_\_\_\_\_

Current number of observation, \_\_\_\_\_

Date, \_\_\_\_\_

Locality, \_\_\_\_\_

Bearings, \_\_\_\_\_

Time of day, \_\_\_\_\_ ; of tide, \_\_\_\_\_

State of sky, \_\_\_\_\_

Temperature of air, \_\_\_\_\_

“ surface of water, \_\_\_\_\_

“ at depth of \_\_\_\_\_ fathoms, \_\_\_\_\_

“ of bottom, \_\_\_\_\_

Depth, in fathoms, \_\_\_\_\_

Nature of bottom, \_\_\_\_\_

Direction of surface current, \_\_\_\_\_

Force of surface current, \_\_\_\_\_

Direction of bottom current, \_\_\_\_\_

Force of bottom current, \_\_\_\_\_

Name of vessel, \_\_\_\_\_

To what service attached, \_\_\_\_\_

Name and rank of commanding officer, \_\_\_\_\_

Name and position of observer, \_\_\_\_\_

1030

## REMARKS.

Depth	Spec Grav	Temp	
Surface	1.0249	66	1.02574
5 fms	1.0249	66.5	1.02581
10 "	1.0249	65.5	1.02556

Trawling

Time

	down	up
0	1.52.45	38.40
100	1.56.10	35.25
200	1.59.55	32.15
300	2.03.15	29.05
400	2.10.20	25.45
500	19.50	22.05
530	2.17.10	2 20.40

# TEMPERATURE RECORD.

~~Albatross~~ *Rake Dredge*  
Instrument used.

Current number of observation, *1030*

Date, *Sept 14, 1881*

Locality,

Bearings, *Lat 39.58.30 N.*  
*Long 69.15 W*

Time of day, *1.52* ; of tide,

State of sky, *Foggy*

Temperature of air, *65*

" surface of water, *66*

" at depth of *5* fathoms, *66 - 10 fms 63*

" of bottom, *41* 20 - 48

Depth, in fathoms, *325 337* 30 - 45  
50 - 49

Nature of bottom, *Yellow mud* 100 - 46

Direction of surface current,  
*Wind - ENE.*

Force of surface current,  
*Wind 4*

Direction of bottom current,  
*Drift - N by W 1/2 W*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1031

## REMARKS.

Depth	Spec Grav.	Temp.	
Surface	1.0247	65	1.025398
5 fms	1.0248	63.5	1.02528
10 "	1.0248	63	1.02521

	Dredging		Trawling	
	Time	up	Time	up
0	45.25	254	2.54.45	34.35
100	46.25	252.05	2.58.30	39.20
200	47.30	250.15	3.00.15	3.35.25
240	48.05	2549.50	—	—
300			3.02.25	3.31.15
400			3.05.50	3.27.45
500			3.08.30	
520			3.09.05	3.22.05

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1031*

Date, *Sept. 14. 81*

Locality,

Bearings, *Lat- 39.57 7L*  
*Long 69.19 7R*

Time of day, *2.54* ; of tide,

State of sky, *Foggy*

Temperature of air, *64*

" surface of water, *65*

" at depth of *5* fathoms, *63.5* *10 fms 58*

" of bottom, *46* *20 " 47*  
*30 " 45*  
*50 " 46*

Depth, in fathoms, *25-5*

Nature of bottom, *yellow mud*

Direction of surface current,  
*Wind - N N. E.*

Force of surface current,  
*Wind - 4*

Direction of bottom current,  
*Drift N 7R & N - 1 1/2*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1032

## REMARKS.

Depth	Spec to cor.	Temp	
Surface	1.0247	65	1.02539
5 fms	1.0247	63.5	1.02528
10 "	1.0248	63	1.02521

## Trawl

		Down	up
0		4.00.00	
100		06.30	
200		10.45	
300		14.10	
400		18.15	

# TEMPERATURE RECORD.

Instrument used, *Small Trawl*

Current number of observation, *1032*

Date, *Sept. 14, 91*

Locality,

Bearings, *Lat - 39.56 N*  
*Long 69.22 W*

Time of day, *4.00*, of tide,

State of sky, *Cloudy*

Temperature of air, *65*

" surface of water, *65*

" at depth of *5* fathoms, *63.5*, *10 fms 58*

" of bottom, *46* *20 - 47*

Depth, in fathoms, ~~*500*~~ *208* *30 - 55*  
*50 - 46*

Nature of bottom, *Yellow Mud*

Direction of surface current, *Wind NNE*

Force of surface current, *Wind 5*

Direction of bottom current,

Force of bottom current, *Drift N.W. 1/4*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,



## REMARKS.

1033.

		Trawl Time	
		Down	up
0		5.05	
100			
200			
300			
382		5.25	
404		5.26.45	5.35.45

- Reymolds gunthera Thermometer  
no. 46405. Cracked shield  
& used for surface tem-  
peratures.

No 46402, substituted  
for bottom & intermediate  
temperatures.

# TEMPERATURE RECORD.

Instrument used,

*Trawl*

Current number of observation,

*1033*

Date,

*Sept 14, 1881*

Locality,

Bearings,

*Lat 39.56 N*

*Long 69.24 W*

Time of day,

*4.55 ~~PM~~*

State of sky,

*b. c.*

Temperature of air,

*66°*

" surface of water,

*63° N. S. # 46405*

" at depth of *5* fathoms,

*63- 10 5 7°*

" of bottom,

*20/47*

Depth, in fathoms,

*153 175/29 30/47*

Nature of bottom,

*S. G.*

Direction of ~~surface~~ <sup>*surface*</sup> current,

*N. E.*

Force of ~~surface~~ <sup>*dr*</sup> current,

*3.*

Direction of ~~bottom~~ <sup>*drift*</sup> current,

*WNW.*

Force of ~~bottom~~ <sup>*dr*</sup> current,

*2 m.*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1034  
REMARKS.

Sund		Tues	
Time	Temp	Time	Temp
0	5.15.30	6.05.00	6.07.45
150	5.56.50	6.03.28	6.14.00
5140	15.2.35	6.03.10	
7.00		6.17.25	6.33.20
3.00		6.20.00	6.28.15

# TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1034

Date,

Sept, 14, 81

Locality,

Bearings,

Lat 39.56 N  
Long 69.26 W

Time of day,

5.55; of tide,

State of sky,

b.c.

