

U. S. F. C.
Records,

—
Nos. 961-1028.

—
1881.
—

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Numbers 961 to 1028

1884,

2.

Copy,

U. S. Fish Comm.
Dredging Records.
Nos. 961-1028.
1884.

TEMPERATURE RECORD.

Instrument used, *Trawl with wings.*
 Current number of observation, *961.*
 Date, *Aug. 26, 1881.*
 Locality, *Buzzards Bay,*
 Bearings, *Nyes Neck, N. E. $3/4$ E,*
2 $3/4$ m.
 Time of day, *1.52 P.M.*; of tide, *Low,*
 State of sky, *Clear.*
 Temperature of air, *71.5*
 " surface of water, *69.*
 " at depth of fathoms,
 " of bottom, *68.*
 Depth, in fathoms, *8.*
 Nature of bottom, *bl. mud*
 Direction of ~~surface~~ ^{wind} current, *S. W. force 5,*
 Force of ~~surface~~ ^{drift} current, *N. by S. $3/4$ m*
 Direction of bottom current,
 Force of bottom current,
 Name of vessel, *Fish Hawk.*
 To what service attached, *U. S. Fish Commission*
 Name and rank of commanding officer, *Z. L. Tanner*
 Lieut, U. S. Navy,
 Name and position of observer,
 Prof A. P. Chapin
 Warsaw, N.Y.

REMARKS.

Lined area for handwritten remarks.

GENERAL NOTE RECORD

TEMPERATURE RECORD.

Instrument used, *Trawl with wings.*

Current number of observation, *962.*

Date, *Aug. 26, 1881.*

Locality, *Buzzard Bay,*

Bearings, *Noe pocket Id. N. E.
3/4 E, 1 1/4 m.*

Time of day, *3.10 P.M.* of tide, *flood.*

State of sky, *Clear.*

Temperature of air, *71.*

“ surface of water, *68*

“ at depth of fathoms,

“ of bottom, *66,*

Depth, in fathoms, *8,*

Nature of bottom, *bl. mud sand,*

Direction of surface current, *wind S. N. force 6,*

Force of surface current, *~~drift~~ *W. N. W. 1/2 m.**

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,

REMARKS.

LEWISVILLE MISSISSIPPI

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *963*,
 Date, *Aug. 26, 1881*,
 Locality, *Buzzard's Bay*,
 Bearings, *Woopicket Id. S. E. 1/2 S.*
1 mile
 Time of day, *3.40 P.M.* of tide, *flood*,
 State of sky, *Clear*
 Temperature of air, *70*,
 " surface of water, *68*,
 " at depth of fathoms,
 " of bottom, *66*,
 Depth, in fathoms, *8 1/2*
 Nature of bottom, *brown mud*
 Direction of surface current, *wind S, N. force 6*,
 Force of surface current, *drift W. S. W. 3/4 m.*
 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,

REMARKS.

UNIVERSITY MICROFILMS

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *964*,
 Date, *Aug. 30, 1881.*
 Locality, *Crab Sledge,*
 Bearings, *Chatham Light N. W.*
1/2 W, 5 miles,
 Time of day, *7.50* ; of tide, *ebb.*
 State of sky, *Clear.*
 Temperature of air, *65.*
 " surface of water, *61.*
 " at depth of *5* fathoms, *59.*
 " of bottom, *55.*
 Depth, in fathoms, *10.*
 Nature of bottom, *Sandy gravel*
 Direction of ~~surface current~~ *wind S, force 4.*
~~Force of surface current~~, *Drift, E. S. E. 1/8 W*
 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,

964,
REMARKS.

Sand and fine gravel,
Starfish, Sponges.

✓
TEMPERATURE RECORD.

Instrument used, *Snodgrass*
Current number of observation, *965*
Date, *Aug. 30, 1881,*
Locality, *Crab Sedges*
Bearings, *Chatham Light*
N. W. by W. 6 miles.
Time of day, *8, 15* ; of tide, *ebb,*
State of sky, *Clear*
Temperature of air, *65,*
" surface of water, *61*
" at depth of *5* fathoms, *59*
" of bottom, *53*
Depth, in fathoms, *15,*
Nature of bottom, *Sand & gravel*
Direction of ~~surface~~ *wind* current, *S. force 7.*
Drift
Force of surface current, *S. E. by E. 1/3 m.*
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,

965,
REMARKS.

