1928-1977

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ORIGINAL LOG BOOK OF THE--"FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

yr. 1898

Numbers 1928 to 1977

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 1 - 1928

Date, Oct. 26 - 98

Time of day, 11.40 AM; of tide, 1st h. of flood

Locality, Narragansett Bay R. I.

Exact position, Whale Rock Lt S.S.W. ¼ W
1 5/8 miles mag.

Depth, 33 feet,

Nature of bottom, Sand, shell.

Dredging instrument used, Dredge

Direction of drift, N. W. ; distance, 1/16 mile -

Temperature of air, 62° F therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, 61° "

Density at surface, 1.022, temp., 15°C

" at depth of fathoms, "

" at bottom, 1.022,2 " 14.5°C

Number of salinometer, { No 7301 surface
N

Barometer reading, 29,81

State of sky, Overcast

Direction of wind, S. S. E ; force, stiff = 10

Rain, yes - continuous & hard

Direction of surface current, North ; force, .3 knot

" of bottom " — ; force, —

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

Service to which attached, U. S. Fish Commission

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

Name and position of observer,
Pharmacist J. D. Milligan
USN

NOTES RELATING TO STATION NO. 1

Lit Newport anchorage at 9.50 am and with Dr. H. C. Bumpus of Brown University & Mr. Jack Southwick, both of the Rhode Island Fish Commission proceeded around Beaver Tail Lt, to this station. The S. E wind increasing in force, the sea making in so high as to give the vessel great deal of motion and it becoming to thick and rainy to get bearings and work properly only one cast of the dredge was taken the vessel was then steamed around N Pt. of Conanicut Is and returned to the anchorage of Newport. No living matter was brought up in the dredge

Ordinary ships thermometer no. 7397 for air temperature used.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

1929

Station No. 2

Date, Oct. 28 - 98.

Time of day, 9.20 am ; of tide, 3d h — pebb

Locality, Providence River R. I.

Exact position, Sassafras Pt. Lt. S x E. 56 mile Mag

Depth, 22 1/2 feet

Nature of bottom, Black mud

Dredging instrument used, 7 foot beam trawl

Direction of drift, South ; distance, 1/8 mile

Temperature of air, 51 f. therm. No., 7397

" of surface water, " 7344

" at depth of fathoms, "

" at bottom, " 7344

Density at surface, 1.017 temp., 12.5 c

" at depth of fathoms, "

" at bottom, 1.019 " 13 c

Number of salinometer, Surface 7301, Bottom 7104

Barometer reading, 30.31

State of sky, clear

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

Rain, No.

Direction of surface current, South ; force, .3 knot

" of bottom " ; force,

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

Service to which attached, U. S. Fish Commission

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

Name and position of observer,

D. Milligan, Sharmaster, USN

Cast 2

NOTES RELATING TO STATION NO. 2

Put down off beam travel
at anchorage A and drifted
with current to this station
(Sta. 2) when hauled up.
The travel contained

Only living animals 1 Sagrilla
few Crangon.
Palaemonetes – few Illinassa
Many dead Tritia
Mya shells circa
1½ – 2½ inches in length
few Tyrus

Anchorage A mag. N¾W
.62 miles from Sassafras
Lt.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 3 1930

Date, Oct. 28. - 1898

Time of day, 9.38 am ; of tide, 3 1/4 hours of ebb

Locality, Providence River R. I.

Exact position, Sassafras Pt. Lt. S 3/4 E. 2 miles Mag.

Depth, 22 1/2 feet.

Nature of bottom, Black mud.

Dredging instrument used, 7 foot beam trawl

Direction of drift, S x E 1/2 E. ; distance, 5/8 mile

Temperature of air, 51 f therm. No., 7397

" of surface water, 13 c " 7344

" at depth of fathoms, "

" at bottom, 13.5 c " 7344

Density at surface, 1.011 temp., 13 c

" at depth of fathoms, "

" at bottom, 1.017 " 13.5 c

Number of salinometer, Bottom - 7049 Surface - 7049

Barometer reading, 30.31,

State of sky, Clear blue

Direction of wind, North ; force, 5

Rain, no

Direction of surface current, S x E 1/2 E ; force, .3 knot

" of bottom " ; force,

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

Service to which attached, U. S. Fish Commission

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

Name and position of observer, J. D. Milligan Pharmacist

Cast 3

NOTES RELATING TO STATION NO. 3

Put down 7 ft beam trawl about Station 1 and drifted into current to ~~this~~ Station (Sta 3) when hauled up. The trawl contained.

Living forms - 1 Venus mercenaria
2 Platyonichus ocellatus
6 Crangon
1 Eupagurus longicarpus
½ pt. Mulinea
½ pt. Ilianassa
Many small dead Mya.
1 Neverita duplicata.
Everything very dark & black.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 4 1931

Date, Oct. 28 — 98

Time of day, 10.15 am ; of tide, 3 3/4 hours of ebb

Locality, Providence River R. I.

Exact position, Sassafras pt Lt. Ho, S. W x W 1/2 W. 300 feet Mag.

Depth, 27 feet.

Nature of bottom, Black mud.

Dredging instrument used, 7 ft beam trawl

Direction of drift, S x E. 1/2 E. ; distance, 3/8 mile

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

" of surface water, 13° C " 7344

" at depth of fathoms, "

" at bottom, 14° C " 7344

Density at surface, 1.007 temp., 13° C

" at depth of fathoms, "

" at bottom, 1.017 " 14° C

Number of salinometer, surface 7301 Bottom 7049

Barometer reading, 30 32

State of sky, Clear blue.

Direction of wind, North ; force, 2

Rain, No

Direction of surface current, S x E 1/2 E ; force, .3 knot

" of bottom " ; force,

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

Service to which attached, U. S. Fish Commission

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

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

Cast 4

NOTES RELATING TO STATION NO. 4

Put down 7 ft beam trawl in 12 ft water inside red buoy No 10. backed out then drifted with the current to this station (4) when hauled up. The trawl contained one large star fish and.

Living - 1 Raja erinacea
1 Pseudopleuronets americana.
1 Starfish
1 Sycotypus
Several Balanus

Several Fruiting Hydroid.
Numerous Tunlinea
Several Crangon
Water holds many Peridinium.
1 Panopeus.
1 Syngathus
1 Mytilus
1 colony of Clinassa with eggs.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

1932

Station No. 5

Date, Oct. 28-98

Time of day, 10.40 AM of tide, 4¼ hours of ebb

Locality, Providence River R.I.

Exact position, Cassafras Pt. Lt. Ho. NW ¼ N.
.28 miles Mag.

Depth, 28.5 feet

Nature of bottom, Black mud

Dredging instrument used, 7 foot beam trawl

Direction of drift, S.x E ½ E. ; distance, 3/10 mile

Temperature of air, 58° F therm. No., 7397

" of surface water, 13° C "

" at depth of fathoms, "

" at bottom, 13° C "

Density at surface, 1,008 temp., 13° C

" at depth of fathoms, "

" at bottom, 1,018 " 13° C

Number of salinometer, surface 7301 bottom 7049

Barometer reading, 30.33

State of sky, Clear blue

Direction of wind, North ; force, 2

Rain, No

Direction of surface current, S x E ½ E ; force, .3 knots

" of bottom " ; force,

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

Service to which attached, U.S. Fish Commission

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

Name and position of observer, J. W. Milligan
Physician

Card 5

NOTES RELATING TO STATION NO. 5

Put trawl down near Sta. 4 and drifted north. Current to this station (5) when hauled up. The trawl contained

Living - Several quarts of Mulinea
1 Squilla
2 small Mulin fluder
Several Balanus
Several Crangon
Several Ilinassa, a hereid
Several Empagans Yg. Rhynchobolus
Dead shells Venus, Mya

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 6 1933

Date, Oct. 28-98.

Time of day, 11.10 am; of tide, 4 3/4 hours of ebb

Locality, Borden's River R.I.

Exact position, Sassafras Rt. Lt. H. N.W. 1/4 N .42 miles Mag.

Depth, 22 1/2 feet.

Nature of bottom, Black mud

Dredging instrument used, 7 foot beam trawl

Direction of drift, S.E. ; distance, 1/8 mile

Temperature of air, 54 f therm. No., 7397

" of surface water, 13.5 c "

" at depth of fathoms, "

" at bottom, 14° c "

Density at surface, 1.007 temp., 13.5 c

" at depth of fathoms, "

" at bottom, 1.017 " 14° c

Number of salinometer, surface 7301 Bottom 7049

Barometer reading, 30.33

State of sky, clear blue

Direction of wind, North ; force, 2

Rain, no

Direction of surface current, S.E. ; force, .4 knots

" of bottom " ; force,

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

Service to which attached, U.S. Fish Com.

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

Name and position of observer, J. D. Milligan ? Pharmacist

Cut 6

NOTES RELATING TO STATION NO. 6

Put trawl down near sta 5 and drifted with current to this station (6), when hauled up. The trawl contained

Lilly Callinectes
Small Lilinia
Several Eranyons
2 Pecks of solid Mulinea
1 Lime tritia
2-3 Small Mya
1 Small Star fish.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 7 1934

Date, Oct. 28-1898

Time of day, 11.35 ; of tide, 5 hours ebb.

Locality, Providence River R. I.

Exact position, Fullers Rk. Lt. N.O. E ¼ N 300 ft. Mag.

