

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

yr. 1898
Numbers 1978 to 6027.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 57 1978
 Date, Nov 4 - 98
 Time of day, 11.22 AM of tide, Commencing ebb,
 Locality, In return river
 Exact position, Buoy no 6. O. P. E.
50 of water may
 Depth, 5 1/4 fathoms
 Nature of bottom, Mud, gravelly
 Dredging instrument used, 7 foot beam trawl
 Direction of drift, N. N. E.; distance, 1/2 mile
 Temperature of air, 61° Fah therm. No., 7397
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, ~~1.022~~ 1.022
 Density at surface, 1.022 temp., 11.8
 " at depth of fathoms, "
 " at bottom, 1.022 " 11.2
 Number of salinometer, 7104
 Barometer reading, 30.47
 State of sky, Blue
 Direction of wind, N.; force, 2
 Rain, no
 Direction of surface current, 0; force, 0
 " of bottom " : force,
 Name of vessel, U. S. F. C. S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, St. Comm
Lt. Comdr. U. S. Navy
 Name and position of observer,
H. M. Milligan
Pharmacist

- 1 *Chloris* *romana*
 2 *Milvina* *flavida*
 1 window pane "
Microciona *purpuris*
 1 young sea urchin
 Hybrid in front plentiful
 Co.
 1 Blue crab
 small *Amur* *viridata* few
Catina few
E. pollicaris several
 " *longicauda*
Anomia - several
 Few *Polia* *mutica*
Orapidula *forincata* numerous
 " *plana* - common
Bryozoa plentiful
 Dead shells of *Cyclotyerus*
Fulgur, *Venus*, *Mytilus*
Argus, *Myxina*, *Capridula*
Anomia, *L. heros*, *Littorina*
Littorina
 Few dead *Chloris* eggs
 Few *terophora*
Lepidodermis, *Panopaea*
Balanus, *Hydractinia*
Scapharca

Trawls were hauled in from
3 1/4 to 9 1/2 fathoms

613

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. *52-1979*

Date, *Nov 4 - 98*

Time of day, *11.50 am*; of tide, *1/2 hour of ebb.*

Locality, *In Sound near*

Exact position, *Berry no 8 300 yards*
N x N of fast

Depth, *1/2 fath*

Nature of bottom, *Same as before*

Dredging instrument used, *7 foot beam trawl*

Direction of drift, *N.N.E*; distance, *5/8 mile*

Temperature of air, *61°* therm. No., *7397*

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, *1.022* temp., *11.5°*

“ at depth of fathoms, “

“ at bottom, *1.022* “ *12.0°*

Number of salinometer, *7104*

Barometer reading, *30.45*

State of sky, *Blue*

Direction of wind, *P*; force, *2*

Rain, *no*

Direction of surface current, *no perceptible*; force, “

“ of bottom “; force, “

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

Service to which attached, *Fish Commission*

Name and rank of commanding officer, *Lt. Comdr*
R. G. Savenkov. USNavy

Name and position of observer, *J. P. H. [unclear]*
Thomson [unclear]

NOTES RELATING TO STATION NO. 52

Practically the same as 51
with addition of 2 large myriapods
1 egg string of *Dytiscidae*
Lebia hydrophil.
2 large 7 in *Stenobothrus*
Crematogaster
Mulhensia
Enicospilus
Panurginus

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 53 1980
 Date, Nov. 27 1898
 Time of day, 7.30 pm; of tide, 3 hours of ebb
 Locality, Narragansett Bay
 Exact position, Outer Light
NE, x N, 7.5 miles
 Depth, 7 fathoms
 Nature of bottom, Mussel bar
 Dredging instrument used, 7 fath beam trawl
 Direction of drift, D. 3/4 E.; distance, 5/8 mile
 Temperature of air, 56° Fahr therm. No., 7397
 " of surface water, " "
 " at depth of _____ fathoms, " "
 " at bottom, " "
 Density at surface, 1.021 + temp., 13.7°
 " at depth of _____ fathoms, " "
 " at bottom, 1.022 + " 13.8°
 Number of salinometer, 7104
 Barometer reading, 30.40
 State of sky, Blue
 Direction of wind, D. W.; force, 3
 Rain, No
 Direction of surface current, D. x W.; force, 1 knot
 " of bottom " " ; force, "
 Name of vessel, U. S. F. C. S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt Comdr
R. H. Sarsaparilla, US Navy
 Name and position of observer, J. M. Milligan
Pharmacist, US Navy

About 10 bushel of very tetan.
 large Cancer irrorata, beautiful
 Mulin flounder. few
 of Lake Squinell

Skate - *irinacea*. few,
 1 Windowpane
 1 P. Carolina
 1 *orbacia* (uncommon)

a bucket very large Star. & in. *Justin*
 The usual fauna of the mussel bed
Lepidomolus, *Palpebris*.

Prinotheca, a few dead shells
Callista crassa, 1 blue crab,
Bucellatula cancer irroratus, mostly males
 Flats very broad, full & fat
Glycophis

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 54 - 1981
 Date, Nov. 4/98
 Time of day, 2:50 ; of tide, 3 1/2 hours of ebb
 Locality, Massachusetts Bay
 Exact position, Dutch Field Pt
N x E 3/4 E. 1.87 miles away
 Depth, 7 1/4 fathoms.
 Nature of bottom, Rocky.
 Dredging instrument used, 7 foot beam trawl
 Direction of drift, S. 3/4 W. ; distance, 1/2 mile
 Temperature of air, 56 Fahr therm. No.,
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.0217 temp., 12.8°
 " at depth of fathoms, " "
 " at bottom, 1.022 " 13.7°
 Number of salinometer, 7104
 Barometer reading, 30.40
 State of sky, Blue - hazy
 Direction of wind, S.W. ; force, 3
 Rain, no
 Direction of surface current, S.W. ; force, skirt
 " of bottom " ; force,
 Name of vessel, U.S.F.C.S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, St. Comdr,
R.H. Davenport, U.S. Navy,
 Name and position of observer,
W. J. McElroy
Assistant. U.S.N.

1 Sculpin

1 Okata Eryosacca

Several small heron

Few small flounders.

2 bushel mussels & shells.

Quantity of kelp.

Lepidodotus

Capriola plana & fornicata

~~Callista~~

1 young sea robin

Callista Compta, dead shell

1 blue crab

100 young *Canem innovatus*1 young " *toralis*1 *Edotia innovata*

10 Large flats 2 to 9 in

1 purple " (?)

1 green sea urchin

Rev. *Sygnathus*, *Cume*young *Buccina*E. *Longicauda*Gammarellous *Onchoc*

Young itake squirrel

*Paralipus*Bryozoa, *Obelia**Lanternaria*, hydroid in sameNudibranch (sp.?) *Gammarellous**Spiridia*, few small pieces *ammare*

clam

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 55 - 1987
 Date, Nov 4 - 98
 Time of day, 3.15 pm ; of tide, 4 hours of ebb
 Locality, Nanafanua Bay
 Exact position, Beaver Tail light.
 D. E x E 1/4 E - 67 yards long
 Depth, 9 1/2 fathoms
 Nature of bottom, sandy
 Dredging instrument used, 7 foot beam trawl
 Direction of drift, D. W. ; distance, 3/8 mile
 Temperature of air, 55° Fahr therm. No., 7397
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.022 temp., 13.6°
 " at depth of fathoms, " "
 " at bottom, 1.023 " 14°
 Number of salinometer, 7104
 Barometer reading, 30.40
 State of sky, blue hazy
 Direction of wind, D. W. ; force, 3
 Rain, no
 Direction of surface current, D. W. ; force, 1 knot
 " of bottom " ; force, "
 Name of vessel, U. S. F. C. S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt. Comdr
 R. G. Sampson USN
 Name and position of observer, H. Gilliam
 Pharmacist, USN

- Several large squids
- 3 Skates: *Squalus* - 1 doubtful
- a few young *Conus borealis*
- Quality of mussels -
- a quantity med. sized empty per clams
- boiled by drills
- 1 *Stomatopoda* flower
- 1 *Stomatopoda* "
- 1 young sculpin
- 1 " *Sea scorpion*
- Palaemonetes*
- E. Bernhardtus*
- Aycetypus*
- Limnoria heros*
- Lot of kelp
- 1 live sea clam
- Few crabs
- Idotea* numerous
- Gammarus ornatus*
- 1 pipe fish
- E. longicauda*
- 1 *Pandalus*
- E. Anulipes*
- L. tricornatum*
- Tritia* live + dead
- 1 mudbranch

No skin fish

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

56 - 1983

Station No. *56 - 1983*

Date, *Nov. 4 1898*

Time of day, *5.45 pm*; of tide, *nearly low water*

Locality, *Narragansett Bay*

Exact position, *Search Light light*

N. & E.

Depth, *14 3/4 fathoms*

Nature of bottom, *Pebbly sand*

Dredging instrument used, *7 furrow trawl*

Direction of drift, *P. W.*; distance, *3/4 mile*

Temperature of air, *53°* therm. No., *7397*

" of surface water, " "

" at depth of fathoms, " "

" at bottom, " "

Density at surface, *1.022* temp., *13°*

" at depth of fathoms, " "

" at bottom, *1.022* " *13.3°*

Number of salinometer, *7104*

Barometer reading, *30.28*

State of sky, *1 blue haze*

Direction of wind, *P. W.*; force, *3*

Rain, *no*

Direction of surface current, *P. W.*; force, *3/4 knots*

" of bottom " " ; force, " "

Name of vessel, *Fish Hawk*

Service to which attached, *Fish Commission*

Name and rank of commanding officer, *St. Amos*

Name and position of observer, *W. S. ...*

W. S. ...

NOTES RELATING TO STATION NO. 56

56

1 *Schizotha* (?)