Temperature of air,

66

" surface of water, 62.

" at depth of 5 fathoms,

2.9.46402.

60

10 fms 57

" of bottom, 46.5

20 - 47

30 - 47

Depth, in fathoms,

~~140~~ 146

50 - 49

Nature of bottom,

Sand & yellow mud

Direction of surface-current,

Wind N.E.

Force of surface current,

Wind 3

Direction of bottom current,

Drift - N N W 1/2 mile

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1035

REMARKS.

No specific gravities  
taken

## Trawling Soundings

Depth	Time			
	Down	Up		
0	6.56.15	7.38.15		
100				
200				
300				
340	7.10.00	7.26		

# TEMPERATURE RECORD.

Instrument used,

Iron Trawl

Current number of observation,

1035

Date,

Sept. 14. 81

Locality,

Bearings,

Lat 39.57 N

Long 69.28 W

Time of day,

6.56 ; of tide,

State of sky,

b. c.

Temperature of air,

65

" surface of water, 62

" at depth of 5 fathoms, 60<sup>0</sup>

" of bottom, 47

10 fms 57

20 - 49

30 - 47

50 - 49

Depth, in fathoms,

~~116~~ 120

Nature of bottom,

Sand

Direction of ~~surface current~~,

wind

N. E.

Force of ~~surface current~~,

"

"

Direction of bottom current,

Force of bottom current,

Drift

North 3/4 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Wedge

	Down	up
100 -	7.54.30	8 31.30
100 -		
200		
300 -	8. 11. 15	8. 21. 35

↘ ↗

# TEMPERATURE RECORD.

Instrument used, *Rake Bridge*  
 Current number of observation, *1036*  
 Date, *Sept 14, 81*  
 Locality,  
 Bearings, *Lat 39, 58 N.*  
                   *Long 69, 30 W*  
 Time of day, *7.54 P.M.*; of tide,  
 State of sky, *b. c.*  
 Temperature of air, *62.*  
                   " surface of water, *61.5*  
                   " at depth of — fathoms,  
                   " of bottom, *S*  
 Depth, in fathoms, *90 94*  
 Nature of bottom, *Sand*  
 Direction of surface current, *Wind N.E.*  
 Force of surface current, *Wind 4*  
 Direction of bottom current, *Wind N.N.W. 1/2 N.*  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,



# 1037  
REMARKS.

# 10373 left 15<sup>th</sup> 7:20 am  
16 ft. L. Trussel - spec. Head  
bearing N. E. 3/4 N. 4.

# 1038

No specific quantities to record

Sound  
Time

Feet	down	up
0	7:08	7:40
100		
200		
300		
325	7:23	7:57
length of line out 325 feet		

~~1057~~  
TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1038

Date,

Sept 21<sup>st</sup> 1881

Locality,

Bearings, Lat. 39° 56' N Long 70° 06' W.

Time of day, 6.55 ; of tide,

State of sky,

Hazy -

Temperature of air,

67°

" surface of water,

67°

" at depth of 5 fathoms,

68° - 10 fms 69°

" of bottom,

47° - 20° 49°

Depth, in fathoms,

146. f.

Nature of bottom,

Sand & shells

Direction of surface current,

Wind N N E

Force of surface current,

Wind 4

Direction of bottom current,

Drift N + E 1 mile

Force of bottom current,

Name of vessel,

Fish Hawk

To what service attached,

Fish Commission

Name and rank of commanding officer,

W. J. S. Searles

Name and position of observer,

- 103 -

REMARKS.

No. 3. G. Barker

Trawl Soundings

Depth -	Time	etc
0	9.45	
100		
200		
295	10.02	10.35

length of line out 295 fathoms

1039

# TEMPERATURE RECORD.

Instrument used, Trawl  
Current number of observation, 1359  
Date, Sept 21 1887  
Locality, Lat 39.5-52.  
Bearings, Long 70-00 W.  
Time of day, 9.25 ; of tide,  
State of sky, Hazy  
Temperature of air, 66.50.  
" surface of water, 67  
" at depth of 5 fathoms, 68-10 fms.  
" of bottom, 50  
Depth, in fathoms, 130 136.  
Nature of bottom, Sound and shells  
Direction of surface current, Wind N.E.  
Force of surface current, Wind 6  
Direction of bottom current, Drift N+E. 2 miles  
Force of bottom current,  
Name of vessel, Fish Hawk  
To what service attached, Fish Commission  
Name and rank of commanding officer, Lieutenant  
George L. Johnson  
Name and position of observer,

10 ~~470~~:

REMARKS.

No. 1000

Excursion depth  
ground sounding

depth	time	up
- 55 -	10.47 -	11.15
100		
200		
300		
340	11.08 -	11.26

length of line out 340 fms -

1640

# TEMPERATURE RECORD.

Instrument used, *Reelexion Bradys*

Current number of observation, *1040*

Date, *Sept 21 1881*

Locality, *Lat. 40.00.2.*

Bearings, *Long. 70.06.20.*

Time of day, *10.43* ; of tide.

State of sky, *Hazy*

Temperature of air, *64°*

" surface of water, *58°*

" at depth of ~~5~~ fathoms,

" of bottom, *66°*

Depth, in fathoms, ~~73~~ *93.*

Nature of bottom, *Sand and shells*

Direction of surface current, *Wind N. N. E.*

Force of surface current, *Wind 6*

Direction of bottom current, *Drift N + E 2 miles*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *F. C. M.*

Name and rank of commanding officer, *Lieut. Comdr*

*John S. Thompson*

Name and position of observer,

1026  
REMARKS.

Depth	Time down	up
0000	12.33	12.49
	12.42	12.54

line reports not  
attached.

1046

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1046*

Date, *Sept 22 1881*

Locality, *Ten Pound*

Bearings, *West Chop St. E 1/4 h. 1 3/4*

Time of day, *12.33* ; of tide.