Similar to last

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *966*
 Date, *Aug. 30, 1881, Crab ledge*
 Locality, *Chatham Light*
 Bearings, *N. W. by W. 1/4 W. 6 1/4 m.*

Time of day, *8, 40^{am}*; of tide, *ebb.*

State of sky, *Clear.*

Temperature of air, *65,*

“ surface of water, *61.*

“ at depth of *10* fathoms, *54.*

“ of bottom, *52,*

Depth, in fathoms, *16,*

Nature of bottom, *Sand, small stones.*

Direction of ^{*wind*} surface current, *S. W. force 4,*

Force of ^{*drift*} surface current, *S. E 1/8 m.*

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,

REMARKS

966,
REMARKS.

Similar to last.

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *967*
 Date, *Aug. 30, 1881,*
 Locality, *Crab Ledge,*
 Bearings, *Chatham Light*
N. W. by W, 1/4 W, 6 3/4 m.
 Time of day, *8.50* ; of tide, *ebb.*
 State of sky, *Clear*
 Temperature of air, *66.*
 " surface of water, *61.*
 " at depth of *5* fathoms, *61.*
 " of bottom, *5-2,*
 Depth, in fathoms, *16,*
 Nature of bottom, *Sand, gravel,*
 Direction of ^{*wind*} surface current, *S. W. force 4,*
^{*Drift*} Force of surface current, *S. E, 1/6 m,*
 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,

967
REMARKS.

No sand came up
a clean haul, not much
but rich. Bryozoa,
Hydroids, Crabs, Ascidian
apparently. Rocky bottom
Stony

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *968*
 Date, *Aug. 30, 1881,*
 Locality, *Crab Sedges*
 Bearings, *Chatham Light*
N. W. by W. 3/4 W. 7 1/4 m.
 Time of day, *9.* ; of tide, *ebb,*
 State of sky, *Clear.*
 Temperature of air, *66.*
 " surface of water, *61.5*
 " at depth of *5* fathoms, *61.*
 " of bottom, *50.5*
 Depth, in fathoms, *18*
 Nature of bottom, *Gravel*
 Direction of ~~surface current~~ *and* *S. W. force 4.*
~~Force of surface current,~~ *drift* *N. W. by W. 1/8 m.*
 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,

968.

REMARKS.

Similar to 964

✓
TEMPERATURE RECORD.

Instrument used, *Dredge*
Current number of observation, *969*
Date, *Aug. 30, 1881.*
Locality, *Crab Sedge*
Bearings, *Chatham Light*
N. W. by W. 3/4 W. 7 m.
Time of day, *9, 10 am*; of tide,
State of sky, *Clear*
Temperature of air, *66.*
" surface of water, *61.5*
" at depth of fathoms,
" of bottom, *51.*
Depth, in fathoms, *18,*
Nature of bottom, *Sand, stones.*
Direction of ~~surface current~~ *Wind*, *S. W. force 4,*
Force of surface current, *Drift* *S. E. 1/4 W.*
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,

969,
REMARKS.

Similar to last

✓
TEMPERATURE RECORD.

Instrument used, *Dredge*
Current number of observation, *970*
Date, *Aug. 30, 1881.*
Locality, *Crab Sedges*
Bearings, *Chatham Light*
W, N, W, 3/4 W. 6m.
Time of day, *9.43 am* of tide,
State of sky, *Clear*
Temperature of air, *67.*
" surface of water, *61,*
" at depth of _____ fathoms,
" of bottom, *54,*
Depth, in fathoms, *13,*
Nature of bottom, *Sand, pebbles, stones*
Direction of ~~surface current~~ *wind* *S, W, force 4,*
Force of ~~surface current~~ *drift* *W, N, W. 1/8 m,*
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,

970

REMARKS.

Similar to last.

✓
TEMPERATURE RECORD.