Skate - *Erismacea*

16 *Pteronotus* *hawaii*

16 *W. nitens* *flomides*

2-4 spot "

flat young sea robin

" " *Schizotha*

" *paucialus* *callosata*

Few dead shells, 1. *Inconota*

Cyprina islandica, *Tritia*, *Cantharus*

Cyprina, *Anomia*, *Cantharus*

Cantharus borealis 1 large

3 star fish *Ferussacii* - 1 1/2", 3", 6"

About 50 maroon stars 1/2" to 3"

2 doz purple stars, varying in

color from very pale to light red,

dark red + purple

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 57 - 1984
 Date, Nov 4 - 1898
 Time of day, 4:30 pm; of tide,
 Locality, Manassett Bay
 Exact position, Castle Hill light
E 1/2 N. 87 miles near
 Depth, 17 1/2 fathoms
 Nature of bottom, Rocks & sand
 Dredging instrument used, 7 feet beam trawl
 Direction of drift, S. W. x S.; distance, 3/4 mile
 Temperature of air, 51° - therm. No., 7397
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.0214 temp., 12.5°
 " at depth of fathoms, " "
 " at bottom, 1.023 " 13°
 Number of salinometer, 7104
 Barometer reading, 30.38
 State of sky, Blue haze
 Direction of wind, S. W.; force, 3
 Rain, No
 Direction of surface current, 0; force, 0
 " of bottom " " ; force, " "
 Name of vessel, U. S. F. C. S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, St. Ensign
R. G. Sawaport, USN
 Name and position of observer, A. M. Sullivan
Midshipman, USN

NOTES RELATING TO STATION NO. 57

3 or 4 shells - 1/1 (miller)
 several small flowers
 sponges, etc.
 few young sponges (?)
 .. Pandanus
 .. Labinia

Few of tall with oblique byssus
 E. pollicaris few in
 l. heros shells

1 ~~has~~ cyprina islandica &
 a few dead shells

Part of shell of Buccinum undatum

E. longicaulus littorea littorina

1-3 in star - Forbes -

1-5 in " purple, light in color

3 maroon star. 1-1 1/2 or 2 in

1-E. B. schandus

Longicaulus numerous
 shell, pupura lapidis
 Artate undata

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 58 - 1985
 Date, Nov. 9th 1898
 Time of day, 11.10 am; of tide, 1/4 h of flood
 Locality, Wt Hope Bay
 Exact position, Pointe Army Lt. H.
N. 1/2 S. 2.25, mag.
 Depth, 4 1/4 fathoms
 Nature of bottom, Muddy-
 Dredging instrument used, 7 ft beam trawl
 Direction of drift, N x W.; distance, 5/8 mile
 Temperature of air, 58° Fahr therm. No., 7397
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.019 temp., 11.3°
 " at depth of fathoms, " "
 " at bottom, 1.022 temp., 12.7°
Surface 7049
Bottom 7104
 Number of salinometer, 30 - 28
 Barometer reading, 30 - 28
 State of sky, Blue - Cloudy & hazy
 Direction of wind, Calm; force, 0
 Rain, No.
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, U.S.F.C.S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt. Comdr
R.B. Scurry, USNavy
 Name and position of observer,
J.D. McElhiney
Thomson's USNavy

- Liptycus* eggs.
Eupadulus longicauda
Clidopera, live & dead.
Euplemma, live & dead
Yoldia - live and dead
 1 skate (*serinacea*)
Panopeus
Libinia
 2 of Star-fish - *Forbesii* ^{2 in to} _{6 inches}
Crangon, few.
Petrolia - dead shell.
Mulinca -
Mucula.
Callista Conocya live & dead
Thracia.
L. truncata
Pycnotypus - 1 live.
 numerous dead shells.
Tritia.
 claw of squilla.
Hydractinia
 Shell *modiola plicatula*

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *59* *1986*
 Date, *Nov. 9th 1898*
 Time of day, *11.35* ; of tide, *1 1/2 h of flood*
 Locality, *Mt. Hope Bay*
 Exact position, *Pointe Ferry St. Anne*
S. W. x N. 1/2 W. 1.75 miles mag
 Depth, *4 3/4*
 Nature of bottom, *Muddy with gravel*
 Dredging instrument used, *7 foot beam trawl*
 Direction of drift, *W x S 1/2 W* ; distance, *1/2 mile*
 Temperature of air, *60° Fah* therm. No., *7397*
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, *1.019* temp., *11.5*
 " at depth of fathoms, " "
 " at bottom, *1.021*
 Number of salinometer, *Surface 1049*
Bottom 1044
 Barometer reading, *30.24*
 State of sky, *Blue, Cloudy*
 Direction of wind, *S. W* ; force, *1*
 Rain, *no*
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *U. S. F. C. S. Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *Dr. Comdr*
R. G. Sawyers, USN
 Name and position of observer, *J. S. Milligan*
Pharmacist, USN

Capridula formicata, live & dead
Serpula

Membranipora,
empty shells

Cyrtoporus - few -
Crangon.

Hydractinia.

Hydroids

Paruspongia

Clidropora

Aspina.

E. Pollicaris.

Mytilus dead shells.

Capridula flava live & dead

Scapharca.

Tritia.

E. Longicaulus

Neritopa

Littorina littorea

Few Rock shells (?)

Callista Anversa - dead shells

about 100 Star fish Forbesii, Size of 5-8

13 Starfish similar

3 Arrow Penn

& Cancerirrorata.

Neroids

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 60 1907
 Date, Nov. 9th, 1898
 Time of day, 11.55; of tide, 2 h. of flood
 Locality, Mt. Hope Bay
 Exact position, Pointe à Pitre St. Anne
N. x S. 75 miles, way.
 Depth, 6 1/4 fathoms
 Nature of bottom, Mussel bed.
 Dredging instrument used, 7 feet beam Trawl
 Direction of drift, S. by E.; distance, 5/8 mile
 Temperature of air, 62° therm. No., 7397
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.019 temp., 12°
 " at depth of fathoms, "
 " at bottom, 1.020 + " 13°
 Number of salinometer, Surface 7049
Bottom 7104
 Barometer reading, 30.43
 State of sky, Blue, light clouds
 Direction of wind, S. W.; force, 1
 Rain, no
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, U. S. F. C. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt. Comdr
R. S. Sarsupurr, USNavy
 Name and position of observer,
J. M. McIligan,
Pharmacist, USN

8 Bushes mytilus.

20 My Anctis flocculenta

Few window paper

+ 100 Asterias forbesii, nearly all large ones 6 to 8 in, a few 3 to 4 in
Few Libinia

Eggs string pyrosoma

Several clusters Chamaea, rather short + broad

2 R. erinacea

Lepidodermis, Crispicula fornicata

Panopaea, several large canes invertebrae, few Orangium, Tritia

Many mussels + mussel shells

Rock wh. (1) fragment copper sponge

Found caperid, also our counter
To be taken over again

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 61 1988
 Date, Nov. 9th 1898
 Time of day, 1.25 pm; of tide, 3/4 h. of flood
 Locality,
 Exact position,
 Depth, 14 3/4
 Nature of bottom,
 Dredging instrument used, 7 fms beam trawl
 Direction of drift, ; distance,
 Temperature of air, 60 therm. No.,
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.0205 temp., 17.5
 " at depth of fathoms, "
 " at bottom, 1.020 7000 7100 14.0
 Number of salinometer,
 Barometer reading, 30.20
 State of sky, Clear blue
 Direction of wind, N.W.; force, 1/2
 Rain, no
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, U.S.F.C. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Dr. Comdr
R. P. Davenport, USNavy
 Name and position of observer, J. W. Sullivan
Pharmacist USN

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. *61* — *1989*
 Date, *Nov. 9th 1898*
 Time of day, *2 pm.*; of tide, *4 hr. of flood*
 Locality, *Mr. Hope Bay*
 Exact position, *Bristol Ferry Pt. House*
N.E. x N. 50 miles near
 Depth, ~~*15*~~ *15 fath*
 Nature of bottom, *Sandy*
 Dredging instrument used, *flat beam trawl*
 Direction of drift, *S.W. x W*; distance, *1/2 miles*
 Temperature of air, *62* therm. No., *7397*
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.021* temp., *11.9*
 " at depth of fathoms, "
 " at bottom, *1.021* " *13.6*
 Number of salinometer, ~~*7047*~~ *7104*
 Barometer reading, *30.20*
 State of sky, *Clear blue*
 Direction of wind, *N.W.*; force, *1/2*
 Rain, *No*
 Direction of surface current, ; force,
 " of bottom " ; force,
 Name of vessel, *U. S. F. C. S. Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *Lt. Comdr*
R. G. Overcupper, U.S. Navy
 Name and position of observer,
J. D. Milligan
Pharmacist, U.S. Navy

NOTES RELATING TO STATION NO. 61

- Caudofoveata*, few
a few *Mytilus*, valves
1 *Callinectes*
Few *Panopeus*
Few *Cancer* numerous
Lepidodermis
Fritia
Anachis
Scrap of *Chelma*
Stypholites (?)
Bygone crabs
Star fish
1 Brittle Star
5 *Forbesii* 1 - 1 in 3 - 3 1/2 in
 4 in
1 *Corbulla*
Few *Yung* common here
1 *Silva* (base, ?)
1 *Laminaria*

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. *63 - 1998*

Date, *Nov. 9th 1898*

Time of day, *7.40* ; of tide, *4 3/4 h of flood*

Locality, *Narragansett Bay*

Exact position, *Hog Island Shoals*

N. 17 3/4 W. 25 mile mag.

Depth, *15 fathom*

Nature of bottom, *shelly*

Dredging instrument used, *7 feet beam trawl*

Direction of drift, *S. W. 1/2 W.* ; distance, *1/2 mile*

Temperature of air, *60 -* therm. No., *7397*

" of surface water, " "

" at depth of fathoms, " "

" at bottom, " "

Density at surface, *1.020* temp., *12*

" at depth of fathoms, " "

" at bottom, *1.021 +* " *14.1*

Number of salinometer, *7104*

Barometer reading, *30.19*

State of sky, *Clear blue - light clouds*

Direction of wind, *N. W.* ; force, *1/2*

Rain, *no*

Direction of surface current, ; force,

" of bottom " ; force,

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

Service to which attached, *Fish Commission*

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

R. S. Davenport, USNavy

Name and position of observer, *J. H. ...*

NOTES RELATING TO STATION NO. 62

1978 *Asterias fisheri* 4 in to 6 in
Squid-like base
Eels
Ardacia
Mytilus
Paralichthys
Chalina
Maki erinacea
Bothus maculatus
Callinectes
Litmus
Cancer irroratus
Cribrella
Nereis
Copris flava
E. Pollicaris
Netidicum

Rocky bottom, dredge
broken to pieces,

643

RECORD OF DREDGING, ^{11.37}
TEMPERATURE AND DENSITY, ^{10.30}
_{7.17}

Station No. 63 1991

Date, Nov 12 1898

Time of day, 10.20 ; of tide, 4³/₄ hours of ebb.