State of sky, *b. c.*

Temperature of air, *63-30*

" surface of water, *65*

" at depth of *5* fathoms, *65*

" of bottom, *65*

Depth, in fathoms, *9*

Nature of bottom, *Gravel*

Direction of surface current, *Wind S. S. W.*

Force of surface current, *Wind 4*

Direction of bottom current, *drift N. S. W. 3/4 mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*  
*Z. L. Tanner*

Name and position of observer,



1042

REMARKS.

Fath	Soundings
Depth	Time down up
00	1.17 - 1.29
36	1.24
47	1.27 1.31

length of line out - fathoms

1502

TEMPERATURE RECORD.

Instrument used, *Dredge*

Current number of observation, *1502*

Date, *Sept 22 1881*

Locality, *Vine Sound*

Bearings, *West Chop E 1/2 W. 1 1/2*

Time of day, *1.17* ; of tide,

State of sky, *b. c.*

Temperature of air, *68.80*

" surface of water, *65'*

" at depth of fathoms,

" of bottom, *65*

Depth, in fathoms, *6*

Nature of bottom, *S. Gravel*

Direction of surface current, *Wind S. S. W*

Force of surface current, *Wind 5*

Direction of bottom current, *drift N + W. 1/2 W*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieut*

*J. S. Tanner*

Name and position of observer,

10 43

## REMARKS.

Depth	Spec. Grav	Temp
Surface	1.0256	65
5 fms	1.0254	64.5
10 "	1.0252	64

## Trawl

fms	Time	Temp
0	7.17	7.47.15
100	7.25.00	7.44.05
200	7.28.50	7.41.05
360	7.28	7.38.50

# TEMPERATURE RECORD.

Instrument used. *Trawl.*  
Current number of observation, *1043*  
Date, *Oct. 10*  
Locality, *off Cape of Del. Penn.*  
Bearings, *Lat. 38. 35 N.*  
*Long 78. 11 W.*  
Time of day, *7. 17 am* of tide.  
State of sky, *partly cloudy*  
Temperature of air, *63.5*  
" surface of water, *65.5*  
" at depth of *5* fathoms, *65.5*. *10 fms. - 65.0*  
" of bottom, *49°* *20 " 62.0*  
*30 "*  
*50 "*  
Depth, in fathoms, *125 130.*  
Nature of bottom, *Sand*  
Direction of ~~surface current~~, *wind N. N. E*  
Force of ~~surface current~~, *wind 4*  
Direction of ~~bottom current~~, *drift N W x N 1 3/4*  
Force of bottom current,  
Name of vessel,  
To what service attached,  
Name and rank of commanding officer,  
Name and position of observer,

1044

## REMARKS.

Depth	Spec. Grav.	Temp.
Surf.	1.0252	65
5 fms	1.0252	65.
10 "		

## Soundings

## Trawlings

Depth		
	Time	up
0	8.31	9.18.36
100	8.35.05	9.15.50
200	39.15	9.12.00
300	43.15	9.09.45
400	47.45	9.06.20
409		9.05.45

Current up rapidly  
 Heaved water to 300 fms.

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
Current number of observation, *1044*  
Date, *Oct. 10. 81*  
Locality,  
Bearings, *Lat. 38. 37. 2.*  
*Long 73. 12. 20*  
Time of day, *5.15* *High* of tide,  
State of sky, *Very cloudy*  
Temperature of air, *65*  
" surface of water, *66*  
" at depth of *5* fathoms, *66* - *10 fms - 65°*  
*20 - 62°*  
" of bottom, *42-5.* *30 - 53°*  
*50 fms 52°*  
Depth, in fathoms, ~~*46*~~ *234.*  
Nature of bottom, *gray mud*  
Direction of ~~surface current~~, *Wind* *2* *W.*  
Force of ~~surface current~~, *Wind* *3*  
Direction of ~~bottom current~~, *Drift*, *W. N. W.*, *1/2 m.*  
Force of bottom current,  
Name of vessel,  
To what service attached,  
Name and rank of commanding officer,  
Name and position of observer,

10 45

## REMARKS.

None taken

Sounding

Trawl

Septh				
0			7.32.30	37.55
100			36.25	34.50
200			40.35	31.00
300			44.50	27.15
400			48.15	23.20
500			52.15	19.45
560			54.50	<del>19.45</del>
600			10.01.40	15.55
650			10.06.00	10.13.20

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1045*

Date, *Oct 10. 81*

Locality,

Bearings, *Sur 38. 35, 2.*  
*Long 73. 18 W.*

Time of day, *9.32* ; of tide,

State of sky, *partly cloudy*

Temperature of air, *67*

" surface of water, *66*

" at depth of *5* fathoms, *66°* - *10 fms, 65°*  
*20 " 63*  
*30 " 53*  
*100 fms 51°*

" of bottom, *40°*

Depth, in fathoms, *300 3/4.*

Nature of bottom, *Grey Mud*

Direction of ~~surface~~ current, *Wind - NW*

Force of surface current, *3*

Direction of bottom current.

Force of bottom current, *Drift N 3/4 N 3/4 mile*

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,



1046

## REMARKS.

Surface 1.0252. 65°  
 5 fms 1.0254 65  
 10 - 1.0255. 64

Lead

Trawl

Depth	Time		Time	
	Down	Up	Down	Up
0	11.08.00		11.14.00	50.30
100	09.15		11-17.10	47.30
200			23.10	11.04.00
230			11.35.15	11.02.40

No 46405 broken <sup>was</sup> (replaced)  
 - 47996 substituted for  
 surface temperatures

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *1046*  
 Date, *Oct 10. 91*  
 Locality,  
 Bearings, *Lat 38.33. 2*  
*Long 73. 18 W.*  
 Time of day, *11.14* <sup>am</sup>; of tide,  
 State of sky, *Clear*  
 Temperature of air, *66°*  
 " surface of water, *66°*  
 " at depth of *5* fathoms, *65°* *10f. 65*  
 " of bottom, *51°* *20f. 61*  
*30f. 53*  
*50f. 52*  
 Depth, in fathoms, ~~*100*~~ *104*  
 Nature of bottom, *Sand*  
 Direction of ~~surface current~~, *Wind North*  
 Force of ~~surface current~~, *Wind 4*  
 Direction of ~~bottom current~~,  
 Force of bottom current, *Force - N. N. W 3/4 W.*  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer.