Depth, 31.5

Nature of bottom, Black mud

Dredging instrument used, 7 foot beam trawl

Direction of drift, S.S.E. ; distance, 3/16 mile

Temperature of air, 50 f therm. No., 7397

" of surface water, 14 c "

" at depth of fathoms, "

" at bottom, 14 c "

Density at surface, 1008 temp., 14 c

" at depth of fathoms, "

" at bottom, 1018 " 14 c

Number of salinometer, Surface 7301 Bottom 7049

Barometer reading, 30.33

State of sky, Clear blue

Direction of wind, North ; force, 2

Rain, No

Direction of surface current, S.S.E. ; force, .5 knots

" of bottom " ; force,

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

Service to which attached, U.S. Fish Commission

Name and rank of commanding officer, Lt. Condon

R. G. Davenport, Manager

Name and position of observer,

J. D. Mulligan

Pharmacist

Card 7

NOTES RELATING TO STATION NO. 7

Put trawl down near sta 5 and drifted with current to this station when hauled up. The trawl contained one small star fish and

Wing Much Ulva
Numerous Hydroids.
" Crangon
1 Platyonichus ocellatus.
1 Nereid –
Nucleinea less abundant, than at
" 7
1 Cupidula –

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 8 1935

Date, Oct. 28/98

Time of day, 2.55 PM; of tide, 3d hrs. of flood

Locality, Narragansett Bay, Rd.

Exact position, Conanicut Pt. Lt. Ho.
NW x N 1 3/8 miles Mag.

Depth, 4 to 6 fms.

Nature of bottom, Mud

Dredging instrument used, 7 ft. beam trawl

Direction of drift, S.E. ; distance, 1/8 of mile

Temperature of air, 57 6 therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, 13.c "

Density at surface, 1.020 temp., 13.5c

" at depth of fathoms, "

" at bottom, 1.020 " 13.c

Number of salinometer, 7049

Barometer reading, 30.30

State of sky, Cloudy – fair

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

Rain, No –

Direction of surface current, N.N.W ; force, .3 Knots

" of bottom " ; force,

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

Service to which attached, U.S. Fish Com.

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

Name and position of observer,
J. D. Gilligan

NOTES RELATING TO STATION NO. 8

2 Large Squilla ~
2 Raja cinacea —
3 Callinectes —
2 dry Large Stars ~
1 Large yoldia.
Several Clidiophria.
1 Pelea lunatica.
1 Bothus maculatus.
1 Eupagurus longicarpus ~
Several Tritia trivitata
1 Sanopeus.
10 Yoldias.
Several Palaemonetes.
Eggs of Illianassa.
Several Turbinea

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 9 1936

Date, Oct. 28 - 98

Time of day, 3.55 PM of tide, 4th hr. of flood.

Locality, Narragansett Bay R.I.

Exact position, Conanicut Lt. Lt. H.
N×W ½ W 2¼ miles Mag.

Depth, 3½ to 4½ fms.

Nature of bottom, muddy

Dredging instrument used, 7 foot bearing trawl

Direction of drift, E.S.E ; distance, 1/8 mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.019 temp., 13.5 C

" at depth of fathoms, "

" at bottom, 1.020 " 13 C

Number of salinometer, surface 7049 Bottom 7301

Barometer reading, 30.30 —

State of sky, Overcast

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

Rain, no

Direction of surface current, N.N.W ; force, 3 knots

" of bottom " ; force,

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

Service to which attached, U.S. Fish Commission

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

Name and position of observer,
J. D. Milligan
Pharmacist

NOTES RELATING TO STATION NO. 9

1 Star fish
Cancer Irroratus
Astenias gouldii
Euplewra Caudata
Crangon vulgaris
Mulinia lateralis
Tritia trivittata
Cerebratulus
Yoldia limatula
Clidrophora

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 10 1937

Date, Oct. 31 - 1898

Time of day, 11-am ; of tide, 3 hours ebb.

Locality, Narragansett Bay

Exact position, Beaver Tail light N.E. x E 1/2 E.
.75 mile ~~distant~~ mag
~~75 mile dist. Whale back light N.W. 1/2 mile dist.~~

Depth, 15 fathom

Nature of bottom, mud & sand.

Dredging instrument used, 7 feet beam trawl.

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

Temperature of air, 57 fahr. therm. No., 7397

" ~~of surface water,~~ "

" ~~at depth of~~ fathoms, "

" at bottom, 56 "

Density at surface, 1022 temp., 12.6°

" ~~at depth of~~ fathoms, "

" at bottom, 1024 " 13.°

Number of salinometer, both obs. 7104

Barometer reading, 29.77

State of sky, Clear blue & cloudy

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

Rain, No —

Direction of surface current, SSW. ; force, 3/10

" 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, U.S. Navy

Name and position of observer, J. D. Milligan Pharmacist U.S. Navy

NOTES RELATING TO STATION NO.

Nothing in travel

Travel forbidden

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 11th 1938

Date, Oct. 31 - 1898

Time of day, 11.20 Am. ; of tide, 3 hr. 20 m of ebb.

Locality, Narragansett Bay

Exact position, miles Beaver tail light. N.E x E 1/4 E.

1.12 mag mile. ~~Wake back light, N x W 1/4 W. 1/2 mile.~~

Depth, 12 fathoms

Nature of bottom, Sand

Dredging instrument used, 10 feet beam trawl.

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

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.022 temp., 12.7°

" at depth of — fathoms, — "

" at bottom, 1.024 " 13.4°

Number of salinometer, both obs. 7104

Barometer reading, 29.77

State of sky, Blue - cloudy

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

Rain, No

Direction of surface current, S. S. W. ; force, 3/10

" 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. U.S. Navy.

Name and position of observer, J. D. Milligan Pharmacist. U.S. Navy

NOTES RELATING TO STATION NO. 11

2 small maroon colored Stars
2 Skates (Crenacea)
2 Squirrel hake
5 Small fish ~~probably~~ cod Silver hake
Tritia
Dead bivalves
Hermit crab: Longicaipus
Most of the shells were inhabited
by Longicaipus
3 Cancon Vulgaris

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 12 1939

Date, Oct. 31–1898

Time of day, 12.05 pm ; of tide, 4 hours ebb.

Locality, Narragansett Bay

Exact position, Beaver Tail bearing, N.E x E. ~~3/4~~ 2.37 miles

~~Tower at Narrag. pier N x E. 1 mile dist~~ Mag.

Depth, 12 fathoms

Nature of bottom, Sand

Dredging instrument used, 10 feet beam trawl

Direction of drift, S.W. 1/2 S. ; distance, 3/8 of mile

Temperature of air, 53 Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.022 temp., 13.4

" at depth of fathoms, "

" at bottom, 1.023 " 13.6 c

Number of salinometer, both obs 7104

Barometer reading, 29.74

State of sky, Cloudy

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

Rain, no —

Direction of surface current, S.S.W. ; force, 3/10

" of bottom " ; force,

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

Service to which attached, Fish Commission

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

Name and position of observer, J. H. Milligan Pharmacist. U.S. Navy

NOTES RELATING TO STATION NO. 12

27 Squirrell hake -
about 2 doz young silver hake
4 Dwellie flounders
1 4 spotted "
1 large silver hake
4 med. " "
15 small skates
1 barn-door "
3 Grose fish.
2 horse-shoe crabs
2 Cancer ~~irroratus~~ & boreali's
3 " " young -
1 blue crab,
2 large star fish. Forv.
~~4~~ 5 small purple star (?)
some Kelp. dulce.
1 young sea robin
3 tritia
Hydroid
3 Gammarius
few Astyrus in sea weed.
1 Nudibranch.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 13 1940

Date, Oct. 31 – 1898

Time of day, 1.35 pm ; of tide, 5¼ hours of ebb

Locality, Narragansett Bay.

Exact position, Beaver Tail light N.E ½ N. 2.7 ~~2¼~~ miles mag ~~Tower at Narrag. Pier. N.W. x W 1¼ mile~~

Depth, 99 feet.

Nature of bottom, Clayey, sticky sand

Dredging instrument used, 10 feet beam trawl

Direction of drift, E x N ; distance, 1/8 mile

Temperature of air, 56 fahr 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, 1.024 " – 14°

Number of salinometer, 7104

Barometer reading, 29.72

State of sky, Blue – cloudy

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

Rain, No —

Direction of surface current, S.S.W ; force, 2/10

" 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. U.S.Navy

Name and position of observer, J. D. Milligan Pharmacist. U.S.Navy

NOTES RELATING TO STATION NO. 13

1 young cusk -
4 squirrel hake
1 unknown fish (egg bag?).
2 Cancer ~~[illegible]~~ Borealis.
few small " " probably this year
2 Jonah crab.
2 purple star
18 small - maroon
2 Nuclea
1 valve Lucina philosa.
1 Yoldia (piece)
1 Fusus -
few Caprella
few tritia shells occupied by Lingicarpus.
1 Gammarid.
1 Parasitic Isopods.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 14 — 1941

Date, Oct. 31 — 1898

Time of day, 2,20 pm; of tide, low water.

Locality, Narragansett Bay

Exact position, Pt. Judith W x S 1/2 S. ~~2 1/4~~ 3.25 miles

~~Beavertail, N.N.E. 4 miles~~ mag.

Depth, 19 1/2 fathoms

Nature of bottom, Sticky, sandy clay

Dredging instrument used, 10 foot beam trawl

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

Temperature of air, 55 Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.022 temp., 13,1°

" ~~at depth of~~ fathoms, "

" at bottom, 1.0235 " 13,3°

Number of salinometer, both obs, 7104

Barometer reading, 29,76

State of sky, Blue - Cloudy.