Instrument used, *Dredge*
Current number of observation, *971*
Date, *Aug. 30, 1881*
Locality, *Crab Sedge*
Bearings, *Chatham Light*
N. 3/4 N. 4 1/4 m.
Time of day, *10.05 am* of tide,
State of sky, *Clear*
Temperature of air, *67*
" surface of water, *61.5*
" at depth of _____ fathoms,
" of bottom, *54*
Depth, in fathoms, *11*
Nature of bottom, *Sand, pebbles, gravel*
Direction of ~~surface~~ ^{*wind*} current, *S. W. force 4*
Force of ~~surface~~ ^{*drift*} current, *S. S. E. 1/4 m.*
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,

971,
REMARKS.

Similar to last,

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *972*
 Date, *Aug. 20, 1881,*
 Locality, *Crab Sedges*
 Bearings, *Chatham Light,*
N. W. by W. 7/8 W. 7/2 m,
 Time of day, *10.48 am,* of tide,
 State of sky, *Clear.*
 Temperature of air, *67.*
 " surface of water, *62*
 " at depth of fathoms,
 " of bottom, *52,*
 Depth, in fathoms, *16,*
 Nature of bottom, *Gravel sand, stones*
 Direction of ~~surface current,~~ *with S. W. force 5,*
 Force of ~~surface current,~~ *Drift N. E. 1/8 m*
 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,

972
REMARKS.

Land gravel, very
Rich.

Compd. ascidians

Boltenia

~~*Crocis*~~ *Lophothamnion*

TEMPERATURE RECORD.

Instrument used,

Dredge

Current number of observation,

973

Date,

Aug, 30, 1881,

Locality,

off Chatham, Crab Sedge

Bearings,

Chatham Light

N. N. W. 6 3/4 m.

Time of day,

11.10 a.m. of tide, Low.

State of sky,

Clear.

Temperature of air,

67.

"

surface of water,

62

"

at depth of

fathoms,

"

of bottom,

51.

Depth, in fathoms,

17.

Nature of bottom,

Gravel, sand, stones.

Direction of ~~surface current,~~

into S. W. from 5

Force of ~~surface current,~~

Drift - W, S, W, 1/8 m

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,

REMARKS.

1. Name of vessel

2. Name of commanding officer

3. Name of observer

4. Date

5. Time of day

6. Name of vessel

7. Name of vessel

8. Name of vessel

9. Name of vessel

10. Name of vessel

11. Name of vessel

12. Name of vessel

13. Name of vessel

14. Name of vessel

15. Name of vessel

16. Name of vessel

17. Name of vessel

18. Name of vessel

19. Name of vessel

20. Name of vessel

21. Name of vessel

22. Name of vessel

INTERNATIONAL BUREAU

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *974*
 Date, *Aug. 30, 1881,*
 Locality, *off Chatham, Crabbeds*
 Bearings, *Chatham Light,*
N. N. W. 1/2 W. 6 1/2 m
 Time of day, *11, 30* ; of tide, *low*
 State of sky, *Clear,*
 Temperature of air, *67.*
 " surface of water, *62*
 " at depth of _____ fathoms,
 " of bottom, *51,*
 Depth, in fathoms, *16.*
 Nature of bottom, *Gravel, sand, shales.*
 Direction of ^{*wind*} surface current, *S. W. force 5.*
 Force of surface current, *Drift W. S. W. 1/8 m*
 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,

REMARKS.

TEMPERATURE RECORD

✓

TEMPERATURE RECORD.

Instrument used,

Dredge

Current number of observation,

975

Date,

Aug. 30, 1881.

Locality,

Crab Sedge

Bearings,

Chatham Light

W, N, W. 1/4 W. 6 1/4 m.

Time of day, *11.45 am*, of tide,

State of sky,

Clear

Temperature of air,

68.

"

surface of water,

63.

"

at depth of

fathoms,

"

of bottom,

52

Depth, in fathoms,

16.

Nature of bottom,

Gravel sand, shales.

Direction of ~~surface current~~,

wind

S. W. force 5.

~~Force of surface current,~~

drift

S. 1/8 m

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,

REMARKS.

