6028 - 6075

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Jy. 1898

Numbers 6028 to 6075

6028

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 100 — ~~2028~~

Date, Nov. 15 - 1898

Time of day, 12 m ; of tide, 4 h of ebb.

Locality, Off Pt. Judith Neck

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

Depth, 6 1/2 fathoms

Nature of bottom, Hard

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 45 therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 11.5°C

" ~~at depth of fathoms,~~ " ~~2~~

" at bottom, 1.023 " 12.°C

Number of salinometer, 7104

Barometer reading, 30.08

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. G. Davenport USN

Name and position of observer, J. D. Millegan Chas. USN

NOTES RELATING TO STATION NO. 100

3 Rasa Gomacea
8 Spiegel Lake
1 other " ?
4 – 18 Spine sculpin.
1 Window Lane of Sunder
Few Sand Dollar
E Longicamp in tritia &
L. litteria.
Diaphasia. Spirobis red algae

no stars

Bottom very rocky. short dredge in consequence

6029

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# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

~~2029~~

Station No. 101

Date, Nov 15th 1898

Time of day, 1.05 pm ; of tide, 5h 5m yelb

Locality, Off Pt. Judith neck

Exact position, Pt. Judith Light. S.W. 1/2 S. 1.63 miles mag.

Depth, 6 1/2 fathoms

Nature of bottom, Hard rocky

Dredging instrument used, 7 feet beam trawl

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

Temperature of air. 46° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 11.5°

~~" at depth of fathoms, "~~

" at bottom. 1.023 " 12°

Number of salinometer, 7104

Barometer reading, 30.10

State of sky, Blue

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

Rain, No

Direction of surface current, Slack ; force, water

~~" 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, USNRC

Name and position of observer, J.W.M. Ph. USNRC

NOTES RELATING TO STATION NO. 101

Red algae
Bryozoa numerous.
Scraps of sulphur Sponge
Few crangon. Spirobis
Small cribrella. number
Cap. fornicata
Diaphasia = Hydrallmania
Kelp with obelia
Delleseria
Coraline.
1 sand dollar
Urosalpinx
E. Longicarpus in l. littoria
1 small silver fish (?)
Small Mytilus shells, few
1 small cumma
Young sea robin.
Anachis.

Bottom very rocky. Trawl taken in formerly

6030

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# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 102 ~~2030~~

Date, Nov. 15, 1898

Time of day, 1.18 ; of tide, 5h 18m ebb

Locality, Off Pt Judith beach

Exact position, Pt Judith Light S. W x W. 1.12 mile mag.

Depth, 11 fathoms

Nature of bottom, Very rocky

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 46 therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 12.0° C

~~" at depth of fathoms,~~ "

" at bottom, 1.023 " 14.1° C

Number of salinometer, 7104

Barometer reading, 30.10

State of sky, Blue

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

Rain, no

Direction of surface current, Slack water ; force,

~~" of bottom " ; force,~~

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

Service to which attached, Fish Hawk

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

Name and position of observer, J. W. Milligan Boatswain's Mate

NOTES RELATING TO STATION NO. 102

1 Goose fish.
~~Few~~ small cunners, numerous
5 ~~several~~ pieces of astrangia
Few pieces of sulphur sponge
Red algae
Brittle star, several
Scyonia tenella.
Diaphasia ?=Hydrallmania
Several Cribrella,
Mactra.
Alcyonium, few small pieces
Anachis -
Young cyclocardia.
Few sand dollars.
Broken shell of anomea,
Bryozoa
Spirobis,
few small annelids

Bottom very rocky.
Trawl taken in prematurely

643 6031

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 103 ~~2031~~

Date, Nov. 15 – 1898

Time of day, 1.35 ; of tide, 5h 35m of ebb

Locality, East of Pt. Judith Light House

Exact position, Pt Judith Light
E x S 1 p. 50 mile mag

Depth, 9 fathoms

Nature of bottom, Very rocky

Dredging instrument used, 7 feet beam trawl

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

Temperature of air, 46° Fahr therm. No., 7397

" 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 " 12.° C

Number of salinometer, 7104

Barometer reading, 30.10

State of sky, Blue

Direction of wind, N. W ; force, 3

Rain, No

Direction of surface current, Slack water ; 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. Comm.
R. G. Davenport, USNRS

Name and position of observer,
J. D. Milligan
Ph. Nonan

NOTES RELATING TO STATION NO. 103

numerous cumners
Cap. fornicata - live
1 young scup.
Red algae
Bryozoa
Spirobis.
Few cribrella small
E. longicarpus in urosalpinx
Dead shells of C. fornicata &
Cyclocardia
Fragment of sulph. sponge
Anachis
Tritia with E. longicarpus

Trawl torn,
Very rocky bottom.