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

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. Davenport, USNavy

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

NOTES RELATING TO STATION NO. 14

~~4~~ Maroon star fish
~~1~~ skates Erinacea
1 " spotted –
1 shrimp – red striated –
1 small silver hake
1 winter flounder, had parasites
1 ~~large~~ med silver hake.
1 squirrel "

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 15 – 1942

Date, Oct. 31 – 98

Time of day, 3,00 pm ; of tide, 3/4 hour flood

Locality, Narragansett Bay

Exact position, ~~Whale back light N.N.E. 1/2 E.~~ ~~4 1/2 miles~~ – Pt. Judith N x S 1/2 S. 1.62 miles mag

Depth, 13 1/2

Nature of bottom, Hard sand

Dredging instrument used, 10 feet beam trawl

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

Temperature of air, 54 therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1022 temp., 13.2

" ~~at depth of~~ fathoms, "

" at bottom, 1.0235 " 13.5

Number of salinometer, 7104

Barometer reading, 29.78

State of sky, Blue – cloudy

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

Rain, No –

Direction of surface current, N.E. ; force, 1/10

" 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. Nsnavy

Name and position of observer, J. D. Milligan Pharmacist. Nsnavy

NOTES RELATING TO STATION NO. 15

Several Caprella.
1 Pecten tenuis costata, mud.
1 Cancer ~~[illegible]~~, borealis
3 Young " "
1 Empty egg case large skate
2 small cribrella.
1 Annelid worm.
1 small bass - (?)
6 red striped shrimp.
1 Young sea-robin.
1 very large cunner.
2 winter flounder (small)
4 Squirrel hake
2 empty shell. modiola modiolus

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 16 — 1943

Date, Oct. 31 - 98

Time of day, 3.35 PM; of tide, 1 1/4 hour of flood

Locality, Narragansett Bay

Exact position, Pt. Judith N.W. 1/2 W. 2 miles mag.

~~Brenton reef lt. sh. N.E. 1/4 N - 5 miles~~

Depth, 8 8 1/2 feet.

Nature of bottom, Hard sand

Dredging instrument used, 10 feet beam trawl.

Direction of drift, S.W x W. 1/2 W; distance, 5/8 mile

Temperature of air, 54° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.022 temp., 13°C

" at depth of fathoms, "

" at bottom, 1.024 " 13.1°C

Number of salinometer, 7104

Barometer reading, 29.79

State of sky, Blue - cloudy

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

Rain, no —

Direction of surface current, N.E ; force, 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. C. Davenport, USNAVY

Name and position of observer,

J. D. Milligan

Pharmacist. USNAVY

NOTES RELATING TO STATION NO. 16

Some 2 to 3 doz small purple star fish
½ doz small squid
6 Eupagurus bernhardus
3 young scallops (?)
2 " sea robins
Obelia on kelp,
1 Eupagurus longicarpus
1 Pinnotheres ostreum.
8 Shrimps Pandalus (?)
1 Buccinum
1 Fragment of sponge (?)
1 large Pecten tunicostata
1 med " "
2 small " "
2 Empty shells of Modiola Modiola
1 large Balanus sp.
6 Winter flounders.
18 squirrel Hake
2 silver "
5 Hake (Merluccia)
2 " Barndoor.

The 10 feet beam trawl was badly torn & disabled during this cast. Presumably by rocks.

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RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 17 — 1944

Date, Nov. 1st 1898.

Time of day, 9.15 am. ; of tide, 1/2 hour of ebb.

Locality, Entrance to Bl. Isl. Sound

Exact position, Ft Jud. light N 1/4 E. 1 3/4 mile mag.

~~Bl. Isl. North light. O.W. 7 3/4 miles~~

Depth, 9 1/4 fathoms

Nature of bottom, Rocky Sandy.

Dredging instrument used, 10 feet beam trawl

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

Temperature of air, 56° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 12.8°

" ~~at depth of~~ fathoms, "

" at bottom, 1.024 " 13°

Number of salinometer, 7104

Barometer reading, 30.23

State of sky, Clear blue

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

Rain, No —

Direction of surface current, W. ; force, .8

" 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, U.S.N.

Name and position of observer, J. D. Milligan Pharmacist U.S.N.

NOTES RELATING TO STATION NO. 17

1 small cumacea
1 Devils apron thing covered with membranipora and Obelia sp.
Fragments of chiara sulphurea,
sponge attached to algae
a few small purple stars
Pennaria Hydroid 1 colony
spirorbis borealis? on algae
a few urosalpinx
a few Astyris
1 or 2 small nudibranchs acolis?
Mytilus (small)
small anomia
Lepidonotus sp.
} in hold fast of "Devils apron"
several species Bryozoa
1 spicule of coralline (?)
1 Saxicava
a few live eggs of urosalpinx
a small tetrabellid

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 18 — 1945

Date, Nov. 1st 1898

Time of day, 9.45 am. ; of tide, 1 hour of ebb.

Locality, Entrance Blk Isld Sound

Exact position, Pt. Jud. light N.E ½ E, 2.7 mag. miles

~~Block Isld North light, S. W x S. 6¼ miles~~

Depth, 13 fathoms

Nature of bottom, Rock & Sand

Dredging instrument used, 7 feet beam trawl

Direction of drift, W. x N. ; distance, 5/8 of mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 12.9°C

" at depth of fathoms, "

" at bottom, 1.024 " 13.1°C

Number of salinometer, 7104

Barometer reading, 30.25

State of sky, Clear blue.

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

Rain, no —

Direction of surface current, 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, U.S.N.

Name and position of observer, J. D. Milligan Pharmacist U.S.N.

NOTES RELATING TO STATION NO. 18

Clima sulphurea
algae with Spirorbis sp. abundant
2 marson Stars
1 Cribrella
Bryoza 2 or 3 species
Tritia shells a dog in hab. by C. longicarpus
a few Idotea sp.
2 Lunatia shells. C. longicarpus inside
Hydroid in fruit
numerous crangon
1 small cunner
a few very small annelids in algae
Crepidula planca } on L. triseriata
" fornicata }
Hydractinea }
a small fragment of Amaraecium sp.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 19 — 1946

Date, Nov. 1st 1898

Time of day, 10.20 am ; of tide, about 1/4 than ebb

Locality, Entrance to Bl. Isld, Sound mag.

Exact position, Pt. Jud light N x E ½ E. 3/4 mile

~~Block Isld north light O. N. ½ W. 6 miles~~

Depth, 13 fathoms

Nature of bottom, Sandy - Rocky

Dredging instrument used, 7 feet beam trawl.

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

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1,023. temp., 13.0°

" ~~at depth of fathoms,~~ "

" at bottom, 1,024 " 13.5°

Number of salinometer, 7104

Barometer reading, 30:26

State of sky, Clear blue

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

Rain, No -

Direction of surface current, 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,

J. D. Milligan
Pharmacist USN

NOTES RELATING TO STATION NO. 19

numerous small cribrella
a few very small purple stars
1 Corbula contracta
Mytilus,
Anachis
Fragments of Alcyonium carneum
a few Lepidonotus
Amoracium
Clione sulphurea
one or 2 varietes of sponge.
1 piece Astrangia
Several doz. small cunners
" Species Hydroid some in fruit
Quantities of Delasseria (oak leaf alga) with Spirorbis attached
Ophiopholis aculeata
Crucibulum striatum
a few idotea
E. Longicarpus in L. triseriata shell
Small pieces of Bucula
a few eggs of uros alpinus.
Spirorbis.
Bryozoa, tritic with E. longicarpus

The bottom is rough –

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RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 20 – 1947

Date, Nov. 1st 1898

Time of day, 10.50 ; of tide, 2 hours of ebb.

Locality, Entrance to Block Isld Sound

Exact position, Pt Jud light. N.E. ½ N. 4.7 miles mag.

~~Block Isld North light O.W ½ O 4 3/8 m~~

Depth, 22½ fathoms.

Nature of bottom, sticky.

Dredging instrument used, small dredge.

Direction of drift, S. ½ W ; distance, ¼ mile

Temperature of air, 52 therm. No., 7397

" of surface water, 1.023 "

" at depth of fathoms, "

" at bottom, 57 Negretti "

Density at surface, 1.023 temp., 13.7°c

" at depth of fathoms, "

" at bottom, 1.024 Sigsbees' cup " 13.8°c

Number of salinometer, 7104

Barometer reading, 30.26

State of sky, Clear blue

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

Rain, No –

Direction of surface current, 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,

J. D. Milligan.

Pharmacist, USNavy

The specimens of [illegible]
This station not fully made out

NOTES RELATING TO STATION NO. 20

Syprina Islandica - (dead)
Asterte undatum
Cardium pinulatum
Syphio pygmaea
Small bivalve - undetermined
Tritia
5 Skates erineatea
About 2 Squirrel hake
Young hake
Crangdon vulgaris
1 small silver hake
Numerous Pandalus
Few Young scup
Numerous purple & maroon star fish
A few cribrella
an old cast of green urchin

also see notes of Sta 21 for for remainder

21

— 20 —

a few small holothuriae (underter
Yoldia sapotilla.
A number of dif spec. of amelid worms
1 or 2 spec of nemertean
Tritia.
Few dif spec. underter. small bivalves
Spermastus fossa.
Unciola irrorata (numerous)
1 Clidiopera
A few small amphipods
a large cinder covered with mud
tubes of a small amphipod (undetermined)

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 21 — 1948

Date, Nov. 1st 1898

Time of day, 11-45 Am. ; of tide, 3 hours of ebb.