LEARN BY LOVE RECORD

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *976.*
 Date, *Aug 30, 1881.*
 Locality, *Crab Sedges*
 Bearings, *Chatham lights*
W, N. W. 5/8 W. km,
 Time of day, *12m* ; of tide, *flood.*
 State of sky, *Clear*
 Temperature of air, *69.*
 " surface of water, *63.*
 " at depth of _____ fathoms,
 " of bottom, *52,*
 Depth, in fathoms, *16.*
 Nature of bottom, *gravel, sand, shells,*
 Direction of ^{*wind*} surface current, *S. W. force 5,*
 Force of ^{*drift*} surface current, *S. S. W 1/2 W*
 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,

REMARKS.

[Faint, illegible text on lined paper]

✓
TEMPERATURE RECORD.

Instrument used, Dredge
Current number of observation, 977
Date, Aug. 30, 1881.
Locality, Crab Sedges
Bearings, Chatham Light

Time of day, 12.20^{PM} of tide, Flood

State of sky, Clear.

Temperature of air, 70.

" surface of water, 64

" at depth of fathoms,

" of bottom, 52.

Depth, in fathoms, 17.

Nature of bottom, Sand pebbles, stones
and

Direction of surface current, S. W. force, 4,

Force of surface current, drift W. by N. 1/4 m

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,

REMARKS.

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *978*
 Date, *Aug. 30, 1881,*
 Locality, *Crab Sedge,*
 Bearings, *Chatham Light*
W. N. W. 6 m.
 Time of day, *12.30* ; of tide, *flood.*
 State of sky, *Clear*
 Temperature of air, *70*
 " surface of water, *64,*
 " at depth of fathoms,
 " of bottom, *52.*
 Depth, in fathoms, *17.*
 Nature of bottom, *Sand, pebbles, stones,*
 Direction of surface current, *and S. W. force 5,*
 Force of surface current, *Drift W. by N. 1/8 m.*
 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,

REMARKS.

Blank lined page for recording remarks.

TEMPERATURE RECORD.

Instrument used, *Dredge*
 Current number of observation, *979*
 Date, *Aug 30, 1881,*
 Locality, *Crab. Ledges*
 Bearings, *Chatham Lights,*
W, N. W. 1/4 W. 6 m
 Time of day, *12.40 pm* of tide,
 State of sky, *Clear*
 Temperature of air, *70.*
 " surface of water, *64,*
 " at depth of fathoms,
 " of bottom, *52,*
 Depth, in fathoms, *16.*
 Nature of bottom, *Sand,*
 Direction of ^{*wind*} surface current, *S. W. force 5,*
~~Force of surface current,~~ *Drift*
W. by N. 1/8 m
 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,

REMARKS.

✓
TEMPERATURE RECORD.

Instrument used, Dredge
Current number of observation, 980,
Date, Aug. 30, 1881,
Locality, Crab Sedges,
Bearings, Chulham Light
N. W. by W, $1/4$ W, $5\frac{3}{4}$ miles,
Time of day, 1 P.M. ; of tide, low.
State of sky, Clear
Temperature of air, 70.
" surface of water, 62
" at depth of fathoms,
" of bottom, 53,
Depth, in fathoms, 14,
Nature of bottom, Sand, Shells, pebbles,
Direction of ~~surface current,~~ ^{wind} S. W. force 5,
Force of surface current, ~~drift~~ S. W. 1/8 m
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,

980,

REMARKS.

Up to and including this haul on and about Crab ledge, similar bottom everywhere, in some places moderately rich in others much less so.

Solaster endeca 1

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *981*
 Date, *Aug. 30, 1881*
 Locality, *off Chatham*
 Bearings, *Chatham Light*
W. N. W. 16 m,
 Time of day, *2.10 P.M.* of tide, *lood*
 State of sky, *clear*
 Temperature of air, *65*
 " surface of water, *63.5*
 " at depth of *5* fathoms, *63*
 " of bottom, *49*
 Depth, in fathoms, *41. = 43*
 Nature of bottom, *S. gravel*
 Direction of ^{*wind*} surface current, *S. W. force 5*
 Force of surface current, ^{*Drift*} *S. 1/4 W. 1 1/2 m,*
 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, .

REMARKS.

TEMPERATURE RECORD.