643 6032

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 104 — ~~2032~~

Date, Nov. 15 – 98

Time of day, 1.50 pm ; of tide, 5 h 50 m of ebb

Locality, South of Pt. Judith

Exact position, Pt. Judith Light. N x E, 75 mile mag

Depth, 6 3/4 fathoms

Nature of bottom, Very rocky

Dredging instrument used, 7 feet beam trawl

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

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 11.2

~~" at depth of fathoms, "~~

" at bottom, 1.023 " 11.8° C

Number of salinometer, 7104

Barometer reading, 30.10

State of sky, Blue

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

Rain, No

Direction of surface current, Slack water ; 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, USN

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

Dredgetown

NOTES RELATING TO STATION NO. 104

Red Algae with spirobis &
Bryozoa & pennaria hydrom
Small amphipods, few
Pelea sp.
Few small cumaceus
" " cribrella
Lepidonotus.
Anachis Astyrus
1 small piece sea-pork

6033

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# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 105 — ~~2033~~

Date, Nov. 15 - 98

Time of day, 3.03 ; of tide, Low water

Locality, D. W. of Pt. Judith.

Exact position, Pt. Judith Light E. N. E. ¼ .75 mile mag.

Depth, 5 fathoms

Nature of bottom, Stony.

Dredging instrument used, Dredge

Direction of drift, W. & N. ½ N. ; distance, 3/8 mile

Temperature of air, 49° 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 " 11.1°C

Number of salinometer, 7104

Barometer reading, 30.10

State of sky, Blue. cloudy

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

Rain, no

Direction of surface current, E. ; 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 Commr R. G. Davenport. USN

Name and position of observer, [illegible] Pt. USN

NOTES RELATING TO STATION NO. 105

Astyris
Chiton rubra.
Urosalpinx,
Cribrella few
Algae & Bryozoa, numerous
scrap of rubp. sponge
Spirobis
Jeroids. few
few Cumaceans small
Purple star
Small pieces of sea pork
Some kelp.
Membranipora
2 Forbesii stars 1 inch
few idotea
Coralline plentiful
few Cammarus
Small panopeus
Urosalpinx with hermit crab
Tritia with E. Analepes
Anachis numerous alive &
occupied by hermits
B. tenebrosa (?)
3 Purple stars 2. 1 in
1 or 2 Fucus (?)

6034

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 106 ~~2034~~

Date, Nov. 15, 98

Time of day, 7.20 ; of tide, 1/2 hr of flood

Locality, Off South Point of Breakwater

Exact position, Pt. Judith Light

E x N. 1.50 miles mag.

Depth, 6 1/4

Nature of bottom, Gravelly & Sandy

Dredging instrument used, Dredge

Direction of drift, N x S. 1/2 S ; distance, 1/4 mile

Temperature of air, 47° 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 " 10.3°C

Number of salinometer, 7104

Barometer reading, 30.10

State of sky, Blue light clouds

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

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. Comm. R. G. Davenport, USNRC

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

NOTES RELATING TO STATION NO. 106

Gravel, sand
Red & brown algae } abundant
Coralline
Leptoclinum albidum.
Scraps of sulph. sponge
Bryozoa plentiful.
Isopods - number.
Pelia, several
Nereids sp. several
L. tenebrosa (?)
Several pieces of sea pork.
Few cribrella.
Small purple stars 1 to 2 1/2 in
~~[illegible]~~ Young cancer borealis
Small crookers
Lepidoneters. Idotea
Crangon - Anachis
Haromathoe sp. (?)
E. anelepis
Rock cel. Z.
L. tricerata

6035

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 107 ~~2035~~

Date, Nov 15

Time of day, 2.40 ; of tide, 40th of flood

Locality, West of Pt. Judith.

Exact position, Pt. Judith Light E 1/2 S. 2.25 miles mag

Depth, 7 fathoms

Nature of bottom, Sandy & gravelly

Dredging instrument used, Dredge

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

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 11.0°

" at depth of fathoms, "

" at bottom, 1.023 " 10.4°

Number of salinometer, 7104

Barometer reading, 30.19

State of sky, Blue light Cloud

Direction of wind, N.W ; force, 4

Rain, no

Direction of surface current, E ; force, 1/2 Knott

" 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. 107

Sandy about same as preceding
Sporobus, Algae, Nerids
L. tricirrata, Mactra,
Isopods Young cancer irroratus
Hemathoe, Crangon Bryozoa
Intia, Young cancer borealis
Cap. formata & glacia
Sand dollar
Astyrus, L. tenebrosa (?)

NOTES RELATING TO STATION NO. 107

Sandy about same as preceding
Sporobus, Algae, Neriids
L. tricercata, Mactra,
Isopods Young cancer irroratus
Hemathoe, Crangon Bryozoa
Tritia, Young cancer borealis
Cap. formata & glacia
Sand dollar
Astyrus, L. tenebrosa (?)

6036

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 108 ~~2036~~

Date, Nov. 15-98

Time of day, 3 pm ; of tide, 1 h. of flood

Locality, West of Pt. Judith.

Exact position, Pt. Judith Light

N x N 3/4 N 3 miles mag.