Locality, Entrance to Block Isle Sound

Exact position, ~~Pt. Jud. light N.N.E. 6 1/4 m.~~ miles mag.
Block Isle North light W x D 1/2 S. 3 3/4 ~~m~~

Depth, 22 fathoms

Nature of bottom,

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 55° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, 56.5° Fahr Negretti

Density at surface, 1.023 temp., 13° C

" at depth of fathoms, "

" at bottom, (Sigbers' cup) 1.024 " 13° C

Number of salinometer, 7104

Barometer reading, 30:24

State of sky, Clear blue

Direction of wind, W. ; force, 1

Rain, No -

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

~~" of bottom " ; force,~~

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

Service to which attached, Fish Commission

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

Name and position of observer,
J. D. Milligan
Pharmacist U.S. Navy

NOTES RELATING TO STATION NO. 21

Several large pieces of subcrites compacta
E. Bernhardtus - several
Kelp. cov. with Bryozoa, prob. membranipora
a few young cancer
a number of caprella
a few young squid
a few small cunnus -
a young sea robin
2 sculpin - (common)
a lot sypho pygmea
1 young pecten ten -
some amaroecum
2 small holothuria, (undeter)
1 Lucina filosa (dead)
2 Anelid worms
Few mucola irrorata.
1 small hermit crab, (undeter)
" " fish (")
Few illanassa,
Few undermined univalves
" isopods.
2 small grubby - common.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 22 — 1949

Date, Nov. 1 '98

Time of day, 1.10 pm ; of tide, about 4 1/2 hrs of ebb

Locality, East of Block Island.

Exact position, Block Isl'd North Cr. W x N 1/2 N

4 3/8 miles mag. ~~Blk Isl. S. Elight B. W. 1/4 S 1/4 W~~

Depth, 22 fathoms

Nature of bottom, Sandy. Hard

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 54° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, 56° Fahr negretti.

Density at surface, 1.023 temp., 13.1°

" at depth of fathoms, "

" at bottom, Digsbee cup 1.023 " 13.2°

Number of salinometer, 7104

Barometer reading, 30.23

State of sky, Blue - light haze.

Direction of wind, W. ; force, 2

Rain, No -

Direction of surface current, 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. Amer R. G. Davenport USNavy

Name and position of observer, J. D. Milligan Pharmacist USN

NOTES RELATING TO STATION NO. 22

~~Several Winter flounder~~
1 Adult 4 spot "
1 small 4 " "
over a dz winter flounders (assorted)
several window-panes. (Bothus)
several young squid | small Hydroids
4 sculpins. 18 spine?
1 small scup.
1 large sea-robin - unknown
numerous pandulus.
2 skates - Erinacea.
1 " Butterfly (?)
young P. carolinus sea robin (several)
Few small cunners
Several pecten ten.
1 Crepidula fornicata
1 Cyprina islandica (dead)
1 Buccinum shell with Bernhardus
a few purple stars
several maroon stars.
1 live Buccinum (small.
Several Bernhardus in Tritia & Sypho.
Spirobus on algae
Long dead stems of Head tubularia hydrow.
probably Couthouyi (no heads)
1 Crangon vulgaris. Small
Few young bass (rock, (?)
Very small cancer borealis.
Few pieces of sponge
1 cancer borealis
1 anomia aculeata

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 23 – 1950

Date, Nov. 1 – 98

Time of day, 2,00 pm ; of tide, 5 3/4 hours of ebb,

Locality, East of Block Island

Exact position, ~~Block Isld, north lt, N. W. ½ N. 3 3/4 miles~~ – Blk Isld. S.E. Light. S.W. 3/4 W. 2 3/4 miles mag.

Depth, 20 fathoms

Nature of bottom, Hard sand

Dredging instrument used, 7 feet beam trawl

Direction of drift, S.W. ¼ S ; distance, 1 mile

Temperature of air, 53 f therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, 56° Fahr Negretti

Density at surface, 1.023 temp., 13.1°C

" ~~at depth of~~ fathoms, "

" at bottom, 1.0235 Sigsbee ap 12.7°C

Number of salinometer, 7104

Barometer reading, 30.22

State of sky, Blue – light haze

Direction of wind, W. ; force, 2

Rain, no

Direction of surface current, 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, U.S. Navy

Name and position of observer, J. D. Wilgan Pharmacist Mate

NOTES RELATING TO STATION NO. 23

10 squirrel hake.
8 Ornitic flounders
1 small & 1 adult rea erniacea
4 Window pane flounders
1 Cribrella
1 peck pecten ten.
1 Sand dollar.
A few sea robins - young P. carolinus
21 Crucibulum striatum with eggs
Several Bernhardus
Caudalus, abundant,
Cyclocardia borealis.
Astarte sp.
Cyprina islandica (dead shell)
Castenia
several squid
Young silver hake -
1 Cancer Borealis.
few Crangon vulgaris.
Young Gurbby = A. aneus)
1 anemone -
Lunanatia heros
1 small white holothuria
1 young - (Sp. bass)
Dead eggs of skate
1 Pinotheres maculata
1 " ostrium
A few Maroon stars.
1 Hermit crab, undetermined
Cadeum punctatum (empty)
A fragment of Alcyonium carneum
1 large conyzin 18 spine?
1 live tubularia couthouyi & several stems
1 dead shell of modcola (undetermined)
few small purple star - fish (quite young)

Tritia
Green sea-urchins

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 24 — 1951

Date, Nov 1st 1898

Time of day, 2.40 pm ; of tide, low water

Locality, S. E. of Block Island

Exact position, Blk. Isl'd S. E. lt. Ho. N. W. 1.62 miles mag

~~Montauk pt light W ½ S. 18 miles~~

Depth, 16 fathoms

Nature of bottom, Sand - (Hard)

Dredging instrument used, 7 feet beam trawl

Direction of drift, S. W. ½ S ; distance, 3/4 mile

Temperature of air, 51° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, 56.5 Negretti

Density at surface, 1.023 temp., 13° C

" at depth of fathoms, "

" at bottom, 1.023 Digsbee cup 12.9° C

Number of salinometer, 7104

Barometer reading, 30.23

State of sky, Blue, light - haze

Direction of wind, 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. Davenport. Usnavy

Name and position of observer,

J. W. McGuigan
Pharm. Usn

NOTES RELATING TO STATION NO. 24

1 winter flounder
Several window pane flounders
2 rusty "
1 1/2 bushels sand dollars.
few small silver hake.
1 large empty egg of skate
Few young scup.
Young sea robin - several. P. cowlings
Small number pandalus
Hydroid. (?)
Few cribrella, small
" maroon star
" small purple star
" young squid.
Astarte castanea,
Young sea clams
Young rusty flounder
Small Berhardus -
1 pecten ten.
Kelp covered with obelia
1 large sculpin
1 squirrel hake
1 large skate
Few Crangon
5 skates, small - 2 sp.
Cyclocardia borealis
1 young lump fish
4 white holothurian
Tritia
Few young cancer
1 very small sea anemone
1 anachris

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 75 — 1952

Date, Nov. 1-98

Time of day, 3.30 pm; of tide, 1 hour of flood

Locality, South of Block Island

Exact position, Blk Ild O. E. Light: O NE ¼ E 2.75 miles mag.

~~Montauk pt. light Ang. W. 12½ miles~~

Depth, 13 fathoms

Nature of bottom, Hard, gravelly.

Dredging instrument used, 7 feet beam trawl

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

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

" ~~of surface water,~~ "

" ~~at depth of~~ fathoms, "

" ~~at bottom,~~ "

Density at surface, 1.023 temp., 13° C

" at depth of fathoms, "

" at bottom, 1.025 Hodges. " 12.7° C

Number of salinometer, 7104

Barometer reading, 30.28

State of sky, Blue - light haze

Direction of wind, W. ; force, ½

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. Davenport, N.S.Navy

Name and position of observer, J. D. Milligan Phar. N.Sn.

NOTES RELATING TO STATION NO. 25

5 Winter flounders
5 window panes
Few young sea worms
Several small white holothurians
a few Crangon vul.
Some young cancer borealis (?)
few pandalus
2 small pieces of fucus
Lots of gravel
Sponge with few small hydroids,
a few Bowerbankia.
Tritia.
2 young sea clams.
1 Sand dollar.
1 Longicaudus.
Limacra triferiata,
2 or 3 very small purple stars.
Several detritus castanea.
few Caprella
4 purple stars 2 in. across.
2 light 2 dark

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 26. — 1953

Date, Nov. 2nd 1898,

Time of day, 10 am. ; of tide, 3/4 an hour of ebb

Locality, Narragansett Bay

Exact position, Dutch Isld light, S x W. dist. .67 of a mile mag.

Depth, 7½ fathoms,

Nature of bottom, Muscel bed.