10 47  
REMARKS.

Trawl

	Down	up
0	12.15	1.05.45
100	18.10	1.03.00
200	23.50	59.30
300	29.05	56.10
355	33.10	10.53.30

Register on boom showed 20 f  
when trawl reached surface

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *1047*  
 Date, *Oct. 10. 81*  
 Locality,  
 Bearings, *Lat 35. 31 72,*  
*Long 73. 21. 20,*  
 Time of day, *12. 15* <sup>*pm*</sup> of tide.  
 State of sky, *clear*  
 Temperature of air, *69*  
     " surface of water, *66°*  
     " at depth of *5* fathoms, *65° - 105 - 65°*  
     " of bottom, *49°* *20f - 61°*  
     " *30f - 50°*  
 Depth, in fathoms, *150 - 156,* *50f - 51°*  
 Nature of bottom, *Sand*  
 Direction of ~~surface current~~, *Wind - North,*  
 Force of ~~surface current~~, *" 4*  
 Direction of ~~bottom current~~, *Drift North 1/2 m.*  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

1048

REMARKS.

Surface	1.0250	.65
5 f.	1.0248	65.5
10 f.	1.0248	65.5

Landings

Trawlers

	Landings	Trawlers
0	2.47.30	56.05
100	48.45	54.50
200	49.55	2.53.15
300		2.03.05
400		2.07.30
500		11.30
600		3.02.30
700		14.45
800		58.00
900		17.55
1000		53.50
		20.45
		2.46.35

Messenger <sup>2.10.5</sup> <sub>2.05</sub> = 200 f.

Register on beam 5 fths. ~~short~~ over when trawl reached surface

# TEMPERATURE RECORD.

Instrument used, *Trawl*  
 Current number of observation, *1048*  
 Date, *Oct. 10 81*  
 Locality,  
 Bearings, *S. 81° 25' E.*  
*Trays 78° N. 1. W.*  
 Time of day, *1.55* ; of tide,  
 State of sky, *clear*  
 Temperature of air, *71*  
     " surface of water, *66*  
     " at depth of *5* fathoms, *65*,  
     " of bottom, *40°*  
 Depth, in fathoms, ~~*420*~~ *435*,  
     *10 f. 65°*  
     *20 - 55°*  
     *30 - 49°*  
     *50 - 51°*  
     *100 f. 51°*  
     *200 - 45°*  
 Nature of bottom, *Mud.*  
 Direction of ~~surface current~~, *wind North*  
 Force of ~~surface current~~, *4*  
 Direction of ~~bottom current~~, *Drift - N. 2 miles.*  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

1049

REMARKS.

Trawl

0		3.30.50	5.07
100		3.37.00	5.03.00
200		40.15	58.30
300		44.40	53.45
400		48.00	50.15
500		51.20	46.30
600		53.50	42.30
700		56.00	4.37.00
800		58.00	4.23.30
877		4.08.30	4.17.15

extra weights on runners of  
trawl

Register on boom 3 fms over  
when dredge reached surface

# TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1049*

Date, *Oct. 10. 81*

Locality,

Bearings, *Lat 34. 28. 10*  
*Long 73. 22. 20*

Time of day, *3.30* ; of tide, *pm*

State of sky, *Clear*

Temperature of air, *68*

" surface of water, *66*

" at depth of *5* fathoms, *66* - *10 f - 65*  
*20 f - 55*

" of bottom, *40°* *30 f - 44*  
*50 - 51*

Depth, in fathoms, ~~*420*~~ *435* - *100 - 51*  
*200 - 45*

Nature of bottom, *Mud*

Direction of surface current, *Wind - North*

Force of surface current, *"*

Direction of bottom current, *Drift N N W. 2 mi*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,



105-0

REMARKS.

Indyans by stream  
off St. Jerome Creek.  
St. Jerome, May.

Caught Iron Bushel Oysters

1050

TEMPERATURE RECORD.

Instrument used, *Oyster dredge.*

Current number of observation, *1050.*

Date, *Feb - 27, 1882.*

Locality, *Off St Jerome's Creek -*

Bearings, *Point to Point, about E. 1/4*

Time of day, *2 PM*; of tide, *ebb.*

State of sky, *Partly cloudy.*

Temperature of air, *50*

" surface of water, *44.*

" at depth of \_\_\_\_\_ fathoms,

" of bottom,

Depth, in fathoms, *4 1/2*

Nature of bottom, *Blue mud, shells, oysters*

Direction of ~~surface~~ current, *wind S.E.*

Force of ~~surface~~ current, *" 1*

Direction of ~~bottom~~ current, *drift*

Force of bottom current,

Name of vessel, *U. S. Fish Com. Steamer Fish Hawk*

To what service attached, *U. S. Fish Commission*

Name and rank of commanding officer, *Lieutenant*

*G. L. Tanner, U. S. N.*

Name and position of observer,

REMARKS.

Bridge came up full of  
grass.

1051

## TEMPERATURE RECORD.

Instrument used,

Oyster dredge

Current number of observation,

1051

Date,

Feb, 27, 1882

Locality,

Off St. Jerome Creek

Bearings,

N. X. E. Point to Point, 1.

~~Point to Point St. Jerome Creek~~

Time of day,

2.15 P.M.; of tide, *ebb*

State of sky,

Partly Cloudy

Temperature of air,

55°

"

surface of water,

41°

"

at depth of

fathoms,

"

of bottom,

40

Depth, in fathoms,

2

Nature of bottom,

Blue mud <sup>Gross</sup> ~~fine shells~~Direction of ~~surface current~~,

Wind

S. E.

Force of ~~surface current~~,

1

Direction of ~~bottom current~~,

Drift

~~Force of bottom current,~~

Name of vessel,

U. S. Fish. Com. Fish. Steamer

To what service attached,

Fish Commission

Name and rank of commanding officer,

Lieutenant

B. L. Tanner, U. S. N.

Name and position of observer,

REMARKS.

Dredge came up full of  
mud and grass.