Instrument used, *Trawl,*
 Current number of observation, *982*
 Date, *Aug. 30, 1887,*
 Locality, *off Chatham*
 Bearings, *Lat. 41° 36' N*
Long. 69° 35' W.
 Time of day, *2,45* ; of tide, *lood*
 State of sky, *Clear,*
 Temperature of air, *65°*
 " surface of water, *63.5*
 " at depth of *5* fathoms, *60,*
 " of bottom, *41.5*
 Depth, in fathoms, *40, = 42*
 Nature of bottom, *Sand & gravel*
 Direction of ^{*wind*} ~~surface current~~, *S. W. force 7,*
^{*Drift*} Force of surface current, *S. S. W. 1 1/2 m*
 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,

982

REMARKS.

Hippasteria phrygiana 2

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *983,*
 Date, *Aug. 30, 1881,*
 Locality, *Lat 41, 30 N (off Chatham)*
 Bearings, *Long. 69° 32' 34" W,*

Time of day, *3, 23 P.M.* of tide, *ebb*

State of sky, *Clear.*

Temperature of air, *64.5*

" surface of water, *64,*

" at depth of *5* fathoms, *62,*

" of bottom, *42,*

Depth, in fathoms, *35, = 36*

Nature of bottom, *Sand.*

Direction of ^{*wind*} surface current, *S. W. force 7.*

~~Force of surface current,~~ *drift S. by E. 1/2 N.*

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,

983

REMARKS.

Hippasteria phryganea 2

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *984*,
 Date, *Aug. 30, 1884*,
 Locality, *Off Chatham*
 Bearings, *Lat. 41° 31' N,*
 Long. 69° 28' 32" W,
 Time of day, *4.07* hr *min* of tide, *6* hr *min* *clear*
 State of sky, *clear*.
 Temperature of air, *64*,
 " surface of water, *63.5*
 " at depth of *5* fathoms, *63*,
 " of bottom, *41.5*
 Depth, in fathoms, *32 = 33*,
 Nature of bottom, *mud and sand*,
 Direction of ~~surface current~~ ^{*wind*} *S. W.*, force *6*,
 Force of ~~surface current~~ ^{*drift*} *S. 1/2 W.*, *1/2 m.*
 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,

984
REMARKS.

Hippasteria phrygiana 3

✓
TEMPERATURE RECORD.

Instrument used, Trawl
Current number of observation, 985.
Date, Sept. 7. 1881.
Locality, off No man's Land ^{15 miles} South,
Bearings, Lat. $41^{\circ} 00' N$
Long. $70^{\circ} 49' W$.
Time of day, 12.55 ^{Pm}; of tide,
State of sky, Clear, hazy horizon,
Temperature of air, 73°
" surface of water, 66°
" at depth of 5 fathoms, 64°
" of bottom, 50°
Depth, in fathoms, 26.
Nature of bottom, Sand.
Direction of ^{wind} surface current, S.W. force, 3.
Force of surface current, ^{Drift-} S.W. by ~~S~~^{SE}, $1\frac{1}{4}$ m.,
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,
Read

985.

REMARKS.

Echinarachnium parma
very many, large.

Suberites completa very many.

Sagitta elegans, very abdt in
wings

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *986*,
 Date, *Sept. 7, 1881*,
 Locality, *19 miles S. of No Man's Land*,
 Bearings, *Lat. 40° 55' N*,
 Long. 70° 48' W.
 Time of day, *2 P.M.*; of tide,
 State of sky, *Clear*.
 Temperature of air, *73°*
 " surface of water, *67°*
 " at depth of *5* fathoms, *63°*
 " of bottom, *49°*.
 Depth, in fathoms, *28*.
 Nature of bottom, *sands*.
 Direction of ^{*wind*} surface current, *S. W. force 3*,
 Force of ^{*drift*} surface current, *S. 1/2 W. 1 m.*
 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,

986,
REMARKS.

Sagitta very abdt in wings

✓
TEMPERATURE RECORD.

Instrument used, *Chester Rake Dredge*

Current number of observation, *987*

Date, *Sept. 7, 1881.*

Locality, *off No Man's Land*

Bearings, *Lat. 40° 54' N.*

Long. 70° 48' 30" W.

Time of day, *2, 28* ; of tide,

State of sky, *clear.*

Temperature of air, *73°*

“ surface of water, *67°*

“ at depth of *5* fathoms, *65°*

“ of bottom, *49°*

Depth, in fathoms, *28,*

Nature of bottom, *sand*

Direction of ~~surface~~ *wind* current, *S. W. force 3.*

Force of surface current,

Drift Direction of bottom current, *S. 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,

REMARKS.