Dredging instrument used, 7 feet beam trawl,

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

Temperature of air, 56° Fahr. therm. No., 7397

" ~~of surface water,~~ "

" ~~at depth of~~ fathoms, "

" ~~at bottom,~~ "

Density at surface, 1.022 temp., 12.7° C

" at depth of fathoms, "

" at bottom, 1.026 " 13.° C

Number of salinometer, 7104

Barometer reading, 30.17

State of sky, Blue - clouds -

Direction of wind, S x W. ; force, 5

Rain, No —

Direction of surface current, S. x W. ; force, 1/4 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, U.S. Navy

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

NOTES RELATING TO STATION NO. 26

Mitilus edulis - Half bushel - Med size
1 Cribrella
1 Squirrel hasa
2 P. Carolinus young.
4 Winter flounder med size
4 Skates Bonnet. Erinacea.
1 Sycotyrus
Crapidula fornicata common
Few Panopius.
Panarina hydroid. 2 or 3 colonyes
3 Rock Els. 1,
few, Lepidonotus sp.
1 Brittle Star - Small
Eurosalpinx
Crapidula plana
1 Prophonia affinis.
Dead shells of Mytilus
" " Crapidula corexa
" " Callista convexa.
20 Star fish 7 inches (forb)
1 pipe fish
30 Sea urchins arbacia
few Crangon Vul.
Anachis - Species (few)
E. Longicarpus
Hydractinia
Small Spec. of Bugula
Dead shells of Sea Transversa.
1 Littorina littoria
~~Littoria~~
1 Oyster crab
Few dead anomia

Amphiphora (?)
Cidiophora (dead shell)

Block

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RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 27 — 1954

Date, Nov. 2-1898.

Time of day, 10.18 am ; of tide, 1 hour of ebb

Locality, Nanaquasett Bay

Exact position, Dutch Field light S. W x S. 1/2 South — dist. 1 1/4 miles mag.

Depth, 10 1/4 fathoms

Nature of bottom, Stony - shelly

Dredging instrument used, 7 feet beam Trawl

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

Temperature of air, 56° fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.022 temp., 12.5°C

~~" at depth of fathoms,~~ "

" at bottom, 1.022 " 13.°C

Number of salinometer, 7104

Barometer reading, 30.17

State of sky, Blue Cloudy

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

Rain, no

Direction of surface current, S x W. ; force, 1/3 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. U.S.Navy

Name and position of observer, J. D. Milligan Pharmacist, U.S.N.

NOTES RELATING TO STATION NO. 27

Cinders – dead mitylus shells.
Serpulae plenty
Few small hydroids.
Few lepidonotus
Few Tritia
E. longicarpus
1 Microciona
Orangea Vul.
Bryozoa
1 Eurosalpinx
9 star-fish (forb) rather small
Crapidula plana
1 Geuophore
Few dead shells crapidula, mitylus
and callista convexa
Egg string of sycotypus with young.
Few small amphipods
Oak leaf dellesaria (algae)
Panopeus few.
Heteromysis form. numerous
in dead shell of Sycotypus.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 28 - 1955

Date, Nov. 2 - 1898

Time of day, 10.45 am ; of tide, 1/4 h. of ebb

Locality, Narragansett Bay

Exact position, Dutch Island Light, S.S.W.,

2.67 miles mag.

Depth, 9 fathoms

Nature of bottom, Hard - Sandy

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 56° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.021 temp., 12.3° C

~~" at depth of fathoms~~, "

" at bottom, 1.022 " 13° C

Number of salinometer, 7104

Barometer reading, 30.16

State of sky, Cloudy.

Direction of wind, S.W. ; force, 6

Rain, no

Direction of surface current, S x W, ; force, 1/3 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. D. Mulligan

Pharmacist

USN

NOTES RELATING TO STATION NO. 28

Species
Sulphur sponge, (Cliona)
Few epidonotus
6 small star fish from 1½ to 3 cm. (Forbes)
Pomopius.
Pieces of dead Mitylus shells.
Dead shell of razor clam - small.
Few small Amphipods.
Escharella (?) Encrusting
some of the sulphur sponge.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 29 - 1956

Date, Nov. 25 1898

Time of day, 11.05 am ; of tide, 1/2 h. of ebb

Locality, Narragansett Bay

Exact position, Conanicut North Pt. light, N. E. 1/2 E. 1.25 miles mag.

Depth, 7 fathoms

Nature of bottom, Sandy

Dredging instrument used, 7 feet beam trawl

Direction of drift, E 3/4 N. ; distance, 3/8 of mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.021 temp., 12.3°C

~~" at depth of fathoms,~~ "

" at bottom, 1.023 " 12.7°C

Number of salinometer, 7104

Barometer reading, 30.15

State of sky, Blue sky Cloudy

Direction of wind, S. W. ; force, 6

Rain, No

Direction of surface current, S x 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. G. Davenport. U.S.Navy

Name and position of observer,

J. D. Milligan
Pharmacist U.S.Navy

NOTES RELATING TO STATION NO. 29

about 2 bush of sulph. sponge.
several cluster Serpula.
few Crangon val.
few small anthropods numerous
few " Panopeas few -
Lepidonotus
1 E. Pollicaris
Crepidula plana
1 squirrel hake
1 window pane 1 Bothus.
1 piece of kelp large with Obelia.
2 small squirrel hake.
Membranipera.
20 small stars - E. 1 in to 3 or 4 in.
2 rock eel.
E longicaipus
Crepidula convexa.
Illianassa
Tritia alvi & with longicaipus.
1 small shrimp - (?)
Escarella

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 30 — 1957

Date, Nov. 2 - 1898

Time of day, 11.30 am ; of tide, 1 3/4 hours of ebb

Locality, Narragansett Bay

Exact position, Conanicut North point light, S.E x E 3/4 E. .37 of mile mag

Depth, 5 fathoms

Nature of bottom, Sticky mud.

Dredging instrument used, 7 feet beam trawl

Direction of drift, S.E x E 3/4 E ; distance, 5/8.

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.021 temp., 12.2°C

" at depth of fathoms, "

" at bottom, 1.022 " 13.0°C

Number of salinometer, 7104

Barometer reading, 30.15

State of sky, Blue, cloudy

Direction of wind, S. Dr. ; force, 6

Rain, no —

Direction of surface current, S x Dr. ; 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. G. Davenport U.S. Navy

Name and position of observer,

J. D. Milligan
Pharmacist U.S. Navy

NOTES RELATING TO STATION NO. 30

1 squirrell hake large
1 silver "
1 squilla
Few winter flounders
Several window panes
2 Skates Erinacea.
1 Young spotted flounder
1 small undermined
Few small cunner
Teredo Rock pel
Bugula on old wood.
Sycotyphus } Neucula (l)
Bryozoa } Gangons
Serpula } Mullinea
Hydroid } Tritia (l.)
1 Metridium } 1 Bulla
Botryllus
Clidophera (l)
Callista convexa numerous dead shells
Young sp. carolina. sea robin
Dead shells of Yoldia. tritia
Anomia Mytilus. Clidiopen
Sycotypus nucula. crepidula
Cardium pinulatum (dead)
Eupleura (l)
Pholas costata 1 piece
~~at~~ 50 small stars Forbes 1 in to 5 inches
a few small fish (?) like anchovys
1 Lyonsia Hyalina
1 Cistenides — 1 Young argina pexata
L. Tricerieta
few Anelids 1 Pelia Mutica,
E. Longicarpus — E. Pollicaris

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 31 — 1958

Date, Nov. 2nd 1898

Time of day, 1.30 p.m. ; of tide, 3 3/4 of ebb.

Locality, Narragansett Bay

Exact position, Conanicut Isld North point W. x S. 1/2 S. - 1.37 miles mag.

Depth, 5 fathoms

Nature of bottom, Muddy

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 56° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.020 temp., 12.1° C

" ~~at depth of~~ fathoms, "

water muddy at bottom

" at bottom, 1.025 " 12.7° C

Number of salinometer, 7104

Barometer reading, 30.06

State of sky, Blue Cloudy

Direction of wind, S.W. ; force, 6

Rain, no

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

~~" of bottom " ; force,~~

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

Service to which attached, Fish Commission

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

Name and position of observer, J. D. Mulligan Pharmacist, U.S. Navy

NOTES RELATING TO STATION NO. 31

2 Winter flounders
1 Window pane "
1 Large skate Erinacea,
1 very small " "
5 small silver hake
E. Longicaspus
2 Pelia mutaca
+ 60 Star fish (Forbes) 2 in to 5 in, varies small
Callista Convexa,
Yoldia Tritia
Clidiopera.
Cripidula fornicata.
2 Young P. Carolina
1 " 4 Spot flounder.
2 Crangon
1 small fish like those in 30
Cardium pinulatum (none alive)
Nuculea
Some mollusks alive; some dead shells.
1 Lyonchia Hyalina
1 Young cancer irrorata.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 32 — 1959

Date, Nov. 2 – 1898

Time of day, 1.50 p.m.; of tide, 4 hours of ebb.

Locality, Narragansett Bay

Exact position, Conanicut North point light. S.W. 1/2 W. 2.37 of mile mag

Depth, 5 fathoms

Nature of bottom, Muddy & Shelly

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 56° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.021 temp., 12.2°C

" ~~at depth of fathoms~~, "

" at bottom, 1.024 " 12.6°C

Number of salinometer, 7104

Barometer reading, 30.07

State of sky, Blue - Cloudy,

Direction of wind, S.W.; force, 7

Rain, No

Direction of surface current, S x 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. G. Davenport, USNavy

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

NOTES RELATING TO STATION NO. 32

+ 50 stars 1 m to 5 mesh
2 Window pane flounder, small
1 Dwiler "
1 Med size P. Carolina.
1 Squilla.
1 piece sulphur sponge.
1 Paraspinus.
Few small fish like those in 30 (Probably anchovies)
Clidiopera. - Tritia, Yoldia, Abundant
Eu. caudata, few
few Crangon Vul
Callista - several -
Mulinea lateralis few
Number very small anthropods
Crepidula dead
1 L. Hyolina.
Most of the mollusks empty shell.
1 valve of macoma (?)
Scapharpa transversa dead shell
Small Sycotypus (dead shell)
L. tricerata
Piece of shell of Pholis costata,
Mya (Dead shell)
few rock eel -?
Pelia mutica -
Anelid worms
Eupleura
Mulinea lateralis dead shell
Cardium pinnulatum - Nuclea
1 Pinnixa. species
Many dead shells of these mollusks some two
Small Sycotypus

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 33 — 1960

Date, Nov. 27 1898

Time of day, 2.25 pm ; of tide, 5 hours of ebb

Locality, Narragansett Bay

Exact position, Connecticut North point light N. W., 2.67 of mile mag.