1052

## TEMPERATURE RECORD.

Instrument used, *Oyster Dredge*

Current number of observation, *1052*

Date, *Feb. 27 - 1882*

Locality, *Opp. St. Jerome's Creek*

Bearings, *Point to Point N. N. E. 3/4'*

~~*North Point of St. Jerome's Creek, West*~~

Time of day, *2.30 P.M.*; of tide, *Ebb.*

State of sky, *Partly cloudy*

Temperature of air, *50*

" surface of water, *41°*

" at depth of \_\_\_\_\_ fathoms,

" of bottom, *40*

Depth, in fathoms, *10 fath.*

Nature of bottom, ~~*Hard*~~ *Mud & Grass*

Direction of ~~surface current~~, *Wind S. E.*

Force of ~~surface current~~, " *1*

Direction of bottom current,

Force of bottom current,

Name of vessel, *U.S.F.C. Ste. Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

*W. L. Farmer, U.S.N.*

Name and position of observer,

REMARKS.

Bridge brought up ~~and~~ bridge  
of Angles

1053

TEMPERATURE RECORD.

Instrument used, *Oyster Dredge*

Current number of observation, *1053*

Date, *Feb. 27 - 1852*

Locality, *Off St. James Creek*

Bearings, *Point No Point N. by E. 1/4*  
~~*South Point St. James Creek, West*~~

Time of day, *2.45 Pm*; of tide, *Ebb*

State of sky, *Partly Cloudy*

Temperature of air, *50*

" surface of water, *41*

" at depth of fathoms,

" of bottom, *40*

Depth, in fathoms, *2 3/4*

Nature of bottom, *Blue Mud & Shells.*

Direction of <sup>*wind*</sup> surface current, *SE.*

Force of <sup>*wind*</sup> surface current, *1*

Direction of bottom current, *Drift.*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

*J. L. Tanner, U. S. N.*

Name and position of observer,



REMARKS.

Bridge brought up Five  
Bushels of Oysters

1054

# TEMPERATURE RECORD.

Instrument used, *Copley Reckon*

Current number of observation, *1054*

Date, *Feb. 27 - 1882*

Locality, *Off St. Jerome Creek*

Bearings, *Point No Point N x E. 1 1/4'*

~~*St. Jerome Creek*~~

Time of day, *2.50 P.M.*; of tide, *Ebb*

State of sky, *Part Cloudy*

Temperature of air, *50*

" surface of water, *41*

" at depth of fathoms,

" of bottom, *40*

Depth, in fathoms, *2 3/4*

Nature of bottom, *Blue mud & shell*

Direction of ~~surface current~~, *Wind S. E*

Force of ~~surface current~~, *Wind 1*

Direction of ~~bottom current~~, *Drift*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

*J. L. Tanner, U. S. N.*

Name and position of observer,

105-5-

REMARKS.

Drugs brought up a  
few *Depletis* shells

1055

## TEMPERATURE RECORD.

Instrument used, *Dredge*

Current number of observation, *1055*

Date, *Feb. 28 - 1882*

Locality, *Mouth Patuxent River*

Bearings, *Runy Pt. N. 5. 1/2'*

Time of day, *10.40 Am.*; of tide, *Flood*

State of sky, *Cloudy*

Temperature of air, *46*

" surface of water, *40*

" at depth of \_\_\_\_\_ fathoms,

" of bottom,

Depth, in fathoms, *6*

Nature of bottom, *~~Sl. M.~~ Mud & Shells.*

Direction of ~~surface current~~, *Wind* *Calm*

Force of ~~surface current~~, *Wind* *0*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

105-6

REMARKS.

Quartz brought up a few  
specimens, - Shells & Grasses.

1056

TEMPERATURE RECORD.

Instrument used, *Self-Recording*

Current number of observation, *1056*

Date, *Feb 23 - 1889*

Locality, *Green Point, Catonsville*

Bearings, *cr. on E. 1/3'*

Time of day, *10.55 AM*; of tide, *Flood*

State of sky, *Cloudy*

Temperature of air, *46*

" surface of water, *40*

" at depth of fathoms,

" of bottom,

Depth, in fathoms, *6*

Nature of bottom, *Blue mud & shells*

Direction of ~~surface current~~, *Wind Calm*

Force of ~~surface current~~, *Winds 0*

Direction of bottom current,

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

1057

REMARKS.

Trawl came up with  
few jelly fish

# TEMPERATURE RECORD.

Instrument used, *Beam Trawl*  
 Current number of observation, *1059*  
 Date, *Feb 28 - 1882*  
 Locality, *Off Barron Islands*  
 Bearings, *South Pt. Barron Island*  
*bearing E by S 1 3/4*  
 Time of day, *Mid* ; of tide, *Flood*  
 State of sky, *Cloudy*  
 Temperature of air, *49*  
     "    surface of water, *40*  
     "    at depth of        fathoms,  
     "    of bottom, *40*  
 Depth, in fathoms, *17 - 20 - 12*  
 Nature of bottom, *Blue Mud*  
 Direction of ~~surface~~ current, *Wind N-1*  
 Force of ~~surface~~ current, *Wind*  
 Direction of bottom current,  
~~Force of bottom~~ current, *Drift "W, N, W 1/2*  
 Name of vessel, *U. S. Steer Tack Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *St Jd Tanner*  
 Name and position of observer,

*1059*



1058

REMARKS.

Trawl dropped in 3 fathoms  
and dragged across 25  
fathoms on WNW course  
Trawl hove up in 15 fathoms  
at 12,25 containing few  
small fish and grass  
1 cow fish, some shrimp and  
Young Menhaden

# TEMPERATURE RECORD.

Instrument used, *Beam Trawl*  
 Current number of observation, *1058*  
 Date, *Feb 28<sup>th</sup> 1882*  
 Locality, *Off South end Barren Is.*  
 Bearings, *South Pt Barren Island*  
*bearing S E x E 1/2 E. 2'*  
 Time of day, *12.10* ; of tide, *Flood*  
 State of sky, *Cloudy*  
 Temperature of air, *49*  
     "    surface of water, *40*  
     "    at depth of         fathoms,  
     "    of bottom, *40*  
 Depth, in fathoms, *3-25-13*  
 Nature of bottom, *Blue Mud*  
 Direction of surface current, *N*  
 Force of surface current, *1 1/2 Knot*  
 Direction of ~~bottom~~ *current*, *Wind N-1*  
 Force of ~~bottom~~ *current*, *Drift W. N. W. 3/4*  
 Name of vessel, *U S Steamer Fish Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *Chas J. Tanner*  
 Name and position of observer,

1059

REMARKS.