Locality, Between Elisha ledge & East Sald

Exact position, Seakonnet pt. light house

N. x N. ¹/₄ N. 1.37 miles mag.

Depth, 8 ¹/₂ fathoms

Nature of bottom, Rocky

Dredging instrument used, Dredge

Direction of drift, N x S ; distance, 1/2 mile.

Temperature of air, 38° Fahr therm. No., 7397

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, 1.023 + temp., 11.4 ^{0.c}

“ at depth of fathoms, “

“ at bottom, 1.023 “ 10.8 ^c

Number of salinometer, 7104

Barometer reading, 30.25

State of sky, Blue ~~sky~~

Direction of wind, N.N.W ; force, 2

Rain, No

Direction of surface current, No perceptible ; force,

“ of bottom “ ; force,

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Dr. Comdr

R. G. Sawyer USNavy

Name and position of observer, J. H. Milligan
Pharmacist USNavy

NOTES RELATING TO STATION NO. 63

A small tortoise brought up
in net in inner harbor
off point of Commercial wharf

Dredge was torn by
rocks and lost during
this haul.

Very rocky bottom. Dredge caught & torn.

643

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 643 - 1994
 Date, Nov. 12, 1898
 Time of day, 10.35; of tide, 5 hours of ebb
 Locality, ~~Patuxent~~ Mar. Schuyler Ledge
 Exact position, Seakonnet pt. lights
N.E. x E. $\frac{3}{4}$ E. 1.25 miles mag.
 Depth, 11 fathoms
 Nature of bottom, Rocky & sandy
 Dredging instrument used, Dredge
 Direction of drift, S.W. $\frac{1}{2}$ W.; distance, $\frac{3}{8}$ mile
 Temperature of air, 38° Fahr., therm. No., 7397
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.023, temp., 11.8° C
 " at depth of fathoms, " "
 " at bottom, 1.023, " 12.0° C
 Number of salinometer, 7104
 Barometer reading, 30.27
 State of sky, Blue
 Direction of wind, N.N.W.; force, 3
 Rain, No
 Direction of surface current, No perceptible; force, "
 " of bottom " " ; force, "
 Name of vessel, U.S.F.C.S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt. Comdr
R. G. Sawyer, U.S.N.
 Name and position of observer,
J. W. McIligan
Commissioner, U.S.N.

NOTES RELATING TO STATION NO. 64

- Mostly sand.
Numerous anemones + tubes
Few *Urosalpinx*
Astarte costarica small.
Diastylis sp.
Some small sand dollars
& *Forcipiger* sp.
Tritia
Mactra shells small.
1 many *Cardium summatum*
1 *L. pyralina*
1 *Cranium*
1 Parasitic isopod
1 *Anolis*
a few broken shells *Mytilus* etc

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 665 - 1993
 Date, Nov. 12 1898
 Time of day, 11 am; of tide, 5 1/2 h of ebb.
 Locality, Mud of Schuyler ledge
 Exact position, Yeakonnet Point ledge
N. x E. 3/4 E. 75 of mile mag.
 Depth, 9 1/2 fathoms
 Nature of bottom, Rocky & sandy
 Dredging instrument used, dredge
 Direction of drift, N x N 1/4 N; distance, 1/2 mile
 Temperature of air, 38° Fah therm. No., 7397
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.023 temp., 11.3°
 " at depth of fathoms, " "
 " at bottom, 1.023 + " 17.1°
 Number of salinometer, 7104
 Barometer reading, 30.23
 State of sky, blue
 Direction of wind, N. W; force, 3
 Rain, no
 Direction of surface current, S x N; force, 1
 " of bottom " " force, "
 Name of vessel, U. S. F. C. S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, St. Commr
R. S. Barnhart. USNavy
 Name and position of observer, J. H. McIlwain
Commander. USNavy

Brook bridge fauna

NOTES RELATING TO STATION NO. 65

Astarte castanea

Cribrella

& Purple stars.

Lepidostoma

Seminaria with Rhynchonella

Murchisonia

Murchisonia

Trochus

Few sand dollars small

Pelina.

Scraps of sulphur, sponge

Sp. of tubes Diopatra.

Shells of astarte, Capridula.

Peripala.

Maclurea.

Evening primrose

E. Longicaulis

Broken shells & gravel

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 66 — 1996
 Date, Nov, 4, 1898
 Time of day, 11.20 ; of tide, 5¹/₂ h of ebb.
 Locality, Mouth of Peakonnet River
 Exact position, Seakonnet point light
E ¹/₂ N. .75 mile mag.
 Depth, 11¹/₂ fathoms
 Nature of bottom, Rcky.
 Dredging instrument used, dredge
 Direction of drift, N x N ; distance, 3¹/₈ mile
 Temperature of air, 38° Fahr, therm. No., 7397
 “ of surface water, “
 “ at depth of fathoms, “
 “ at bottom, “
 Density at surface, 1.023 temp., 11.9° C
 “ at depth of fathoms, “
 “ at bottom, 1.023 “ 11.2° C
 Number of salinometer, 7104
 Barometer reading, 30.23
 State of sky, Blue
 Direction of wind, N. W ; force, 3
 Rain, no
 Direction of surface current, S x W ; force, 1¹/₈ knots
 “ of bottom “ ; force,
 Name of vessel, U. S. F. C. S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Dr. Comdr
P. G. Sargent, USNavy
 Name and position of observer,
J. D. Kellogg
Pharmacist, USNavy

NOTES RELATING TO STATION NO. 66

Few scraps of chalcids

" some "dollar"

C. Pollicaris

Fupa of dipterid

Astarte

Cyclocardia

Pyroga

Pyroga

Hydractinia

Capnodula plana

Scrap of Annumarum pellucidum

Neventa shell,

Young fungus

L. tricornata

Marston

Anachis

Tritia

F. forficatus

Young cancer breaks

Crangon

Anelipes

Few Anelids

Reversaloid truncatis

" higher col " att. to stone

Beam of trawl barely
beam - very broken

643

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 67 - 1995
 Date, Nov 14 - 1898
 Time of day, 11.45 ; of tide, Low water
 Locality, Mouth of Seakonnet River
 Exact position, Seakonnet Pt. Light
S. 1/2 E. 75 mile mag.
 Depth, 7 fathoms
 Nature of bottom, Rocky
 Dredging instrument used, 7 fur beam trawl
 Direction of drift, N. N. W. ; distance, 3/8 mile
 Temperature of air, 39° Fahr therm. No., 7597
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.023 temp., 10.8°
 " at depth of fathoms, " "
 " at bottom, 1.023 + " 11°
 Number of salinometer, 7104
 Barometer reading, 30.22
 State of sky, Blue
 Direction of wind, N. W. ; force, 3
 Rain, no
 Direction of surface current, no current ; force, "
 " of bottom " " ; force, "
 Name of vessel, U.S.F.C.S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, St. Anson
R. G. Davenport, USNA
 Name and position of observer, H. M. Sullivan
Pharmacist, USNA

NOTES RELATING TO STATION NO.

3 *Sonnata*

1/2 pc. *Sand dollar*

1 *Wright flower*

1 *Young squinid tube*

Tortia

Metridium

Cragon few

Cumia several

E. Siphonaria

Spirorbis

Red algae

1 *Hydrozoa*

Bryozoa

Fus. funicularis

L. tuberculata

Fus. Isopods - *Gr. detrus. sp.*

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

100
11.37
1.023

Station No. ~~68~~ 68 - 1996

Date, Nov. 14 1898

Time of day, 12.05 ; of tide, 1/4 h of flood

Locality, East Side of Beakumet River

Exact position, Beakumet Pt Light
S. 3/4 W 1/2 mile mag.

Depth, 6 fath.

Nature of bottom, Rocky

Dredging instrument used, Trawl

Direction of drift, S. E 1/4 E ; distance, 1/4 mile

Temperature of air, 40° Fahr therm. No., 7397

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, 1.023 temp., 11.0° C

“ at depth of fathoms, “

“ at bottom, 1.023 + “ 11.3° C

Number of salinometer, 7104

Barometer reading, 30.77

State of sky, Blue

Direction of wind, N. W ; force, 3

Rain, no

Direction of surface current, No perceptible ; force,

“ of bottom “ ; force,

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Dr. Comdr
R. G. Savenport, U.S.N.

Name and position of observer, W. H. McElligan
Pharmacist, U.S.N.