Depth, 4½ fathoms

Nature of bottom, Muddy —

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 56° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.021 temp., 12°

~~" at depth of fathoms,~~ "

" at bottom, 1.025 " 12,5°

Number of salinometer, 7104

Barometer reading, 30.07

State of sky, Blue, Cloudy

Direction of wind, S. W. ; force, 7

Rain, no —

Direction of surface current, S x W ; force, ½ 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, J. D. Milligan Pharmacist USNavy

NOTES RELATING TO STATION NO. 33

250 to 300 stars from 1½ to 6 in.
9 assorted Window pane flounders
3 Winter flounders
1 tautog.
6 small silver brake small.
3 squilla
3 skates (crinacea)
2 Cancer irrorata large
1 Sycotypus,
Crangon - Tritia -
Cleodopua, Yoldia -
Anomea, Callista convexus

note:
A number of dead shells of the more common Molluscs, in most of the hauls, and of varying abundance, in the different species Calista convexa, nearly always dead shells. There are a few live specimens, usually of all the species mentioned, in the different Hauls and in some cases out numbering the empty shells. The names indicate more or

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 34 — 1961

Date, Nov. 2d 1898.

Time of day, 3.10 pm. ; of tide, Slack-water

Locality, Narragansett Bay

Exact position, Warwick Light N. x W. 2.75 of mile mag.

Depth, 4½ fathom

Nature of bottom, Muddy

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 56° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.021 temp., 12.1° C

~~" at depth of fathoms,~~ "

" at bottom, 1.022 " 12.6° C

Number of salinometer, 7104

Barometer reading, 30.05

State of sky, Blue — cloudy

Direction of wind, S. W. ; force, 7

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. Davenport. USNavy

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

NOTES RELATING TO STATION NO. 34

Few winter flounders
" window pane "
Few pieces of sulphur sponge
Some Serpula
1 Skate urinata,
1 Tautog
1 Squilla
Few small fish like those in 30
2 Silver sides
Some Kelp
Over 150 stars size of station 33
1 Rock eel
Crepidula fornicata with eggs.
Sycotypus,
Crepidula plana.
Crangon vulgaris
Callista convexa
Dalga Gurgar (dead shell)
Clidiopera
A few scattering hydroids,
Panopeus
Eupleura caudata.
Piece of mollusk
Tritia. Yoldia
Murina lateralis.
Worm tubes —

Practically the same as 33
1 Syngnathus
1 Cerebratulus

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 35 — 1962

Date, Nov. 2nd 1898

Time of day, 4.00 pm ; of tide, 1/2 hour of flood

Locality, Narragansett Bay

Exact position, Gould Isld. Light S. W x S. 1.50 of mile mag.

Depth, 8 fathoms

Nature of bottom, Muddy

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 56° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.021 temp., 13.0° C

" ~~at depth of fathoms~~, "

" at bottom, 1.023 " 13.2° C

Number of salinometer, 7104

Barometer reading, 30.07

State of sky, Blue-cloudy

Direction of wind, S.W. ; force, 7

Rain, no -

Direction of surface current, N.N.E. ; force, 1/4 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, J. D. Milligan Pharm. USN

NOTES RELATING TO STATION NO. 35

1 large Skate ermacea
1 small "
about 100 Star fish 2 in to 5 inches
Some crangon vulgaris
E. Longicarpus, very numerous
2 small winter flounder
3 Windowpanes - (1 small)
Few Young P. carolina.
Several pipe fish
Hydrachticaca -
Cinders & gravel.
Yoldia
Few small anelids.
E. pollicaris
Tritia, empty shells - dead
Callista Amoy " "
Few Young silver hake
" " Squirrel "
1 Young cancer irroratus, dead
L. triceriata - numerous dead
Literemina litoria few - dead
Few small l. heros - dead empty
Sycotyeus.
Fulga - 1 small - empty
Oideopera few - empty
Pecten ten small few empty.
" " 1 live.
1-4 spot, small.
1 Egg mass, jelly like, small (?)
Few astarte, small yellow -
1 live specimen with small head of
tubellaria conthonyi.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 36 1963

Date, Nov. 2 - 1898.

Time of day, 4.20 pm; of tide, 3/4 hour of flood

Locality, Narragansett Bay.

Exact position, Gould Isld light
D. W 1/4 D. .50 of mile mag.

Depth, 7 fathoms

Nature of bottom, Muddy

Dredging instrument used, 7 feet beam Trawl

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

Temperature of air, 56° Fah therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.021 temp., 12.7°C

~~" at depth of fathoms, "~~

" at bottom, 1.023 " 13°C

Number of salinometer, 7104

Barometer reading, 30.07

State of sky, Cloudy

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

Rain, no

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

~~" of bottom " ; force,~~

Name of vessel, N. Y. 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
Thos. [illegible]

NOTES RELATING TO STATION NO. 36

1 large Skate. Erinacea.
1 small winter flounder.
1 " window-pane. "
2 small 4 spot "
1 squirrel hake small
2 silver " "
E. Longicaepus, very numerous
Several small cancer irrorata,
some crangon,
1 green urchin.
about 70 starfish 2 to 4½ inches
Several large Anelid worms
Astartes. Yellow. (?,) 2 or 3 dead
Some Yoldia.
Cledeopera, numerous, small,
Tritia — few live
Several Literina littoria Few alive
Live eggs of Skate Erinacea,
most of the univalves occupied by
E. Longicaepus.
L. Triceriata, num—
Callista Convexa, numerous small dead shells
1 Trophonia
Few small shells of l. Teres.
Few pecten ten. small.
2 or 3 Thracia (?) sp.
1 dead shell Lucina filosa,
1 live cyclocardia borealis. small

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 37 - 1964

Date, Nov 13 - 98

Time of day, 9.30 am ; of tide, Nearly low water

Locality, Entrance to Block Isld Sound

Exact position, Block Isld North light D. 1/4 E. 2.50 mag.

Depth, 18 fathoms

Nature of bottom, Hard - rock + sand

Dredging instrument used, 7 feet beam trawl

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

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

" ~~of surface~~ water, "

" ~~at depth of~~ fathoms, "

" ~~at bottom~~, "

Density at surface, 1.023 temp., 13.4°C

~~" at depth of fathoms, "~~

" at bottom, 1.023 " 13.6°C

Number of salinometer, 7104

Barometer reading, 30.46

State of sky, Blue - light clouds

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

Rain, No

Direction of surface current, E x S ; force, 1/3 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, J. D. Milligan Pharmacist USNavy.

adv

NOTES RELATING TO STATION NO. 37

Alcyonium carneum, numerous small pieces

A few pieces sulphur sponge different from Clivna sulphurea

2 star-fish Forbes 3 to 4½ inches

½ two inch purple star.

1 ½ one " " "

1 arm of third star - Forbes

9 Cribrella ½ in to 2½ inch

1 Anemone

Few pieces of Bugula with bryozoa

1 fragment of hydroid (?)

1 small small callista convexa

1 shell of L. triceriata with E. Longicarpus

Tritia 2 alive, one with E Longicarpus.

1 Tunicate (?)

Small piece Ammarocium.

Clideoptera - 2 dead shells

~~Evidently regenerated~~

~~Lepidonotus~~

~~1 large empty egg [illegible] [illegible]~~

~~Dead stems of [illegible] hydroid~~

See pages note boxes.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 38 — 1965

Date, Nov. 3rd 1898

Time of day, 10.10 am ; of tide,

Locality, Block Isld Sound

Exact position, Block Island North Lt. E x S. 1.75 miles mag

Depth, 19 fathoms

Nature of bottom, Hard - Sandy

Dredging instrument used, 7 feet beam trawl

Direction of drift, W. x S. ; distance, 5/8 mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 13.6° C

" ~~at depth of fathoms,~~ "

" at bottom, 1.023 " 14.1° C

Number of salinometer, 7104

Barometer reading, 30.46

State of sky, Blue - light clouds.

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

Rain, No

Direction of surface current, 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. G. Davenport. U.S.N.