Trawl put over in  $2\frac{3}{4}$  fathoms  
water and dragged off shore  
N. N. W. (magnetic) in  $\approx 25$  fathoms  
and was hauled up in 14 fms  
at 12.48. Containing small  
fish and grass. Brit species

# TEMPERATURE RECORD.

Instrument used, *Beam Therm*  
 Current number of observation, *1059*  
 Date, *Feb 28<sup>th</sup> 1882*  
 Locality, *off Barren Island*  
 Bearings, *St Pt Barren Island S 6  
1/4 E 2'*  
 Time of day, *12, 30* ; of tide, *Flood*  
 State of sky, *Cloudy*  
 Temperature of air, *49*  
     "    surface of water, *40*  
     "    at depth of        fathoms,  
     "    of bottom, *40*  
 Depth, in fathoms, *2 3/4 fathoms - 25 - 14*  
 Nature of bottom, *Blue mud*  
 Direction of surface current, *N*  
 Force of surface current, *1 1/2 knots*  
 Direction of ~~bottom~~ *winds - Calm*  
 Force of bottom current, *drift WNW, 3/4*  
 Name of vessel, *U. S. Steer Fish Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *St Jd Tanner*  
*W J*  
 Name and position of observer,

1060

REMARKS.

Beam Trawl was  
put over at 11.40 and  
dragged S E x S  $\frac{3}{4}$  mile  
at 5 fathoms up Trawl it  
containing little grass  
shells & blue mud

# TEMPERATURE RECORD.

Instrument used, *Beam Therm*  
 Current number of observation, *1060*  
 Date, *Feb 28<sup>th</sup> 1882*  
 Locality, *Smith Point*  
 Bearings, *Southerly Pt SSW, 2 1/2*  
  
 Time of day, *4:40* ; of tide, *Flood*  
 State of sky, *Cloudy*  
 Temperature of air, *46*  
     " surface of water, *41*  
     " at depth of        fathoms,  
     " of bottom, *40 1/2*  
 Depth, in fathoms, *7*  
 Nature of bottom, *Blue mud & shells*  
 Direction of ~~surface current~~ *Wind NE*  
 Force of ~~surface current~~ *Wind E*  
 Direction of ~~bottom current~~ *Drift SE x S 3/4 mile*  
 Force of bottom current,  
 Name of vessel, *U.S. Steamer Fish Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *Lt Jd Tanner*  
*upn*  
 Name and position of observer,  
     *C. H. Cleveland*  
     *U.S. Fish Comm.*

1061

REMARKS.

at 11:20

Dredge was put over  
in 11 fathoms water.

and hauled up at 11:28

from 16 fathoms water containing

1 shrimp - half dozen

small shells & blue mud

& small fish

# TEMPERATURE RECORD.

Instrument used, *Dredge*  
 Current number of observation, *9061*  
 Date, *March 2<sup>d</sup> 1892*  
 Locality, *Chesapeake Bay*  
 Bearings, *Smoko Pt. St. No. ~~S. 20° E~~*  
*S. 70° 1/2 W. 1 1/2*  
 Time of day, *11.20* ; of tide, *Ebb*  
 State of sky, *Clear*  
 Temperature of air, *48*  
     "    surface of water, *41 1/2*  
     "    at depth of        fathoms,  
     "    of bottom, *41 1/2*  
 Depth, in fathoms, *11 - 16*  
 Nature of bottom, *Blue mud & shells*  
 Direction of ~~surface current~~, *Wind SW*  
 Force of ~~surface current~~, *Wind 2*  
 Direction of bottom current, *Drift S 1/2 mile*  
 Force of bottom current,  
 Name of vessel, *U. S. Steamer "Fish Hawk"*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *St. J. Tanner*  
*ago*  
 Name and position of observer,



1062

REMARKS.

Beam Trawl put over  
at 11.40 in 16 faths water  
and hove up at 11.55 from  
3 1/2 faths containing nothing

# TEMPERATURE RECORD.

Instrument used, *Bain Therm*  
 Current number of observation, *1062*  
 Date, *July 2<sup>d</sup> 1882*  
 Locality, *Chesapeake Bay*  
 Bearings, *Smiths Pt Lt Sta ~~S 1/2 E~~ ~~S 1/2 W~~*  
  
 Time of day, *11.40* ; of tide, *Ebb*  
 State of sky, *Clear*  
 Temperature of air, *48*  
     "    surface of water, *41 1/2*  
     "    at depth of \_\_\_\_\_ fathoms,  
     "    of bottom, *41 1/2*  
 Depth, in fathoms, *16-11-10-9 1/2*  
 Nature of bottom, *Blue mud & shells*  
 Direction of ~~surface~~ current, *Wind NW*  
 Force of ~~surface~~ current, *Wind 2*  
 Direction of ~~bottom~~ current, *Drift S & W 1 mile*  
 Force of bottom current, \_\_\_\_\_  
 Name of vessel, *U S Steamer Fish Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *Ct Jd Tanner*  
  
 Name and position of observer, \_\_\_\_\_

1063

REMARKS.

Chester Rake Bridge  
was put over at 1.35 PM  
in 10 1/2 faths water  
and hove up at 1.45 from  
9 3/4 faths containing sea  
weed and shrimps also  
two species of marine  
worms 1 small fish

## TEMPERATURE RECORD.

Instrument used, *Chester Rake Design*  
 Current number of observation, *1063*  
 Date, *Mch - 2<sup>o</sup> 1882*  
 Locality,  
 Bearings, *N x E <sup>3</sup>/<sub>4</sub> E South Point  
of Tangier Island 2 1/4*  
 Time of day, *7.35* 1/4 of tide, *Flood*  
 State of sky, *Clear*  
 Temperature of air, *50*  
     " surface of water, *44*  
     " at depth of \_\_\_\_\_ fathoms,  
     " of bottom, *42*  
 Depth, in fathoms, *10 1/2 - 10 - 9 3/4*  
 Nature of bottom, *Grass & Blue Mud*  
 Direction of ~~surface~~ current, *Wind North*  
 Force of ~~surface~~ current, *Wind 2*  
 Direction of bottom current, *Drift N E x E 1/2 mile*  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *U S Fish Commission*  
 Name and rank of commanding officer, *St Jd Tanner*  
 Name and position of observer,

1064

REMARKS.