NOTES RELATING TO STATION NO. 61

Red algae + Chondrus + Sargassum
 Thick with Spongia + Bryozoa
 Some Corallines
 7 Raci Echinaciae -
 Few small cucumers.
 Few Echinorachium. Metridium 1
 " small Corbulla.
 1 small chiton rubra.
 Few Crustaceans.
 Leptochirus albidum
 Few Tritia
 Balanus.
 C. pinnata.
 Amphitrite ornata.
 Pausippus
 E. longicaepus in l. tuberosa
 Anachis sp. few
 Spongia
 L. tuberosa
 Diastylus sp.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. ~~69~~ 69 — 1997
 Date, Nov 16 - 1891
 Time of day, 1.20 ; of tide, $1\frac{3}{4}$ h of flood
 Locality, On West side Beakommett Run
 Exact position, Beakommett Pt. Light
 S. x E. $\frac{1}{2}$ E. 2.75 miles up
 Depth, 5 fathoms
 Nature of bottom, Hard
 Dredging instrument used, Dredge
 Direction of drift, S. x E. $\frac{1}{2}$ E. ; distance, $\frac{1}{4}$ mile
 Temperature of air, 44° Fahr therm. No., 7097
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.023 temp., 10.8°
 " at depth of fathoms, " "
 " at bottom, 1.020 " 11.0°
 Number of salinometer, 7104
 Barometer reading, 30.720
 State of sky, Blue
 Direction of wind, N. W. ; force, 2
 Rain, no
 Direction of surface current, N. ; force, $\frac{1}{3}$
 " of bottom " ; force, "
 Name of vessel, U.S. F.C.S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt. Comdr
 R. G. Swainson, USNavy
 Name and position of observer, J. D. Killigan
 Pharmacist, USNavy

NOTES RELATING TO STATION NO. 69

Lux nervosa

Few sand dollars.

Egg string of *cyrtopne*.

Gammarids

Littia -

E. longicauda.

Clidiasphaera

Pandalus

Eurosalpinx shell of

L. trivirata.

Mulinca few

Dromia sp.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 70 - 1998
 Date, Nov. 17, 1908
 Time of day, 1:30 ; of tide, $\frac{1}{2}$, 53^m of flood
 Locality, West Side Seakommett River
 Exact position, Seakommett Pt. Light
 S. x E. $\frac{1}{2}$ E 2.37 miles away
 Depth, 6 $\frac{1}{2}$ fathoms
 Nature of bottom, Sand
 Dredging instrument used, dredge
 Direction of drift, S- ; distance, $\frac{1}{2}$ mile
 Temperature of air, 44° Fahr therm. No., 7397
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, 1.023 temp., 10.8°
 " at depth of fathoms, "
 " at bottom, 1.023 " 16.0°
 Number of salinometer, 7104
 Barometer reading, 30.20
 State of sky, Blue
 Direction of wind, N. W. ; force, 2
 Rain, no
 Direction of surface current, W ; force, $\frac{1}{3}$ knot
 " of bottom " ; force,
 Name of vessel, U.S.F.C. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Dr. Comdr
 R. G. Davenport, US Navy
 Name and position of observer, J. W. Murray
 Harwood, US Navy

L. Heros

Number of sand dollars
mactrons

Kelp. Rock med.

Spirorbis

Cladocera

Young *Caecum* *ovovivata*

Capitula plana + *formicata*

shell of *sericea* -

E. longicauda

L. tenebrosa (?)

Bryozoa

Fritia

Astarte castanea

Anthropod feet

Cyprid feet

Gammarus

Chironomus

Few *Urechis* spines

~~*Capitula plana* + *formicata*~~

Few isopods

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. *71 - 1999*
 Date, *Nov 12 - 98*
 Time of day, *1.45*; of tide, *2h of flood*
 Locality, *West side Seacommett River*
 Exact position, *Seacommett Pt. Light*
R. E. 1/2 D. 2 miles mag
 Depth, *8 1/2 fath.*
 Nature of bottom, *Sand & shell*
 Dredging instrument used, *Dredge*
 Direction of drift, *S. W.*; distance, *1/4 mile*
 Temperature of air, *44° Fahr* therm. No., *7397*
 " of surface water, "
 " at depth of fathoms, "
 " at bottom, "
 Density at surface, *1.0220* temp., *11.7° C*
 " at depth of fathoms, "
 " at bottom, *1.023+* " *12.0° C*
 Number of salinometer, *7104*
 Barometer reading, *30.19*
 State of sky, *Blue*
 Direction of wind, *N. W.*; force, *3*
 Rain, *no*
 Direction of surface current, *N. E.*; force, *1/2 knot*
 " of bottom " ; force,
 Name of vessel, *U.S.C.S. Fish Hawk*
 Service to which attached, *Fish Commission*
 Name and rank of commanding officer, *St. Andrew*
R. L. Sargent
 Name and position of observer, *John Allen*
John Allen

NOTES RELATING TO STATION NO. 71

Burster shells of caprellid
Callineta x
Tritia x
Dipulus x
Mastrea.

- 1) Annelid worm
L. limpocarpa
fine Isopods
Pieces of sand dollar
Murchie
Kelp, red algae.
Chironomus.
Scapharca shells.
Spirochaeta
1 young caridean isopod

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 72 — 2000 $\frac{11.37}{2.25}$
 Date, Nov 12-98
 Time of day, 2 pm; of tide, 2h 23^m of flood
 Locality, South of Satchumet Pt.
 Exact position, Seakomet Pt. Light
S. E. x E. — 2.50 miles mag.
 Depth, 7 1/2 fathoms
 Nature of bottom, fine sand & shell
 Dredging instrument used, Dredge
 Direction of drift, N. N. W.; distance, 3/8 mile
 Temperature of air, 44° Fahr therm. No., 7397
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.023 temp., 11.8° C
 " at depth of fathoms, " "
 " at bottom, 1.023 " 11.4° C
 Number of salinometer, 7104
 Barometer reading, 30.20
 State of sky, Blue
 Direction of wind, N. W.; force, 3
 Rain, no
 Direction of surface current, N. E.; force, 1/2 knot
 " of bottom " " ; force, "
 Name of vessel, U. S. F. C. S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, St. Commr
R. G. Davenport, USNA
 Name and position of observer, J. M. Miligan
Pharmacist

NOTES RELATING TO STATION NO. 72

Spirorbis

2 *Truph. sp.*

Few *Crabrella* small

" *Anthropoda*

1 *Cyclocardia* small size

1 *Melobesia* common

Coronella flaudata (?)

Tritia

Anachis

E. longicauda

Cyclocardia borealis small

Fine pond shells & gravel

Red Algae

Few small *Ammonia*

Mactra

6008

643

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 73 - ~~2001~~ ^{2.25} ~~11.27~~ ^{2.28}

Date, Nov. 12-95

Time of day, 2.25 ; of tide, 2¹/₂ h of flood

Locality, off Satchers Beach

Exact position, Beacon Pt. Light
S.E. - 3.75 miles mag

Depth, 5 1/2 fathoms

Nature of bottom, Sandy rocks

Dredging instrument used, 7 ft beam trawl

Direction of drift, N. W. 1/2 W ; distance, 1/2 mile

Temperature of air, 44 Fahr therm. No., 7097

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 11.5 °C

" at depth of fathoms, "

" at bottom, 1.023 + " 11.1 °C

Number of salinometer, 7104

Barometer reading, 30.20

State of sky, Blue

Direction of wind, N.W. ; force, 3

Rain, no

Direction of surface current, No current ; force,

" of bottom " ; force,

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr
R. H. Stapp, USNavy

Name and position of observer,
W. H. Kellogg
Pharmacist Navy

- 3 squirrel hake
- 1 white flounder
- 1 Rain tomcod
- 1 female fathead with eggs
- 1 small balanus
- Algae
- Bryozoa
- Leopards
- 1 young starfish (?)
- Idotea munda
- Canis "
- Caprinus formicatus
- Small amphipod numerous
- Coraline
- a few shells of moderate size
- Limnorea (?)
- Crawfish - numerous
- Aspidochelone
- Cynthia carolinensis
- Trilobite a lot of Algae
- Chondrus
- E. linguiformis in trilobite shell
- 1 young squirrel hake
- 1 pipe fish
- Mammals
- L. tenebrosa (?)

6002

643

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 74 - 2002 240
11.57
303

Date, Nov. 12 - 98

Time of day, 11:40 ; of tide, 3 h. of flood

Locality, off Eastern Point

Exact position, Beaknott Point Light
N. W. x N. 1/2 W. - 3.50 miles away

Depth, 8 1/2 fath.

Nature of bottom, Hard

Dredging instrument used, 7 foot beam trawl

Direction of drift, N. x N. ; distance, 1/4 mile

Temperature of air, 45° Fahr therm. No., 7397

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, 1.023 temp., 11.8°

“ at depth of fathoms, “

“ at bottom, 1.020 “ 11.7°

Number of salinometer, 7104

Barometer reading, 30.20

State of sky, Blue

Direction of wind, N.W. ; force, 3

Rain, no

Direction of surface current, no perceptible ; force,

“ of bottom “ ; force,

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr.
R. G. Danvers, USNavy

Name and position of observer, W. M. McIlwain
Lieut. Comdr. USNavy

NOTES RELATING TO STATION NO. 74

5 *Sonnatia*

1 *P. Carolina*

1 *Balanus*

Ceramium few

Small quantity sea-weed,

and *Boletus* *Yucca*

1 *E. longicauda*

1 *E. Pollicaria*

1 *Chamaecrista* *invalis*

1 *Pandanus*

1 *Bertholletia*

4 *Equinus* *habea*

1 *Winter* *flourensii*

2 *torresiana*

1 *Pelia* *maritima*

1 *Silene* *habea* *young?*

1 *Gammarus*

1 *Hydractinia*

6003

643

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. ~~75~~ - ~~2003~~ ^{3:27} ~~3:45~~

Date, ~~Nov 14 98~~

Time of day, 3 pm ; of tide, 3h. 23^m of flood

Locality, Between Eastern & Ochre Points

Exact position, Light House Point Light
S. E. x E. 1/4 E. 4.75 miles away

Depth, 3 1/2 fathoms

Nature of bottom, Hard

Dredging instrument used, 7 foot beam trawl

Direction of drift, W x S. 3/4 D, distance, 1/2 mile

Temperature of air, 45° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 11.8°

" at depth of fathoms, "

" at bottom, 1.023 " 11.4°

Number of salinometer, 7104

Barometer reading, 30.21

State of sky, Blue

Direction of wind, N.W ; force, 3

Rain, no

Direction of surface current, no current ; force,

" of bottom " ; force,

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr
R. G. Davenport, USNavy

Name and position of observer, J. W. Milligan
Pharmacist USNavy

NOTES RELATING TO STATION NO. 75

Few dead dollars

E. Pollan's

Capripoda formosa

Balanus

E. longicauda

1 Meadow pipe flounder

3 Rana sylvatica

1 young sea robin

1 " silver hake (?)