Name and position of observer, J. D. Milligan Pharmacist USN

see note in Grays book

NOTES RELATING TO STATION NO. 38

6 skates Ionacea
9 varying sizes winter flounder
5 Window panes
2 Young P. Carolina.
1 large squirrel hake
1 small silver "
1 " squirrel "
3 small scup - young
1 med. + 1 small 4 spot flounder.
2 - 18 spine sculpin (?)
Quite a number small squid.
Pandalus - numerous -
1 large empty shell cyprina islandica
Several large pieces of kelp
Piece of cerebrach - rosea
Tritia - few - 1 Yoldia
Anarchis 1 dead shell
Fusus - 1 -
Few l. tricerita with E. Bernhardi
Scraps of clidiopera l. hyalina
2 cancer borealis (Young)
1 shell of cyclocardium borealis.
1 piece of astarte (Sp)
1 brittle star small
About 150 maroon stars 2 to 3 in.
12 Purple stars - varying sizes
both light + dark
1 star fish, Forbes with 2 arms
Evidently regenerated
Lepidonotus
1 large empty egg case of skate
Dead stems of Penaria hydroid

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 39 — 1966

Date, Nov. 3rd 1898

Time of day, 10.50 am ; of tide, 1/4 hour of ebb

Locality, Block Island Sound

Exact position, Block Island North light N. E x E. T 3.25 miles map

Depth, 20 fathoms

Nature of bottom, Hard, sandy

Dredging instrument used, 7 foot beam trawl

Direction of drift, W 1/2 N ; distance, 3/8 mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 13.3°

~~" at depth of fathoms,~~ "

" at bottom, 1.023 " 13.5°

Number of salinometer, 7104

Barometer reading, 30.46

State of sky, Blue - light clouds

Direction of wind, N.N.E ; force, 1

Rain, No

Direction of surface current, No perceptible 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. D. Milligan Pharmacist, USNavy

NOTES RELATING TO STATION NO. 39

1 Window pane
2 silver hake, small
20 squirrel hake
30 Skates - erinacea
3 small squirrel hake
1 young sea robin
1 " scup.
1 E. Bernhardus
Spirobis
Few small green urchins
Some small squid. (dozen)
Fragments of kelp with bryozoa
1 piece of cyprina islandica
Very few pandalus
Tritia alive & with hermits
E. Longicarpus few
L. triceriata alive & with hermits
Few small isopods (idotia sp. (?)
2 empty shells of lucina filosa
2 or 3 small holothurium
1 large cancer borealis
1 small 4 spot flounder
Crepidula fornicata
Dead shell of cyclocardium borealis
about 200 maroon stars. 1 to 2
Very few small purple "
2 - Forbes stars 1 in & 2 inch
1 small nudibranch, doridella (?)
~~[illegible]~~
~~Few [illegible]~~ planaria

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 40 — 1967

Date, Nov. 3rd 1897

Time of day, 11.30 am ; of tide, 1½ hrs after H.W.

Locality, Block Island Sound

Exact position, Block Isld No. light N. E. ½ E 4.50 miles mag.

Depth, 18 fathoms

Nature of bottom, Sand

Dredging instrument used, 7 feet beam trawl

Direction of drift, South ; distance, ½ mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 12.8° C

~~" at depth of fathoms,~~ "

" at bottom, 1.024 " 13.2° C

Number of salinometer, 7104

Barometer reading, 30.46

State of sky, Blue - light clouds

Direction of wind, N. E ; force, 2

Rain, No.

Direction of surface current, N. W. ; force, ½ 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. Donnelly Pharmacist, USN

Few small pandalus

NOTES RELATING TO STATION NO. 40

1 summer flounder
2 squirrel hake
2 silver hake 1 med 1 young
1 winter flounder
1 skate - erinacea
1 window pane (Bothus)
3 very small silver hake
1 young scup.
modiola modiolus.
About a doz pieces of long kelp. laminaria with stones attached, covered with tryozoa and hydroids. (Obelia)
Few small squid,
1 empty egg case. erinacea
Algae with cameria hydroid and tryozoa
Few pecten ten. small & med. size
Few stems of tubuleria couthuyi.
Crepidula fornicata.
1 cancer irrorata
About 3 doz maroon stars
Few very small arbacea
1 pycnogonid
Fragment of sulphur sponge
6 very small purple stars.
2 small Buccinum.
1 cyclodea borealis.
Few E. Longicarpus
Few Bernhardus
Few Capidula plana.
2 Cancer irrorata. small,
Few empty shells of cyclo. borealis
tritia, sea clams. l. triceriata. anomea
1 crucibulum. modiola modiolus
small buccinum. l. heros. Few [illegible]

Bugula
1 young cancer borealis
Lepidonotus fem
Caprella fem

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RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 41 — 1968

Date, Nov. 3rd 1898

Time of day, 12.05 ; of tide, 1 3/4 h. of ebb

Locality, Block Isld sound

Exact position, Block Isld. S.E light E 1/4 N. 3.50 miles mag

Depth, 7 1/4 fathoms

Nature of bottom, gravelly

Dredging instrument used, 7 feet beam trawl

Direction of drift, North ; distance, 1/8 mile

Temperature of air, 54° Fahr. therm. No., 7397

" ~~of surface water,~~ "

" ~~at depth of~~ fathoms, "

" ~~at bottom,~~ "

Density at surface, 1.023 temp., 13.2° C

~~" at depth of fathoms, "~~

" at bottom, 1.023+ " 13° C

Number of salinometer, 7104

Barometer reading, 30.46

State of sky, Blue, light clouds

Direction of wind, N.E ; force, 1

Rain, No —

Direction of surface current, N.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. G. Davenport, U.S.N.A.

Name and position of observer, J. D. Milligan Pharmacist, U.S.N.A.

NOTES RELATING TO STATION NO. 41

about half a peck of coraline
and cancarina hydroids.
A little gravel.
Some small sponge.
12 small purple stars. 1/2 to 2 in.
2 Cribrella.
1 brittle star.
Some small isopods
" " anthropods
Byozoa. plentiful
1 small piece of alcyonium
a very few small squid.
Anachis 1 or 2
Tritia 1 or 2
A few astyris.
2 or 3 small nudibranch doribella
1 Rucoel. Z. angularis (?)
2 Crangon. very small
Spyrobis (some)
a few young cancer borealis,
Astrangia 1 piece

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 42 — 1969

Date, Nov. 3 - 1898

Time of day, 1.35 pm ; of tide, 3 hours of ebb

Locality, N. East of Block Island.

Exact position, Block Isld N. E. light E x N. 6 miles mag.

Depth, 20 1/4 fathom

Nature of bottom, Sand, gravelly

Dredging instrument used, 7 feet beam trawl

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

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

" of surface water, "

" at depth of fathoms, "

" at bottom, 56° negretti "

Density at surface, 1.023 temp., 13.3° C

~~" at depth of fathoms,~~ Sigsbee cup

" at bottom, 1.023 " 13.2° C

Number of salinometer, 7104

Barometer reading, 30.46

State of sky, Blue - light clouds

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

Rain, no —

Direction of surface current, 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, Lt. Comdr R. G. Davenport, U.S.Navy

Name and position of observer, J. D. Mulligan Pharmacist, USN

NOTES RELATING TO STATION NO. 42

10 18 spine sculpins
Several young sea robins
" " sculp.
16 Winter flounders
1 4 spot "
2 small ermacea
6 Window pane
16 pecten ten. various sizes
Capridula fornicata
Pandalus numerous some with egg.
Hydroid tubularia cutaq.
Small quan. pineria hydroid
& coralina
A few crucibulum striatum
some small pieces of alcyonium.
Young silver hake (?)
2 young squid.
1 deep sea anemone
Few young silver hake (?)
Cyclocardia borealis.
Sypho pyrnea - several
some alive; some with hermits
Berrichardus
1 (?) Eupadorus
+ 30 Maroon stars 1/2 to 2 in
2 purple stars. 1 in to 3 in
Few broken shells.
1 small anemone
Empty shell mod. modiolus
" " cyprina islandica
1 live l. heros
Several colonies of what looks
like coarse Bugula

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 43 — 1970

Date, Nov. 3rd 1898

Time of day, 2.20 p.m. ; of tide, 4 hours of ebb.

Locality, N. E. of Block Island.

Exact position, Pt. Judith Light N. W. 1/2 N. — 7.25 miles mag

Depth, 20 fathoms.

Nature of bottom, Sandy, Gravelly

Dredging instrument used, 7 feet beam trawl

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

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

" of surface water, "

" at depth of fathoms, "

" at bottom, 56° Negretti "

Density at surface, 1,023 temp., 13.1°

~~" at depth of fathoms,~~ sigsbee cup

" at bottom, 1.023+ " 13.2°

Number of salinometer, 7104

Barometer reading, 30.46

State of sky, Blue - light clouds

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

Rain, no —

Direction of surface current, E x S ; force, 3/4 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. U.S.Navy

Name and position of observer, J. D. Milligan Pharmacist. U.S.Navy

NOTES RELATING TO STATION NO. 43

4 Rusty flounder
1 four spot "
3 window pane "
Sand dollars. Half peck = averaging small
4 Pecten ten-large -
few young sea robin
4 " scup
" silver ~~[illegible]~~ (?)
few Pandalus
Skate ernacia (?)
6 Astarte castanea
a little coraline & algae
Few Bernhardus
Few tritia
Sypho pygmea
Squid.
1 young sea clam
1 very young flounder (?)
2 small pieces branch. coral (?)
1 young cancer borealis.
few pieces of alcyonium, small
1 or 2 crangon, small.
2 doz maroon stars
1 - 1/2 inch purple star (?)
2 .

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. ~~44~~ - 1971

Date, Nov. 3 - 98

Time of day, 3.10 pm ; of tide, 5 hrs of ebb

Locality, N. E of Block Island

Exact position, Pt. Judith Light N. N. x N 1/2 N. 6.50 miles mag

Depth, 16 fathoms.

Nature of bottom, Hard sand.