ICNBERLINE BLODND

✓
TEMPERATURE RECORD.

Instrument used, *Chester Rake Dredge*

Current number of observation, *988.*

Date, *Sept. 7. 84.*

Locality, *off Roman's Land.*

Bearings, *Lat. 40° 49' 30" N,*

Long. 70° 47' W,

Time of day, *3.30* ; of tide,

State of sky, *Clear*

Temperature of air, *73°*

" surface of water, *67°*

" at depth of *5* fathoms, *64°*

" of bottom, *49.5°*

Depth, in fathoms, *30.*

Nature of bottom, *Sand*

Direction of ~~surface current~~ ^{*wind*} *S.W. force 3.*

Force of ~~surface current~~ ^{*drift*} *S. 1/2 m.*

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,

988.

REMARKS.

Not much came up.

✓
TEMPERATURE RECORD.

Instrument used, *Trawls,*
Current number of observation, *989*
Date, *Sept. 7, 1881*
Locality, *off Roman's sand*
Bearings, *Lat. 40° 49' N*
Long. 70° 47' W
Time of day, *3.57* ; of tide,
State of sky, *clear*
Temperature of air, *73°*
" surface of water, *67°*
" at depth of *5* fathoms, *64°*
" of bottom, *49.5°*
Depth, in fathoms, *30,*
Nature of bottom, *sand*
Direction of surface current, *with drift S.W. force 3,*
Force of surface current, *S. 3/4 W,*
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,

989,
REMARKS.

A large haul.

Echinarachnius parma very abdt

Pecten tenuicostatus, very abdt, very large

Asterias vulgaris,

Septasterias cincta,

Corymorpha

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *990*
 Date, *Sept. 7, 1881*
 Locality, *off Roman's Land*
 Bearings, *Lat. 40° 44' N*
 Long. 70° 47' W
 Time of day, *5:05 PM*; of tide,
 State of sky, *Clear*
 Temperature of air, *71.5°*
 " surface of water, *66°*
 " at depth of *5* fathoms, *64°*
 " of bottom, *47°*
 Depth, in fathoms, *34*
 Nature of bottom, *S. mud & sand*
 Direction of ^{*wind*} surface current, *N. S. W. force 3*
 Force of ^{*drift*} surface current, *S 1/2 W. 3/4 m.*
 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,

REMARKS.

LEWISVILLE RECORD

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *991*
 Date, *Sept. 7, 1881*
 Locality, *off Norman's Land*
 Bearings, *Lat. 40° 39' N*
 Long. 70° 46' W.
 Time of day, *6.05 AM* of tide,
 State of sky, *Clear*
 Temperature of air, *70°*
 " surface of water, *66°*
 " at depth of *5* fathoms, *64°*
 " of bottom, *47.5°*
 Depth, in fathoms, *34*
 Nature of bottom, *Green mud & sand*
 Direction of ~~surface current~~ ^{wind}, *N. S. W. force 3.*
 Force of ~~surface current~~ ^{drift}, *S. 1/4 W. 1/4 m.*
 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,

REMARKS.

REPRODUCED FROM THE RECORDS

✓
TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *992,*

Date, *Sept. 7, 1881,*

Locality, *off Norman's Land.*

Bearings, *Lat. 40° 33' N*

Long. 70° 45' W,

Time of day, *7.35 PM;* of tide,

State of sky, *clear,*

Temperature of air, *69°*

" surface of water, *65°*

" at depth of *5* fathoms, *63°*

" of bottom, *H 80*

Depth, in fathoms, *36,*

Nature of bottom, *green mud & sand*

Direction of ~~surface current~~, *Wind N, S, W, force 3,*

~~Force of surface current~~, *Drift S, 1/8 mile.*

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,

REMARKS.

LEAVE LINE SECOND

TEMPERATURE RECORD.