Nereida

1 live 1 dead L. leuco

Ambly

Alga

Gammarus

Cap. plana

Idotea

Cragon pui

few larvae (probably small)

1 pipe fish

1 tubiculate (?)

anfalus for shells

6004

7.14
10.30
2.44

643

RECORD OF DREDGING,

TEMPERATURE AND DENSITY

Station No. 76 - ~~2006~~ 76

Date, Nov. 14 1898

Time of day, 10.30 am; of tide, 2 1/2 44^m of ebb.

Locality, Near Dutch Sida Harbor.

Exact position, Dutch Sida Harbor Light
N 1/2 E 1-mile away.

Depth, 7 to 10 fathoms

Nature of bottom, Rocky, Mussel bed

Dredging instrument used, 7 feet beam trawl

Direction of drift, S x E; distance, 1/2 mile

Temperature of air, 5.2 Fahr, therm. No., 7592

" of surface water, ~~10.2~~ 11.0

" at depth of ~~10~~ fathoms, 11.0

" at bottom, ~~10.2~~ 11.0

Density at surface, 1.022 temp., 11.0

" at depth of ~~10~~ fathoms, 11.0

" at bottom, 1.022 11.0

Number of salinometer,

Barometer reading, 29.72

State of sky, overcast, haze

Direction of wind, S. W.; force, very light

Rain, no

Direction of surface current, S. S. W.; force, 1 knot

" of bottom " ; force,

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt Comdr
R. S. Davenport, US Navy

Name and position of observer, R. M. S. S. S.
Pharmacist US Navy

NOTES RELATING TO STATION NO. 76

- About a bushel of Mytilus
~~2~~ Spongia
 3 Stake - oyster
 Lepidonotus
 Panopeus number
 Caprellula flava
 6 Nereis flammea
 1 Anodonta pane
 2 Half sized brown dove
 Peltia muricata few
 2 Small astacia
 1 " from incline
 Membranipora
 Few dead shells of pecten ten
 " " " scallop
 Petrolota
 Anachis several
 1 small sea robin
 53 Forbici large 3 to 7 in
 1 Pandalus
 Tritia
 Crayfish few
 Oyster crab
 Asterias in tube (Gouldia)
 Few Annelids.

6005

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. ~~77~~ 2005
Date, ~~Nov. 14~~ 14-98
Time of day, 10.55 am; of tide, $3\frac{1}{2}$ 40^m of ebb
Locality, near Dutch Told Harbor
Exact position, Dutch Told Harbor Light
E x R. 25th 7 mile мая.
Depth, 9 $\frac{1}{2}$ fathoms
Nature of bottom, mussel bed, muddy
Dredging instrument used, 7 feet beam trawl
Direction of drift, S. distance, $\frac{3}{8}$ mile
Temperature of air, 52 Fahr. therm. No., 7397
" of surface water, "
" at depth of fathoms, "
" at bottom, "
Density at surface, 1.022 temp., 10.8°
" at depth of fathoms, "
" at bottom, 1.022 + .. 11.0°
Number of salinometer, 7104
Barometer reading, 29.70
State of sky, overcast
Direction of wind, O.W.; force, light
Rain, no.
Direction of surface current, O.O.W.; force, 1 knot
" of bottom " ; force,
Name of vessel, U.S.F.C.S. Fish Hawk
Service to which attached, Fish Commission
Name and rank of commanding officer, Lt. Comdr
R. G. Davenport, USNavy
Name and position of observer, R. Milligan
Pharmacist, USNavy

13 bush mytilus

Artisii very numerous

Rana Tomacae

1 blue crab

1 Troponia

Pipe fish.

Camus ^{placatus} ~~irroratus~~, female with eggs

Cribrella,

Cycloj fus

Pelica

Panopeus

6006

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 78 - ~~2006~~ 11, 23
714
4.09

Date, Nov. 14 - 98

Time of day, 11, 23 ; of tide, 2 h. of ebb

Locality, Near Dutch Island Harbor

Exact position, Dutch Island Harbor Light
S. 1/2 E. 87 of mile mag.

Depth, 7 1/2 fathoms

Nature of bottom, Rocky

Dredging instrument used, 7 feet beam trawl

Direction of drift, S. ; distance, 1/4 mile

Temperature of air, 52 Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0216 temp., 10.6°

" at depth of fathoms, "

" at bottom, 1.022 " 10.8°

Number of salinometer, 7104

Barometer reading, 29.72

State of sky, Overcast

Direction of wind, S. W. ; force, light

Rain, no

Direction of surface current, S. S. W. ; force, 1 knot

" of bottom " ; force, "

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr
R. S. Searcyport. USNavy

Name and position of observer, J. D. Killigan
Pharmacist. USNavy

NOTES RELATING TO STATION NO. 78

- 1 small nereis ~~Lepidochloa~~
- 2 Blue crab, *Carpidula plicata*
- 2 King crab, with *Carpidula* form.
- Few *Raja Ermanii*
- tridorsalis*
- Numerous squirrel hake, *Anachis*
- Balanus*: few. *E. longicauda* few
- Cyotypus*, *E. anclipes* in *tridorsalis*
- 1 *Gastropod*, Rock ells, (?)
- Few *Cancer morosus*
- Microciona*, *Urosalpinx*
- Serpula* ~~*Lepidochloa*~~
- numerous *Crucifera* *Hydrozoa*
- Young sea urchin, 1 *Cancer*
- 3 White flounder
- 2 *tridorsalis* *Obelia*
- young hake *Pelia*
- Scallop* 1 *spine*
- Quantity of kelp & chondrus
- Chalina* sponge (branch ^{with small} ~~with small~~ *anachis*?)
- 3 small lobsters.
- Few shells of *Tridorsalis*! *Pardalis*
- Common scallop.
- Cap. foveolata*. sev. young squirrel hake
- Anomea* - *Mytilus* few
- Few young silver hake
- Anomea* *slabra* - 1 Pipe fish
- Few live *mytilus*.
- Foresia* (*asterias*) 2 doz 1 1/2 to 4

6007

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 79 - ~~2007~~

Date, April 14 - 1892

Time of day, 11.45 ; of tide, 4³/₄ h of ebb.

Locality, Narragansett Bay.

Exact position, South of Old Light

Depth, 4⁶/₁₀ fathoms - 1.75 mile mag

Nature of bottom, Rocky & shelly, mussel bed

Dredging instrument used, 7 feet beam trawl

Direction of drift, S. S. W. ; distance, 3/8 mile

Temperature of air, 57° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.022 temp., 10.4°

" at depth of fathoms, "

" at bottom, 1.022 " 10.5°

Number of salinometer, 7104

Barometer reading, 29.67

State of sky, overcast

Direction of wind, S. W. ; force, 1

Rain, no

Direction of surface current, S. S. W. ; force, 1/2 knot

" of bottom " ; force, "

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Dr. Comdr

R. S. Sarsaparilla

Name and position of observer, W. J. C. Sarsaparilla

Pharmacist

1-18 *Opesia sculpina*

4 *Squilla hakea*

5 *Merula flammula*

1 *Merula pane*

1 *Labridia*

~~*Syctopus*~~ shell

Shells of *Mytilus*

Patricola

1 *Syctopus* live

Fulgur

Capnodula formicata

Craufon

Pyrosoma

Microciona

Asterias Forbesii 1 small regenerating

Few empty skate eggs

Cap. plena

3 *Ensis pacificus* few

Eurosalpinx

2 *Anelipes* in *tritia*

Anachis

Nerita small

Panopeus

} dead shells.

2008
1928
80

6008

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 80 — ~~2008~~

Date, Nov. 10, 1896

Time of day, 1 pm ; of tide, Low water

Locality, Narragansett Bay

Exact position, Commanche N. Br. Light
2 1/2 N by E 1/2 E. 2 1/2 miles away.

Depth, 5 fathoms

Nature of bottom, Rocky

Dredging instrument used, 7 foot beam trawl.

Direction of drift, S. x W. ; distance, 3/8 of mile

Temperature of air, 52° Fahr therm. No., 7397

“ of surface water, “

“ at depth of _____ fathoms, “

“ at bottom, “

Density at surface, 1.021 temp., 10.5° C

“ at depth of _____ fathoms, “

“ at bottom, 1.021 + “ 10.7° C

Number of salinometer, 7104

Barometer reading, 29.64

State of sky, overcast

Direction of wind, N x South ; force, 11

Rain, no.

Direction of surface current, 0 ; force, 0

“ of bottom “ ; force, “

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt Commr
R. G. Davenport, USN

Name and position of observer, W. M. ...
Pharmacist

NOTES RELATING TO STATION NO. 80

- ✓ *Arctia fluminea*
- 3 *Arctia fluminea* same "
- ✓ *Pygospio helix* - small
- 4 *Rana emmae*
- 1 *Pygospio helix*
- 1 *Cantharus vivax*, small
- few pieces of *Clonina Sulph*
- Peripoda*

Parosipus

Escharella

Few shells of *Mytilus*

Orfina

Pygospio few dead

C. fornicata, *Tritia*

Lin. tritica

Gammarus plentiful

Membranipora

small *antropoda*, few

few *lepidonotus*

E. longicauda

14 *Alava forbesii* 1 to 3 in

Hydroastraea

Small shells of *pygospio*, *Tritia*

tritona, with *E. longicauda*

One shell of *Chydosphaera*

1 young fish (?), 1 1/2 in long

6009

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 81 — ~~2009~~

Date, Nov. 14, 1898

Time of day, 1.35 pm; of tide, 1/2 of flood

Locality, Narragansett Bay,

Exact position, Comanicut N. Pt Light
W. E x N 1/2 W ~~1/2 mile~~ 1/2 miles to

Depth, 4 fathom

Nature of bottom, muddy

Dredging instrument used, Tresham trawl

Direction of drift, S. by E; distance, 3/8 mile

Temperature of air, 50° Fahr therm. No., 7397

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, 1.021 temp., 10.2°

“ at depth of fathoms, “

“ at bottom, 1.021 + .. 10.7°

Number of salinometer, 7104

Barometer reading, 29.64

State of sky, Blue cloudy

Direction of wind, N. W.; force, 2

Rain, no-

Direction of surface current, 0; force, 0

“ of bottom “; force, “

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr
R. G. Sampson, USN

Name and position of observer, J. M. ...
Pharm ...