Dredging instrument used, 7 foot beam trawl

Direction of drift, E 3/4 N. ; distance, 5/8 mile

Temperature of air, 56° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, 56° Fahr. negretti "

Density at surface, 1.023 temp., 13.3° C

" at depth of fathoms, Digby cup "

" at bottom, 1.023+ " 13.7° C

Number of salinometer, 7104

Barometer reading, 30.42

State of sky, Blue light clouds

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

Rain, no

Direction of surface current, E x S ; force, 3/4 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, J. D. Milligan Pharmacist, USNavy

NOTES RELATING TO STATION NO. 4 4

4 window panes flounder
1 rusty "
1 winter "
14 young sea robin
3 skates erinacea
3 " spotted spines in middle of back
size of erinacea

several young scup.
1 young silver hake
1 " squirrel "
a few small squid.
small number of pandulus
1 quart of sand-dollars
6 pecten ten 3 small 3 large
Lunacea heroe.
L. triceriata occupied by Bernhardi
a few tritia
Capsidula plana
fornicata.
1 stem of hydroid-long- (?)
9 maroon stars less than 1/2 in. to 2 in.
2 crucibillum striatum - 1 with eggs -

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 45 1972

Date, Nov. 3rd 1898

Time of day, 3.55 ; of tide, low water

Locality, N.E. of Block Island

Exact position, Pt. Judith light W½ N. 8.58 miles

Depth, 17½ fathoms

Nature of bottom, Sands

Dredging instrument used, 7 foot beam trawl

Direction of drift, E x N.; distance, 3/4 mile

Temperature of air, 56° Fahr therm. No. 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, 55° Fahr Negretti.

Density at surface, 1.023+ temp., 13.° C

" at depth of fathoms, lighter cup "

" at bottom, 1.024 " 13.2° C

Number of salinometer, 7104

Barometer reading, 30.41

State of sky, Blue - lighter clouds.

Direction of wind, W.S.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. Davenport, USNavy

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

NOTES RELATING TO STATION NO. 45

5 Winter flounders
12 Window panes "
1 silver hake medium (?)
3 squirrel "
3 Skates erinacea
1 skate spotted (?)
few small sand dollars.
" pandalus
several pieces of suberites compacta
1 young silver hake (?)
3 " sea robins,
a few small squid.
Bernhardus. several in
Tritia & triseriata shells
4 Buccinum unterum
1 small piece branch coral (?)
about 24 maroon stars. 1 to 2 m

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 46 - 1973

Date, Nov. 4th 1898

Time of day, 8.30 am ; of tide, 3d half flood

Locality, S. W. of mouth of Pekonnet River

Exact position, Brenton's reef l. ship N. W. of 2½ miles mag.

Depth, 18 fathoms

Nature of bottom, Sandy - shelly

Dredging instrument used, 7 feet beam trawl

Direction of drift, S. E. x E ¼ E ; Distance, 5/8 mile

Temperature of air, 58° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0273 temp., 13.3

~~" at depth of fathoms, "~~

" at bottom, 1.0273+ " 14° C

Number of salinometer, 7104

Barometer reading, 30.44

State of sky, Blue hazy.

Direction of wind, Calm ; force, —

Rain, no

Direction of surface current, N. 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. G. Davenport USN

Name and position of observer, J. A. Milligan Pharmacist USN

NOTES RELATING TO STATION NO. 46

7 squirrel hake -
4 Window panes -
Several young sea robin
Few Pandalus.
5 Skates - ernacea, rather small
Several young silver hake (?)
2 rusty flounders
1 four spot "
1 winter "
Few Crangon
1 winter skate.
Few small squid
Few sand dollars
Few empty shell of cyprina - islandica, with stems of tubularia couthiana
Tritia - numerous
Neptuna pymea - few -
E. Bernhardus } in Tritia shells
E. Longicarpus }
Suberites compacta.
Few young hake - squirrel (?)
few young Buccinum small
Nearly 100 Maroon stars. 1/4 in. to 3 inches
1 valve of cyclocard. borealis
Hydractnea
Capridula plana.
Cancibulum
L. Triceriatum with hermits
1 valve, small oyster.
Few small shrimp, name (?)

(Parasite on flounder
D.Y. (?)
Winter skate had parasites

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 47 — 1974

Date, Nov. 4-95

Time of day, 9.15 ; of tide, 4th h of flood

Locality, S.W. of mouth of Rekomer river

Exact position, Rekomer light

E. N. E. 2.67 miles nay.

Depth, 14 fathoms

Nature of bottom, Sandy

Dredging instrument used, 7 foot beam trawl

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

Temperature of air, 59° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 13.3° C

~~" at depth of fathoms, "~~

" at bottom, 1.024 " 13.3° C

Number of salinometer, 7104

Barometer reading, 30.45

State of sky, Blue, hazy

Direction of wind, Calm ; force,

Rain, no —

Direction of surface current, N.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, J. D. Milligan Pharmacist, USNavy

NOTES RELATING TO STATION NO. 47

4 winter flounders
1 very large summer flounder
1 rusty flounder
1 squirrel hake.
4 skates Erinacea
2 winter " (?)
1 peck sand dollars
few young P. Carolina
Fragment of sponge
a little Algae
Spirobin
few silver hake (?)
few Pandalus
Capridula plana
1 shell of littorina littoria with hermit
1 young cancer (?)
Tritia. small number
Few Crangon
about 2 doz maroon stars 1/2 to 3 in
1 or 2 young Buccinum.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 48 — 1975

Date, Nov. 4th 98.

Time of day, 9.55 ; of tide, 4½ h of flood

Locality, S. m mouth of Sakonnet [illegible]

Exact position, Sakonnet light.

S. x E. ½ — S. 1.67 miles mag

Depth, 9½ fathoms

Nature of bottom, sand — gravel

Dredging instrument used, 7 feet beam trawl

Direction of drift, N x E. ; distance, ½ mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 13.°

~~" at depth of fathoms,~~ "

" at bottom, 1.023 " 12,5°

Number of salinometer, 7104

Barometer reading, 30.45

State of sky, Blue

Direction of wind, Calm ; force, 0

Rain, No —

Direction of surface current, N x E ; force, ½ 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, [illegible] Milligan Pharmacist. USNavy

NOTES RELATING TO STATION NO. 48

2 [illegible] flounders.
16 squirrel hake -
1 small sea-raven -
1 star-fish, Forbesii.
7 skates erinacea
3 sculpins.
1 young hake - squirrel
2 " cunner.
1 small cancer
Few sand dollars.
1 Libinia -
Chalina doz bunches
2 Maroon star {1-1/2 in / 1-2 in -
2 E. Bernhardus -
few E Pollicaris. few -
Buccinum undatum - small.
E. Longicarpus - few
Eurosalpinx
L. Triceriata. few
* L. heros few
Tritia
1 pipe fish.
Few crangon
1 anachis.
1 E. annulipes.
1 Sycotycus small
2 small Petia
Bunch of sculpin eggs

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 49 — 1976

Date, Nov. 4 – 98

Time of day, 10.30 ; of tide, Heavy High rate

Locality, In sakonnet river

Exact position, Church Point N. W. 1/2 N .75 of mile mag.

Depth, 5 fathoms

Nature of bottom, Gravelly

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 60° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.022+ temp., 12.0°C

~~" at depth of fathoms,~~ "

" at bottom, 1.023 " 12.1°C

Number of salinometer, 7104

Barometer reading, 30.45

State of sky, Blue

Direction of wind, Calm ; force,

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. Davenport. USNavy

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

NOTES RELATING TO STATION NO. 49

1 doz skates erinacea
1 large & 1 small squirrel hake
2 Arctic flounders
2 window panes
1 Cunner
1 Cluster of Chalina
several young fish, slender 1 1/2 in
Few crangon.
1 E. Longicarpus
1 E pollicaris
E anulipes several
1 Capridula plana
1 Fornicata
few Balanus
1 Neverita with hermit
1 Cyclotycus " "
2 1/2 in. star fish (?) marro
Littorina littoria
Tritia
Hydrach tinea
1 L. vinctia (?)
1 valve of Yoldia
1 young fish
3 " " resembling bass
1 Chiona tenella.

RECORD OF DREDGING,

TEMPERATURE AND DENSITY.

Station No. 50 1977

Date, Nov. 4th 1898

Time of day, 11. am ; of tide, High Water

Locality, In sekonet riv

Exact position, High Hill point

N. E ½ N .67 of a mile

Depth, 4 3/4 fathoms

Nature of bottom, Rocky

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 60° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.022 temp., 12°C

" ~~at depth of~~ fathoms, "

" at bottom, 1.023 " 12.4°C

Number of salinometer, 7104

Barometer reading, 30.45

State of sky, Blue

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

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. Davenport, U.S.N.A.V.

Name and position of observer, J. D. Milligan Pharmacist U.S.N.A.V.

NOTES RELATING TO STATION NO. 5.0

Few squirrel hake
1 winter flounders - 2 small
2 skates - erinacea.
Few dead shells Balanus, with
Membranipora & serpula
Cepidula fornicata
" plana.
Escharella
E Pollicaris several
E Longisaspos few
Lunatia heros.
Neverita
1 Libinia
1 Triceriata
2 Pelia mutica
1 ~~Fen~~ Argina & 1 empty shell
a few small scapharca
1 Eurosalpinx.
Hypnachtinea.
1 Fulgar
1 regenerating etc. Forbes
Few lepidonotus
1 Clymenella
1 Gamarus sp.
Cupleura caudata dead shell