Instrument used, *Trawl.*
 Current number of observation, *993*
 Date, *Sept. 7, 1881.*
 Locality, *Off Roman's Land,*
 Bearings, *Lat. 40° 28' N,*
 Long. 70° 44' W,
 Time of day, *8.24 AM* of tide,
 State of sky, *Clear.*
 Temperature of air, *69°*
 " surface of water, *65°*
 " at depth of *5* fathoms, *63°*
 " of bottom, *46.5°*
 Depth, in fathoms, *39.*
 Nature of bottom, *mud*
 Direction of ~~surface~~ ^{wind} current, *N. S. W.*
 Force of surface current, *force, 4.*
 Direction of bottom current, *S. 5/8 mile*
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer,

REMARKS.

LEMBRY-1785 RECORD

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *994.*
 Date, *Sept. 8, 1881.*
 Locality, *off Block Ids,*
 Bearings, *Lat. 39° 40' N*
 Long 71° 30' W,
 Time of day, *4.50 am*; of tide,
 State of sky, *Clear,*
 Temperature of air, *72°*
 " surface of water, *68°*
 " at depth of *5* fathoms, *69°*
 " of bottom, *40, 5'*
 Depth, in fathoms, *368,*
 Nature of bottom, *mud*
 Direction of ~~surface current,~~ *wind N, N, W, force 3,*
 Force of surface current, *drift N, W by W 1/2 W. 2 1/2 m.*
 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,

994-

REMARKS.

very
Large Specimen of
Alloposus,

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *995*
 Date, *Sept. 8, 1881.*
 Locality, *Off Block Id*
 Bearings, *Lat. 39° 40' 30" N*
 Long. 71° 31' W.
 Time of day, *6.32 a.m.* of tide,
 State of sky, *partly cloudy, hazy,*
 Temperature of air, *72°*
 " surface of water, *68°*
 " at depth of *5* fathoms, *69°*
 " of bottom, *40.5°*
 Depth, in fathoms, *358.*
 Nature of bottom, *yellow mud & sand,*
 wind
 Direction of surface current, *n. n. w. force 3,*
 drift n. w. by w. 1/2 w. 1/2 m.
 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,

REMARKS.

LEWELLYN BECOMB

TEMPERATURE RECORD.

Instrument used, *Rake Dredge*
 Current number of observation, *996*
 Date, *Sept, 8. 1887*
 Locality, *Off Block Id*
 Bearings, *Lat. 39° 41' N,*
 Long. 71° 31' 37" W.
 Time of day, *7.35; of tide,*
 State of sky, *partly cloudy*
 Temperature of air, *75°*
 " surface of water, *67.5°*
 " at depth of *5* fathoms, *65°*
 " of bottom, *40°*
 Depth, in fathoms, *346*
 Nature of bottom, *yellow mud sand*
 Direction of ~~surface~~ *mid* current, *N. N. W.*
 Force of surface current, *force, 3.*
 Direction of ~~bottom~~ *drift* current, *N. W. 1/8 m.*
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer,

REMARKS.

LENEXBYRNE RECORD

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *997*
 Date, *Sept, 8, 1881.*
 Locality, *off Block Id.*
 Bearings, *Lat. 39° 42' N,*
Long. 71° 32' W.
 Time of day, *9.03 AM*, of tide,
 State of sky, *partly cloudy,*
 Temperature of air, *75°*
 " surface of water, *67.5°*
 " at depth of *5* fathoms, *65°*
 " of bottom, *40°*
 Depth, in fathoms, *335.*
 Nature of bottom, *yellow mud*
 Direction of ~~surface~~ current, *wind N. E.*
 Force of surface current, *force . 3.*
 Direction of ~~bottom~~ current, *Drift - N. by W. 1 mile*
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer,

REMARKS.

LEARNER'S RECORD

✓

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *998.*

Date, *Sept. 8. 1881.*

Locality, *Off Block Id.*

Bearings, *Lat. 39° 43' N*
Long. 71° 32' W,

Time of day, *10.34* of tide,

State of sky, *hazy.*

Temperature of air, *74°*

“ surface of water, *68°*

“ at depth of *5* fathoms, *63°*

“ of bottom, *40.*

Depth, in fathoms, *302.*

Nature of bottom, *green mud.*

Direction of ~~surface~~ ^{*wind*} current, *E N, E,*

Force of ~~surface~~ ^{*4*} current, *4*

Direction of ~~bottom~~ ^{*drift*} current, *N. 1/4 W.*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

BOOKS RECEIVED

✓
TEMPERATURE RECORD.