NOTES RELATING TO STATION NO. 81

- Shells of nearly all mollusks numerous
1 Blue Crab.
4 *Squilla* small
Eggs of *Sycotopus* 3 specimens
Serpula - numerous
4 *Raria* *Sonninae*
4 *Wonda* - *fluminea* *Mullus*
9 *Wonda* *parva* *Crayfish*
Sycotopus
~~Cap~~ *Chapoda* *plana*
E *fulvicornis* several in
Fulgur & *sycotopus* shells
1 *avahit*.
Small *ebon* *herce* (?)
Tritia - *Yoldia* shells.
Nuculea
Shells of *Anomoea*, *callita*, *tutia*
cap *foveata*
Peltus *irrad*.
Eupleria, some alive
Cisteneides
E. *Longicarpus*, few hydroids
Pandora several
Scapharca shells
Yoldia plentiful, *Urosalpinx*
Maadi, *Rusc* etc. (?)
Lepidonotus
Common Star nearly 100 in to 5 in

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. *Fr 2010*

Date, *Nov. 14 - 98*

Time of day, *2:05 pm*; of tide, *1/4 of flood*

Locality, *Narragansett Bay*

Exact position, *Cranston N. of Light*
S. E. 1/2 S 1.25 mile way.

Depth, *3 3/4 fathoms*

Nature of bottom, *Muddy*

Dredging instrument used, *3 fathom trawl*

Direction of drift, *N x S.*; distance, *1/4 mile*

Temperature of air, *52 Fahr* therm. No., *7397*

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, *1.020* temp., *10.0 °C*

" at depth of fathoms, "

" at bottom, *1.021* " *10.1 °C*

Number of salinometer, *7104*

Barometer reading, *29.64*

State of sky, *Overcast*

Direction of wind, *W x W*; force, *2*

Rain, *no*

Direction of surface current, *N x E*; force, *1/8 knot*

" of bottom " ; force, "

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

Service to which attached, *Fish Commission*

Name and rank of commanding officer, *Lt. Commr*
R. G. Sampson, USN

Name and position of observer, *H. M. ...*
Pharmacist

1 Blue crab

1 Cancer virgatus

+ 12 mason pan

1 12 mason pan, Parapercis

2 hake, squirrel

3 young squilla, Chirophora

Dead Cystis shells

Pycnotypus - dead - Cistene

Callineta, cincta.

Pholus costata.

Shells of mya, Cap. formata

Mytilus, Yoldia.

Few Anelida - Tritia - Empleura

~~Empleura~~ + tritia alive

C. formata + C. plana, alive -

few Hydroids - a small fan,

Small shells of l. heros

Cardium punctatum

nuclea, L. truncata

Anfulas, multilinea shells

Paryplona

~~1 Anelida~~

120 Forbesii Alas - Small 1 in to 2 in

6011

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 83 - ~~2011~~

Date, Nov 12 - 98

Time of day, 1.45 pm; of tide, 1/2, 30^m of flood

Locality, Narragansett Bay

Exact position, Casco Point N. Pt. Light
S. 3/4 E, 1.50 miles mag

Depth, 4 1/2 fathoms

Nature of bottom, muddy, shelly

Dredging instrument used, 7 foot beam trawl

Direction of drift, N. N. x N. 3/4 W, distance, 1/2 mile

Temperature of air, 52° Fah therm. No., 7597

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.020 + temp., 10.1° C

" at depth of fathoms, "

" at bottom, 1.0204, " 10.0° C

Number of salinometer, 7104

Barometer reading, 29.64

State of sky, Overcast

Direction of wind, N. N. ; force, 2

Rain, no

Direction of surface current, N. E ; force, 1/4

" of bottom " ; force, "

Name of vessel, U. S. Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr
R. S. Carpenter, USN

Name and position of observer, J. H. ...
Hammer, USN

✓ *Walteria plumosa*

about
175

Plan. Forbesii - 1 skate

Agartha several young

1 case of long prob. cov. with barnacles.

Shells of *Callista* - convex, yellow

Sycotypus *Clidophrusa*, *C. formicata*

Muscula, *Mulinia*, *Ammonia* shells

Littorina.

Ambrosia - many shells

Euplexura. *Obelia* on kelp

L. heros - shells. Razor clams

Conoclinium pinnulatum

6012

643

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 84 — ~~2012~~

Date, Nov. 14, 98

Time of day, 2:45 pm; of tide, $3/4$ h of flood

Locality, Narragansett Bay

Exact position, Conanicut Pt N. Light
S 1/2 E. 2.5 miles mag.

Depth, $4 1/2$ fathoms

Nature of bottom, Muddy & shelly

Dredging instrument used, 7 feet beam trawl

Direction of drift, N. W. $1/4$ W; distance, $1/2$ mile

Temperature of air, 52° therm. No., 7397

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, 1.020 temp., 10°

“ at depth of fathoms, “

“ at bottom, 1.021 “ 10°

Number of salinometer, 7104

Barometer reading, 29.63

State of sky, Partly cloudy

Direction of wind, N. W; force, 3

Rain, no

Direction of surface current, N. E; force, $1/2$

“ of bottom “; force, “

Name of vessel, U. S. Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr
R. G. Davenport, USNavy

Name and position of observer, J. D. Milligan
Phar. USNavy

15 mussels

- 1 Symmactis
- 2 Tridacna
- 2 small shells

1 Hog choker

Two young squilla

Rock uls. (?)

1 young silver perch (?)

about 150 Forbes sh.

Cranium, scutellum, tibia

Protopylus, Panopeus

distendens, Eupleria

3 pipe fish

Rock uls. Murex

Palaeomonetes, 1 young silver perch (?)

Same shells as in preceding haul with exception of Tadaurus

1. Litoria, Scapharca

1 Neritidae

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 85 — 2013

Date, Nov. 4 98

Time of day, 3 pm ; of tide, 2h of flood

Locality, Managansett Bay

Exact position, Starbuck Light.

N. N. E. 2.50 miles mag

Depth, 4 1/2 fathoms

Nature of bottom, shelly & muddy

Dredging instrument used, 7 ft beam trawl

Direction of drift, N. N. W. ; distance, 3/8 mile

Temperature of air, 52° Fah. therm. No., 7394

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, 1.020 temp., 10.°

“ at depth of fathoms, “

“ at bottom, 1.020 + “ 9.8°

Number of salinometer, Both 7100

Barometer reading, 29.63

State of sky, overcast

Direction of wind, N. W. ; force, 3

Rain, no.

Direction of surface current, N. E. ; force, 1/2

“ of bottom “ ; force, “

Name of vessel, U. S. Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, St. Gunn

R. G. Barnhart

Name and position of observer, J. M. ...

...

6 Mmbr-flower

3 Svinaca.

1 Haka squilla.

several other squilla.

Crampon & Placomonetes

Eupleura, Potopylus,

Cleidophora tritica

~~Chelone~~

Shells of C. formicosa, cellula

Yoldia Potrocola, common shells

Cleidophora, anomura,

scaphandra. Fragments of P. costata

+ 80 Plais tuban 1 to 4 inches

& pipe fish feet

Few small silver fish?

Rock etc.?

Panoplius. Melina

Few Amphipods

Antennas, feet

& longicarpus. few

Small Pyrosoma

Few Mytilus shells.

6014

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 86 - 2014

Date, Nov. 14, 98

Time of day, 4 pm ; of tide, 3/4 of flood

Locality, Narragansett Bay

Exact position, Rose Island Light

Depth, 12 1/4 fathoms

Nature of bottom, 1 Hard

Dredging instrument used, 7 foot beam trawl

Direction of drift, S. by E. 1/2 S. ; distance, 1/4 mile

Temperature of air, 48° Fahr therm. No., 7397

" of surface water, " "

" at depth of fathoms, " "

" at bottom, " "

Density at surface, 1.022 temp., 11.2 C

" at depth of fathoms, " "

" at bottom, 1.022 " 10.8 C

Number of salinometer, " "

Barometer reading, 29.65

State of sky, Overcast

Direction of wind, N.W. ; force, 4

Rain, no

Direction of surface current, N.E. ; force, 1/2

" of bottom " ; force, " "

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr - R. B. Sampson, Narragansett

Name and position of observer, W. Milligan

NOTES RELATING TO STATION NO. 86

- 1 *Conger* sp. - 1 *Porolepis*
 4 *Rana* *Emmeleni*. + 1 young
 Few *Yung* *agilis* *haka*
 " *silva* " (?)
 or cluster of *Chelonia*
 2 species of *Chelonia* *sulph*
 1 *Homidont* *pan*
 1 *Pelua* *nuttea*.
 2 *Synbranchia*.
 3 small *Janulus*. - Few *Volva*
 1 *Cyanea* *torosata* small.
 1 *Pupa* fish. *Euphonia*
Cranion, *Yung* *sea* *robina*.
Cyclops shell
Spinobis.
Diaphrasia *hydrois*.
Kelp, *ul-* *grass*
 + 2 dry *Blain* *Ferri* 1 to 4
Pelua *nuttea*.
Artate + *Intier* shells
L. littora *Chiroph*
L. truncata *Thyarsa*
Intier with 2 *Synbranchia*
Parop *skin* *calhata* *an*
 1 *Chirophera*. small

6015

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 87 - 2015

Date, Nov. 14 - 98

Time of day, 4:20 pm; of tide, 5/4 high flow

Locality, Narragansett Bay

Exact position, Rose Island Light

Depth, 24 fathoms 75 1/2 mile way

Nature of bottom, Hard

Dredging instrument used, 2 ft beam trawl

Direction of drift, P.W. x S; distance, 1/2 mile

Temperature of air, 48° Fahr therm. No., 7397

" of surface water, " "

" at depth of fathoms, " "

" at bottom, " "

Density at surface, 1.0214 temp., 11°

" at depth of fathoms, " "

" at bottom, 1.0224 " 10.7°

Number of salinometer, 2104

Barometer reading, 29.65

State of sky, Overcast

Direction of wind, N.W.; force, 4

Rain, No

Direction of surface current, N.E.; force, 1/2

" of bottom " " ; force, " "

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr
R. G. Sampson, USNavy

Name and position of observer, J. M. Chace
Harbour Master USNavy

NOTES RELATING TO STATION NO. 87

+ 20 Rara Erythraea
 Numerous Sponges taken
 1. Winter Garden. large
 7 Twp. W. from
 E. Longicauda tunnel
 Small group
 8 small Kati erythraea
 + 2 by Mass. Fybi
 Callista + pebbles
 shells. L. littorea
 1 Palaeomonetes. Pilia
 two very common in
 Euphorbia. Parafus.
 L. tricenata. Probably same
 tricenata. Cap. plana.