Crustacean Rake Dredge  
was put over at 2.17 PM  
in 20 fathoms water and  
hove up at 2.25 from  
9 1/2 fathoms water containing  
Black mud + dead oyster  
shells and dead grass  
2 dozen Shrimp - Brown  
tubes + small shell

## TEMPERATURE RECORD.

Instrument used, *Chester Rake Sledge*

Current number of observation, *1064*

Date, *Feb 2" 1882*

Locality,

Bearings, *NNW South Pt of  
Langier Island 1'*

Time of day, *2:17* ; of tide, *Flood*

State of sky, *Clear*

Temperature of air, *50*

" surface of water, *42*

" at depth of \_\_\_\_\_ fathoms,

" of bottom, *42*

Depth, in fathoms, *20 - 9 1/2 -*

Nature of bottom,

Direction of ~~surface~~ current, *Wind NW*

Force of ~~surface~~ current, *Wind 2*

Direction of ~~bottom~~ current, *Drift NE + E 1/2 mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *St. J. S. S. S.*

Name and position of observer.

1065

REMARKS.

Beam Trawl was put over  
at 9 am in 25 faths water  
and dragged W about 1/2  
mile - At 9:10 hauled up  
in 12 faths it containing  
Sea urch. 150g fish  
4 Skates 10 Hermit Crabs  
25 Brit. 50 small Hake  
several Shrimps 2 Sea  
Horses. Several Ripe fish  
10 Small Flounders

W. Chryz. St. H. L. Con. E. N. 2.

# TEMPERATURE RECORD.

Instrument used, *Beam Therm*

Current number of observation, *10.65*

Date, *Feb 6<sup>th</sup> 1882*

Locality, *Chesapeake Bay*

Bearings, *Run off Entrance to Chesapeake*

*Inlet bearing East  $1\frac{1}{2}$  or  $\frac{3}{4}$*

Time of day, *9 AM*; of tide, *Flood*

State of sky, *Cloudy*

Temperature of air, *56*

" surface of water, *45* *57.40*

" at depth of \_\_\_\_\_ fathoms,

" of bottom, *46.5*

Depth, in fathoms, *25*

Nature of bottom,

Direction of ~~surface current~~, *Wind S. S. W.*

Force of ~~surface current~~, *3*

~~Direction of bottom current~~, *Drift W.  $\frac{1}{4}$  mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Ensign*

*J. L. Tanner, U. S. N.*

Name and position of observer,



1066

REMARKS.

Beam Trawl was put over  
at 9.20 AM, in 12 fms. water  
and dragged S.S.E. at 9.33  
hove in Trawl in 16 fms.  
containing grass and half  
dozen small fish (Brits)

net 11.00 S.S.E.

## TEMPERATURE RECORD.

Instrument used. *Beam Trawl*

Current number of observation, *1066*

Date, *Nov. 6. 1882*

Locality, *Chesapeake Bay.*

Bearings, *Buoy off Entrance to Chesapeake*

*Light bearing E. S. E. 2'.*

Time of day, *9.20 AM*; of tide, *Flood*

State of sky, *Cloudy*

Temperature of air, *56.*

" surface of water, *45*

" at depth of fathoms, *1*

" of bottom, *45*

Depth, in fathoms, *12*

Nature of bottom,

Direction of ~~surface current~~, *Wind S. S. W.*

Force of ~~surface current~~, *Wind 3.*

Direction of ~~bottom current~~, *Drift E. S. E. 1/4 mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

*J. L. Tanner U.S.N.*

Name and position of observer,

1067

REMARKS.

Beam Trawl was put  
over at 9.40 Am in 12  
fathoms water, at 9.58. hove up  
the Trawl, in 20 fms. water,  
it contained 2 Skates & about  
50 small hake & 1 big fish  
1 crab 25 Brit and  
several Shrimps. 1 Horn fish  
12 Flounders and few  
Hermit Crabs & small shell  
Rays shell

Lat. 54° 10'. Long. 14° 31'.

# TEMPERATURE RECORD.

Instrument used, *Beam Trawl*

Current number of observation, *1067*

Date, *Mar. 5 - 1882*

Locality, *Chesapeake Bay*

Bearings, *Buoy off entrance to Chesapeake*

*bearing S. E.  $1/4$  S  $2/4$*

Time of day, *9.40 AM*; of tide, *Flood*

State of sky, *Partly Cloudy*

Temperature of air, *56*

" surface of water, *45*

" at depth of \_\_\_\_\_ fathoms,

" of bottom, *47*

Depth, in fathoms, *12*

Nature of bottom,

Direction of ~~surface current~~, *Wind S. S. W*

Force of ~~surface current~~, *Wind 3.*

~~Direction of bottom current~~, *Drift W N W  $1/2$  mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

*J. L. Tanner, U. S. N.*

Name and position of observer,

1068

REMARKS.

Beam Trawl was put  
over at 10 am in 14 fms.  
of water. At 10.15 hove,  
up Beam Trawl. It having  
been down 15 minutes,  
containing 1 Perch several  
Flat fish - mud & grass

# TEMPERATURE RECORD.

*Bear's Trawl*

Instrument used, *N.Y. 46402*

Current number of observation, *1068*

Date, *Mar. 11, 1882*

Locality, *Off Kent Island*

Bearings, *Thomas Pt. House bearing*

*W x S. 3/4 S. 2'*

Time of day, *9.50* ; of tide, *Ebb.*

State of sky, *Clear*

Temperature of air, *49*

" surface of water, *42*

" at depth of \_\_\_\_\_ fathoms,

" of bottom, *41*

Depth, in fathoms, *14-9-*

Nature of bottom, *Rock mud*

Direction of ~~surface current~~, *Wind N.W.*

Force of ~~surface current~~, *Wind 4*

Direction of bottom current, *Drift N 1/2 mile*

Force of bottom current,

Name of vessel, *Fish Hawk*

To what service attached, *Fish Commission*

Name and rank of commanding officer, *Lieutenant*

*J. L. Tanner, U.S.N.*

Name and position of observer,

1069

REMARKS.