Instrument used, *Rake Dredge,*
Current number of observation, *999.*
Date, *Sept. 8, 1887,*
Locality, *Off Block Id,*
Bearings, *Lat. 39° 45' 13" N*
Long. 71° 30' W,
Time of day, *11.48 A.* of tide,
State of sky, *hazy,*
Temperature of air, *73°*
" surface of water, *68°*
" at depth of *5* fathoms, *63°*
" *200 fms.* of bottom, *42°*
Depth, in fathoms, *266,*
Nature of bottom, *green mud,*
Direction of surface current, *E. N. E.*
Force of surface current, *force 4,*
Direction of bottom current, *drift N. N. W. 3/4 W.*
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

104

TEMPERATURE RECORD

TEMPERATURE RECORD.

1000-1024 'Lookout' ^{see}

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,

REMARKS.

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Trawl

Current number of observation,

1025

Date,

Sept. 8, 1881.

Locality,

Off Block Id

Bearings,

Lat. $39^{\circ} 49' N$
 Long. $71^{\circ} 25' W$.

Time of day, 1.05 PM, of tide,

State of sky,

Clear

Temperature of air,

71°

"

surface of water,

69°

"

at depth of 5 fathoms,

68°

"

of bottom,

45.

Depth, in fathoms,

216.

Nature of bottom,

Green mud

Direction of surface current,

drift N. E. by E.

Force of surface current,

force, 4.

Direction of bottom current,

drift N. 1/4 E. 1 mile.

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *1026.*
 Date, *Sept. 8, 1881.*
 Locality, *Off Block Id.*
 Bearings, *Lat. 39° 50' 30" N*
Long. 71° 23' W.
 Time of day, *2.55 P.M.* of tide,
 State of sky, *Clear.*
 Temperature of air, *69°*
 " surface of water, *69°*
 " at depth of *5* fathoms, *68°*
 " of bottom, *47.5*
 Depth, in fathoms, *182.*
 Nature of bottom, *green mud*
 Direction of ~~surface current~~ *wind E. N. E.*
 Force of surface current, *force 5.*
 Direction of ~~bottom current~~ *drift N. by E. 1/2 W.*
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer,

REMARKS.

Lined area for handwritten remarks.

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TEMPERATURE RECORD.

Instrument used, *Double Trawl*
 Current number of observation, *1027,*
 Date, *Sept. 14, 1887*
 Locality,
 Bearings, *Lat. 40° 00' 00" N,*
 Long. 69° 19' W.
 Time of day, *7, 23 am*; of tide,
 State of sky, *Clear*
 Temperature of air, *61.*
 " surface of water, *65*
 " at depth of *5* fathoms, *66.*
 " of bottom, *48, 5*
 Depth, in fathoms, *93.*
 Nature of bottom, *fine sand*
 and
 Direction of ~~surface current,~~ *E. N. E. force 3,*
 drift
 Force of surface current, *N. 3/4 mile*
 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,

1027,

REMARKS.

Almost a water haul,
Brought up a few fish,
and a few invertebrates
from bottom. Net
covered with large
Salpae. Wings had
a few copepods and
large Salpae.

TEMPERATURE RECORD.

Instrument used, *Double Beam Trawl*
 Current number of observation, *1028*
 Date, *Sept. 14, 1881,*
 Locality,
 Bearings, *Lat. 39° 57' N*
Long. 69° 17' W.
 Time of day, *9:01 am* of tide,
 State of sky, *Clear*
 Temperature of air, *66.5*
 " surface of water, *66.*
 " at depth of *5* fathoms, *66*
 " of bottom, *41.*
 Depth, in fathoms, *410*
 Nature of bottom, *Yellow mud*
 Direction of ~~surface~~ *wind* current, *N. E. force 3.*
 Force of surface current, *Drift - N. N. E. 1/2 W.*
 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,

1028,

REMARKS.

This haul was over
an hour coming up,
on acct of the engine being
unable to reel it in.
By the motion of the ship
it was allowed to rise
and sink by the roll
and at times it was
bowed thro' water to
clear of some of its
contents,