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 88 - 2016
 Date, Nov. 16. 98
 Time of day, 4:45 pm; of tide, 3 3/4 h. of flood
 Locality, Narragansett Bay
 Exact position, Blue Field Light
N.E. x N. 70 north mag.
 Depth, 19 fathoms
 Nature of bottom, Hard
 Dredging instrument used, 7 feet beam trawl
 Direction of drift, S x W. 1/4 W.; distance, 1/2 mile
 Temperature of air, 49 Fahr therm. No., 7397
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.021 temp., 10.3 °C
 " at depth of fathoms, " "
 " at bottom, 1.0214 " 10.6
 Number of salinometer, 7104
 Barometer reading, 29.65
 State of sky, B, c, s
 Direction of wind, N.W.; force, 4
 Rain, no
 Direction of surface current, N.E.; force, 1/2
 " of bottom " " ; force, "
 Name of vessel, U.S.F.C.S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt. Commr
R. G. Davenport
 Name and position of observer, John H. ...
...

Few pieces of kelp

1 *Ervacia*

Few *parvulus*

" *glia*

Diaplasma hydroid

1 *Asarte undata*

L. bicolorata with *E. longicauda*

Some young *canes* (?) *torvatus*

Few *Crangon*, *Tritia* shells

Small *conicibulum* shells.

Spiza (?)

Young *Merse* - squirrel

L. litorea shells.

1 young of spot flounder

1 *Cibicides*

0.5 inch plume hydroid

Dredge well connected with N. carried away ~~60~~ ¹⁰ fathoms haul. Bottom very rocky at this station and for some distance to westward.

643

RECORD OF DREDGING, TEMPERATURE AND DENSITY.

Station No. 89 - ~~2017~~

Date, Nov. 15th 1908

Time of day, 8:40 am ; of tide, 40^m of ebb.

Locality, off Ocher Point.

Exact position, Seasconnet Pt light bears E 2 1/4 S 3/4 W 4 miles mag 8 fathoms

Depth, 8 fathoms

Nature of bottom, Very Rocky

Dredging instrument used, Dredge

Direction of drift, S.W. 1/4 S. ; distance, 3/8 mile

Temperature of air, 40 — therm. No., 7597

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, 1.0237 temp., 12.7° C

“ at depth of fathoms, “

“ at bottom, 1.0244 “ 11.3° C

Number of salinometer, 7104

Barometer reading, 30.08

State of sky, Blue

Direction of wind, N.W. ; force, 3

Rain, No.

Direction of surface current, 0 ; force, 0

“ of bottom “ ; force, “

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Dr. Comdr R. G. Sarsapar. USNavy

Name and position of observer, J. D. Milligan Providence USNavy

NOTES RELATING TO STATION NO.

89.

Bridge carried away.
Bottom very rocky.

Some kelp, not algae
Spiracles, Bryozoa, and a
few clusters of small medusae
eggs, clinging to frame

Bottom very rocky, and dredge was hauled sooner than usual & suspended.

6018

643

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 90 - ~~2018~~

Date, Nov. 15-98

Time of day, 9:10 am; of tide, 1st 10th of ebb.

Locality, East of Brenton's Reef.

Exact position, Brenton's Reef Lt. ship. ~~W. 1/2 N. 7.5 mile mag.~~

Depth, 10 fathoms

Nature of bottom, Fine gravelly sand

Dredging instrument used, Dredge

Direction of drift, N. by W.; distance, 1/2 mile

Temperature of air, 40° Fahr. therm. No., 7397

" of surface water, " "

" at depth of fathoms, " "

" at bottom, " "

Density at surface, 1.023 + temp., 17.0° C

" at depth of fathoms, " "

" at bottom, 1.024 " 11.3° C

Number of salinometer, 7104

Barometer reading, 30.08

State of sky, Blue

Direction of wind, N.W.; force, 3.

Rain, no

Direction of surface current, E; force, 1/3 knot

" of bottom " ; force, "

Name of vessel, USFCS Fish Hawk

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr. R. G. Davenport, USNavy

Name and position of observer, J. M. McIligan
Pharmacist USNavy

NOTES RELATING TO STATION NO. 90

L. truncata *truncata*

with *E. longicauda*

1 *Anelida* *Rhynchobolus* group
few amphipods. - *Urosalpinx*

Lusina, *filosa*, *astata* } *dead*
Cytherea, *Yoldia* } *shell*

Cricetulum
Kelp on *modiola* mod.

Few sand dollars small
Gravel + broken shells + sand

Membranipora

Bottom very rocky, and dredge
was taken up from a rocky mass
643 ~~to~~ ~~near~~ it. 6019

**RECORD OF DREDGING,
TEMPERATURE AND DENSITY.**

Station No. 91 — ~~2019~~
Date, Nov. 15 - 98
Time of day, 9:20 am, of tide, 1st 20^m of ebb.
Locality, near Brewster's Reef
Exact position, Brewster's Reef Lt Ship
N x N. 1/2 W. 1.50 miles west
Depth, 12 fathoms
Nature of bottom, Hard granular bottom
Dredging instrument used, Dredge
Direction of drift, N. S. W.; distance, 1/8 mile
Temperature of air, 40° Fahr therm. No., 7577
“ of surface water, “
“ at depth of fathoms, “
“ at bottom, “
Density at surface, 1.0237 temp., 12.0° C
“ at depth of fathoms, “
“ at bottom, 1.0237 “ 11.4° C
Number of salinometer, 104
Barometer reading, 30.08
State of sky, Blue
Direction of wind, N. W.; force, 3
Rain, No
Direction of surface current, E; force, 1/2
“ of bottom “; force, “
Name of vessel, U. S. Fish Hawk
Service to which attached, Fish Commission
Name and rank of commanding officer, Lt Comdr
R. G. Sampson, USN
Name and position of observer,
Phelps
Phelps

NOTES RELATING TO STATION NO. 91

Red Algae, Spiralis. numerous
Lepidodermata.
Coraline
Cribrella, small, plentiful
Astarte like, few
Bryozoa. Anachis.
1 small common
Kelp with Otchis
Fus Crumson
Urosalpinx shell
E. Anachis (?)
Gravel. - Fusus. Sp.

6020

643

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No.

9th 2020

Date,

Mar. 15-91

Time of day,

9.50 ; of tide, 1st 50th of ebb.

Locality,

Near Brenton's Reef,

Exact position,

Brenton's Reef 1/2 mile
S. W. x S., .50 mile way

Depth,

15 1/2 fathoms

Nature of bottom,

Dredging instrument used,

Dredge

Direction of drift,

N. W. 1/2 N, distance, 3/8 mile

Temperature of air,

41st therm. No., 7397

" of surface water,

"

" at depth of fathoms,

"

" at bottom,

"

Density at surface,

1.023 + temp., 41.5^o

" at depth of fathoms,

"

" at bottom,

1.023 + " 41.2^o

Number of salinometer,

7104

Barometer reading,

30.09

State of sky,

Blue

Direction of wind,

N. W. ; force, 3

Rain,

No

Direction of surface current,

S. E. ; force, 1/2

" of bottom

" ; force,

Name of vessel,

U. S. Fish Hawk

Service to which attached,

Fish Commission

Name and rank of commanding officer,

St Andrew
R. G. Swenson, 2nd Lieut.

Name and position of observer,

J. H. Collins
Pharmacist

Few *Cyclocardium*
 .. very small sand dollars
Fritia common
 Few ^{very} small *Maclia* - young
Cardium pinnulatum?
 Few *Cranium*
Spirifer *Maclia*
 young *Astarte*
L. triangularis with *E. longicauda*
 young *L. hirsuta*
 Empty shells of above
 + unsculptured
Quoniam, few.
 Broken *Nyctinus*
 Few small worms & tubes
Grinella fraudulenta?
 1 pink *Synapta*?
C. formicata shells - few
Maclia few young
Corbula
 1 *Gouldi macliacca*?