Beam Trawl was put  
at 10.20 am, 18 fathoms of  
water. Haul up Beam  
Trawl it having been  
down 17 minutes containing  
sea mud & several young  
Herring

# TEMPERATURE RECORD.

Instrument used, *Barn Invol*  
 Current number of observation, *1069*  
 Date, *March 11 - 1852*  
 Locality, *Off Peck Island*  
 Bearings, *Thomas Pt. L. House*  
*bearing) S. W x W  $\frac{3}{4}$  W. 2  $\frac{1}{4}$*   
 Time of day, *10.20* ; of tide, *Ebb,*  
 State of sky, *Clear*  
 Temperature of air, *51*  
     "    surface of water, *42*  
     "    at depth of        fathoms,  
     "    of bottom, *40*  
 Depth, in fathoms, *18*  
 Nature of bottom, *Black Mud.*  
 Direction of ~~surface current,~~ *Wind N.W*  
 Force of ~~surface current,~~ *Wind 4*  
 Direction of ~~bottom current,~~ *Drift S.W.  $\frac{1}{2}$  mi.*  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *Captain*  
*D. L. Tanner, U.S.N.*  
 Name and position of observer,



1070

REMARKS.

Beam Trawl was put  
over at 10.45 am, in  
15 fms. of water, it having  
been down 18 minutes  
Hove it up containing several  
young Menhaden, 2 Small  
Rock fish and 1 flounder

# TEMPERATURE RECORD.

Instrument used, *Beam Trawl*  
 Current number of observation, *1070*  
 Date, *March 11, 1882*  
 Locality, *Off Kent Island*  
 Bearings, *Thomas Pt. Light House*  
*bearing N x S. E.*  
 Time of day, *10.45 am*; of tide, *Ebb*  
 State of sky, *Clear*  
 Temperature of air, *45-*  
     "    surface of water, *42*  
     "    at depth of  fathoms,  
     "    of bottom, *42*  
 Depth, in fathoms, *15 - 11 - 10*  
 Nature of bottom, *Black mud*  
 Direction of ~~surface current~~, *Wind S.W.*  
 Force of ~~surface current~~, *Wind 4*  
 Direction of ~~bottom current~~, *Drift S.S.W. 1/2 mile*  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *Lieutenant*  
*G. L. Tanner, U. S. N.*  
 Name and position of observer,

1071

REMARKS.

Beam Trawl was put  
over at 11.22 am. in 14 fms.  
of water and hove up  
at 14 minutes of 12. M.  
it having been down 24  
minutes. Contained a few  
shrimps and young Menidia

# TEMPERATURE RECORD.

Instrument used, *Beam Therm*  
 Current number of observation, *1071*  
 Date, *March 11, 1882*  
 Locality, *Off Kent Island*  
 Bearings, *Thomson, N. bearing*  
*W x N 1/2 N. 2, 74*  
 Time of day, *11, 22 AM* of tide, *Ebb*  
 State of sky, *Clear*  
 Temperature of air, *49*  
 " surface of water,  
 " at depth of fathoms,  
 " of bottom, *40*  
 Depth, in fathoms, *14 - 15 - 13 -*  
 Nature of bottom, *Black mud*  
 Direction of ~~surface~~ current, *Wind N. W*  
 Force of ~~surface~~ current, *Wind 4*  
 Direction of ~~bottom~~ current, *Drift S 7/8 W 3/4 mile*  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *Lieutenant*  
*W. L. Tanner, U. S. N*  
 Name and position of observer,

1072

REMARKS.

Put Rake Dredge over  
at 12 m. in 16 fms of  
water - At 12.20 hauled  
up dredge it containing  
nothing

## TEMPERATURE RECORD.

Instrument used, *Rake Bredge*  
 Current number of observation, *1072*  
 Date, *March 11 - 1882*  
 Locality, *Off Rock Island*  
 Bearings, *Thomas Pt. bearing*  
*N. W. 2 1/4*  
 Time of day, *12 m* ; of tide, *Ebb*  
 State of sky, *Clear*  
 Temperature of air, *50*  
     "    surface of water, *42*  
     "    at depth of        fathoms,  
     "    of bottom, *42*  
 Depth, in fathoms, *16*  
 Nature of bottom, *Black mud*  
 Direction of ~~surface~~ current, *Wind N.W.*  
 Force of ~~surface~~ current, *Wind 4*  
 Direction of ~~bottom~~ current, *Drift S 3/4 mile*  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *Lieutenant*  
*J. L. Tanner* *U.S.N.*  
 Name and position of observer,

1073

REMARKS.

Put Rake Dredge over at  
12.25 PM in 1/2 fathoms  
Water at 12.47 hove up Rake  
Dredge it containing Cyprid  
shells & grass - 2 crabs and  
2 marine worms

## TEMPERATURE RECORD.

Instrument used, *Rake Dredge*  
 Current number of observation, *1073*  
 Date, *March 11<sup>th</sup> 1882*  
 Locality, *Off Kent Island*  
 Bearings, *Thomas Pt bearing*  
*NW x N 2 1/2*  
 Time of day, *1225*; of tide, *Ebb*  
 State of sky, *Clear*  
 Temperature of air, *50*  
     "    surface of water, *42*  
     "    at depth of        fathoms,  
     "    of bottom, *42*  
 Depth, in fathoms, *13 - 13 -*  
 Nature of bottom, *Blk Mud + Shells*  
 Direction of ~~surface current~~, *wind NW*  
 Force of ~~surface current~~, *wind 3*  
 Direction of ~~bottom current~~, *drift SSW*  
 Force of bottom current,  
 Name of vessel, *Fish Hawk*  
 To what service attached, *Fish Commission*  
 Name and rank of commanding officer, *Lt Izora Le*  
*Tanner* *Agus*  
 Name and position of observer,



REMARKS.