6021

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 93 — ~~2021~~

Date, Nov. 15 - 1898

Time of day, 10.30^{am}; of tide, 2 1/2 h. of ebb

Locality, Near Entrance to Manzan, Bay

Exact position, Beacon Tail Light, S.E., 1.37 mile mag

Depth, 6 1/4 fathoms

Nature of bottom, ~~Sandy Hard~~

Dredging instrument used, ~~7 ft beam trawl~~ Dredge

Direction of drift, SxW; distance, 1/4 mile

Temperature of air, 42° Fahr therm. No., 7977

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, 1.023 temp., 11.2° C

“ at depth of fathoms, “

“ at bottom, 1.023 “ 11.5° C

Number of salinometer, 7104

Barometer reading, 30.12

State of sky, Blue

Direction of wind, N.W.; force, 5

Rain, no

Direction of surface current, S.S.W; force, 0.15 knots

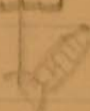
“ of bottom “; force, “

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt Comdr R. G. Davenport, USN

Name and position of observer, J. H. Miller, Pharmacist USN

- Few Crayfish *Aspiorhynchus*
Neositta.
 Few Young lady crab.
 .. *Parad. dolla*.
 Tritia with *E. longicauda*
 Few *Luci. triticea*.
 .. *Youngia maestra*
Ancistros.
L. heros *maestri shells*
L. littorea,
Tellina.
 1 *Ys. m.*, purple star
 Young *Astarte* shells
Acfulus
Artemea aculeata
L. tricolor wrapped by *E. longi*.
 Strange crustacea 

6022

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. *94 - 4022*

Date, *Nov. 15 - 98*

Time of day, *10.40* ; of tide, *2^h 40^m of ebb*

Locality, *Western Passage of Narragansett Bay*

Exact position, *Whale Rock Light*

Depth, *9 3/4 fathoms*, *50 mile mag*

Nature of bottom, *Hard shell*

Dredging instrument used, *Dredge*

Direction of drift, *S. S. W.* ; distance, *1/4 mile*

Temperature of air, *42° Fahr* therm. No., *7397*

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, *1.023* temp., *11.3°*

“ at depth of fathoms, “

“ at bottom, *1.023* “ *11.5°*

Number of salinometer, *9104*

Barometer reading, *30.12*

State of sky, *Blue*

Direction of wind, *N. W.* ; force, *5*

Rain, *no*

Direction of surface current, *P. S. W.* ; force, *1 knot*

“ of bottom “ ; force, “

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

Service to which attached, *Fish Commission*

Name and rank of commanding officer, *Lt. Comdr*
R. G. Davenport USN

Name and position of observer, *J. M. Milligan*
Pharmacist

NOTES RELATING TO STATION NO. 94

Shelly - very light brown
few small shells other
Fritia, Crangon, few small
young Macrura,
Cancer irroratus
L. tricolor, L. E. Longia
Eusalpinx, L. leuco
Fritia, Anachis,
Broken Mytilus
Casta? (?), Bryozoa
Scapharca shells.
Fusus shells ?

6023

643

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 95 - ~~2023~~
 Date, Nov. 15 - 98
 Time of day, 10.55 ; of tide, 2^h. 55^m ebb
 Locality, Near Whale Rock Light.
 Exact position, Whale Rock Light.
 N. E 3/4 E. .50 mile mag
 Depth, 10 fathoms
 Nature of bottom, Hard shelly
 Dredging instrument used, Dredge
 Direction of drift, S. W. x S. 1/2 S. ; distance, 3/8 mile
 Temperature of air, 44° Fahr therm. No., 7397
 " of surface water, " "
 " at depth of fathoms, " "
 " at bottom, " "
 Density at surface, 1.023 temp., 11.2° C
 " at depth of fathoms, " "
 " at bottom, 1.023 + " 11.8° C
 Number of salinometer, 7104
 Barometer reading, 30.13
 State of sky, blue
 Direction of wind, N. W. ; force, 5
 Rain, no -
 Direction of surface current, S. E. W. ; force, 1 knot
 " of bottom " ; force, "
 Name of vessel, U. S. F. C. S. Fish Hawk
 Service to which attached, Fish Commission
 Name and rank of commanding officer, Lt. Commr.
 R. G. Sargent
 Name and position of observer, John P. ...

NOTES RELATING TO STATION NO. 95

1 maroon star. 7/2
plus L. truncata above
Fritia
" Macra,

L. truncata { occupied by
Fritia C. longicauda
Nassa vivax (?)

Shells of macra, Poldia
Fritia, L. truncata, Nassa
C. formata.
1 or 2 small worms (?)

6024

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 96 — ~~2024~~

Date, Nov. 15 - 98

Time of day, 11.10 am ; of tide, 5th 10th of ebb

Locality, Near Massachusetts Pier.

Exact position, Whale Rock Light

Depth, N.E x E 1/2 E — 1 mile mag. 7. 3/4 fathoms

Nature of bottom, Hard

Dredging instrument used, 7 feet beam trawl

Direction of drift, S.W. ; distance, 3/8 mile

Temperature of air, 43 therm. No., 7397

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, 1.022 + temp., 11.2° C

“ at depth of fathoms, “

“ at bottom, 1.023 + “ 11.8° C

Number of salinometer, 7104

Barometer reading, 30.13

State of sky, B. C.

Direction of wind, N.W. ; force, 5

Rain, no

Direction of surface current, S.O.W. ; force, 1/2 knot

“ of bottom “ ; force, “

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr R.W. Davenport

Name and position of observer, J. M. Quinn

NOTES RELATING TO STATION NO. 96

Few Crayfish
+ Rana American
1 squirrel hake
Red snapper, a little
Few E. longicauda in tank
Hydroids
Diaplesia, a little
Red algae,
1 goldfish shell
1 canem invertebrates.

6025

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 97 ~~2025~~

Date, Nov. 15 - 98

Time of day, 11.20 ; of tide, 3¹/₂ 20^m of ebb

Locality, Near Nanasett Pier,

Exact position, Whale Rock Light,
N.E. 1/2 E 1.75 mile mag.

Depth, 10 fathoms

Nature of bottom, Hard.

Dredging instrument used, 7 feet beam trawl

Direction of drift, S. 3/4 E ; distance, 1/2 mile

Temperature of air, LL therm. No., 7397

" of surface water, " "

" at depth of fathoms, " "

" at bottom, " "

Density at surface, 1.022 + temp., 11.3° C

" at depth of fathoms, " "

" at bottom, 1.023 + .. 12.1° C

Number of salinometer, 30.7104

Barometer reading, 30.72

State of sky, Blue

Direction of wind, N.W. ; force, 5

Rain, no

Direction of surface current, S. S. W. ; force, 1/2 knot

" of bottom " " ; force, " "

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Dr. Connor

R. G. Davenport, USN

Name and position of observer, [Signature]
P. [Signature]

NOTES RELATING TO STATION NO. 97

✓ *Rana lessonae*

1. Ovaries large

1. Large summer flounder

✓ *Pandanus*

Pair of keys with oblique

Small silver fish (?)

Pair of diaphragms (yours)

Few crabs

1. cluslets of mud crabs

Tritia

1. *E. longicauda*

1. pipe fish.

6026

643

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 98 ~~2026~~

Date, Nov. 15 - 98

Time of day, 11:55 am ; of tide, 3.5 to 3.50 pm gath.

Locality, off Pt. Judith Neck.

Exact position, Pt. Judith Light

S. N. x W. 3.37 mile mag

Depth, 10 fathoms

Nature of bottom, hard

Dredging instrument used, 1/2 ton haul

Direction of drift, S. S. W ; distance, 1/4 mile

Temperature of air, 44 Fahr, therm. No., 7299

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 11.6°

" at depth of fathoms, "

" at bottom, 1.022 " 12.8°

Number of salinometer, 7104

Barometer reading, 30.12

State of sky, Blue

Direction of wind, NW ; force, 5

Rain, no

Direction of surface current, S. S. W. ; force, 1/2 knot

" of bottom " ; force,

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt Comdr
R. M. Sampson, USN

Name and position of observer,
J. M. [unclear]
Pt. Judith

1 goose foot

1 Eimacia

1 18 spine sculpin

1 winter flounder

1 silver hake (?)

Scaphasi

Few sand dollar

in Crayfish

E. longicauda in L. truncata +
tibia shells

1 Purpura

1 Fusus shell

Little kelp

1 ~~Cyprina decemcostata~~ (shell of
Nassa vivax (?))

6027

643

RECORD OF DREDGING,
TEMPERATURE AND DENSITY.

Station No. 99 — ~~2027~~

Date, Apr. 15 - 98

Time of day, 11.45; of tide, 3 3/4 h of ebb

Locality, off Pt. Judith Nlex

Exact position, Pt. Judith Light

S. W. 1/2 Pt. 2.75 miles mag

Depth, 10 1/2 fathoms

Nature of bottom, Hom

Dredging instrument used, 7 fur beam trawl

Direction of drift, S. W.; distance, 1/4 mile

Temperature of air, 44° F therm. No., 7397

“ of surface water, “

“ at depth of fathoms, “

“ at bottom, “

Density at surface, 1.023 temp., 11.6° C

“ at depth of fathoms, “

“ at bottom, 1.023 “ 12.5° C

Number of salinometer, 7104

Barometer reading, 30.12

State of sky, Blue

Direction of wind, N. W.; force, 5

Rain, no

Direction of surface current, S. S. W.; force, 1/2 knot

“ of bottom “; force, “

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

Service to which attached, Fish Commission

Name and rank of commanding officer, Lt. Comdr

R. L. Sampson

Name and position of observer, Korn

R. W.

NOTES RELATING TO STATION NO. 99

- Few sand dollars
 2 square bases
 1 Forbesii star 5 in
 Few Crinoids
 " Nymph shells
 7 *Astarte castanea*
 Few *Tritia* sp. by E. longirostris
~~*Diaplasia*~~ = *Hydrallmania*
 1 small white holothurian
 1 *Yungia inacta*
 1 *Cylos dentata* shell of
 1 *Nassa virex*, (?)

In these notes the hydroid usually
 put down as *Diphdsia* is prob-
 ably *Hydrallmania falcata*
L. tenebrosa should be *Lacuna Vincta*
Nassa virex? is *Tritia trinctata*

June 100
6028
100

Beyond 6%
 Boston
 7 fur home
 June 45

Ben. super 1023 June 11.50
 .. Boston 1023 .. 14.00

Bar 30.08

3 Emma
 8 square here
 1 silver water 7.1
 4 1 + 2 pins scalp
 1 various jam
 Two sand dollar
 E. longicornis in tub
 L. littoria