Depth, 5 3/4

Nature of bottom, Gravel + Sand

Dredging instrument used, Dredge

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

Temperature of air, 47° 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 " 10.1°

Number of salinometer, 7104

Barometer reading, 30.11

State of sky, Blue light - clouds

Direction of wind, N.W ; force, 4

Rain, no

Direction of surface current, E ; 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 Comm

R. G. Davenport. Nsm

Name and position of observer,

J. D. Milligan

Pharmacist Nsm

NOTES RELATING TO STATION NO. 108

Chiona - pieces numerous
Pelia. Crangon.
C. Fornicata & plana
Hydrastinea
E. Bernhardus in l. heros
Isopods. Hadea.
L. tricerata with E. longicarpus
Empty skate egg.
Coralline & Bryozoa
Red algae
small cancer irrorata
" " boreales
Neverita shell.
Cribrella astarte castanea
8 Forbesii from 1/2 to 2 1/2 inches
L. tricerata. Nereids. sp.
Few small cumacea
numerous small amphipods
1 small Grubbyin

6037

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# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 109 — ~~2037~~

Date, Nov. 15. 1898

Time of day, 3.15 pm ; of tide, 1¼ h of flood

Locality, West of Pt. Judith.

Exact position, Pt Judith Light. E x S. 3.75 miles mag

Depth, 5¾ fathoms

Nature of bottom, Gravel & sand

Dredging instrument used, 10 feet Trawl

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

Temperature of air, 47° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, ~~1.023~~ "

Density at surface, 1.023 temp., 10.7° C

" at depth of fathoms, "

" at bottom, 1.023 " 10.8° C

Number of salinometer, 7104

Barometer reading, 30.11

State of sky, Blue light Cloud

Direction of wind, N W ; force, 4

Rain, no

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

" 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. Dantzler U.S.N.

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

NOTES RELATING TO STATION NO. 109

2 Squirrel hake
2 Winter flounders
1 18 spine sculpin
3 l. heros. lin
E. Bernhardus
Anemone. Lepidonotus several
Algae, Bryozoa, & Coralline
Small cunners, Spirobis
Few Crangon
Small pieces of sea pork
Leptoclinium
L. Cinebroas = L. Vinata abundant on kelp
1 Cancer borealis young.
1 Green urchin
Cribrella. Anachis shells
5 Forbes stars 1 to 2 ma
W purple stars
Doblea. Eurosalpinx with 5 lingi
Pelia. Mactra young
Tritia, astarte castanea.
E. Anelepar
Astyrus.

Very rocky bottom, Trawl fouled & had to be hauled

6038

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 110 — ~~2038~~

Date, Nov. 15 — 98

Time of day, 3.30 ; of tide, 1½ hr of flood

Locality, West of Pt. Judith.

Exact position, Pt Judith Light E. 3/4 S. 4.50 miles mag

Depth, 5 fathoms.

Nature of bottom, Rocky

Dredging instrument used, 10 feet beam trawl

Direction of drift, S.W. ½ W ; distance, 3/8 mile

Temperature of air, 47 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 " 10.9°C

Number of salinometer, 7104

Barometer reading, 30.11

State of sky, Blue, light-clouds

Direction of wind, N.W ; force, 4

Rain, No

Direction of surface current, E ; force, 1/4 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. Comm. R. G. Dunnigan, Usnam

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

NOTES RELATING TO STATION NO. 110

Kelp with L. tenebrosa (?)
Bryozoa. Gralline
Few small ~~[illegible]~~ nudibranchs eggs
Red & brown Algae
Few small cunners
5 Purple stars. ~~[illegible]~~ 1 in to 2 1/4
Rock eel. Z (?)
Spirobis,
1 Forbesii star. About mid

6039

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 111 — ~~2039~~

Date, Nov. 16-98

Time of day, 8.55 am ; of tide, High water

Locality, ~~Cast~~ Nassau Juncett & Bay

Exact position, Castle Hill Light,

N.N.E. - 7/10 mile mag

Depth, 10 to 20 fathoms

Nature of bottom, Hard

Dredging instrument used, 7 feet beam trawl

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

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.022+ temp., 12.2° C

~~" at depth of fathoms, "~~

" at bottom, 1.023 " 12.0° C

Number of salinometer, 7104

Barometer reading, 30.26

State of sky, Blue - hazy

Direction of wind, N.W ; force, Light

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. 111

1 Winter skate
Several winter flounder
few window pane
Ser. Raia erinacea
1 - 18 spine sculpin
1 good sized cunner
1 young sea robin
1 squirrel hake
Cardiacum pinnulatum
Pipe fish
Pelia Mutica, Tritia
E. Longicaipus in tritia & L. tricinata
Few Crangon.
10 Maroon stars 2 to 4 inches
1 Pandulus annulicornis

6040

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 112 — ~~2040~~

Date, Nov. 16th 1898

Time of day, 9.35 am; of tide, 3/4 h of ebb

Locality, Narragansett Bay

Exact position, Castle Hill Light S. E. 3/8 E. .12 of mile mag.

Depth, 26 Fathoms

Nature of bottom, Hard smooth bottom

Dredging instrument used, 7 feet beam trawl

Direction of drift, S. W. ; distance, 3/8 of 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, 1.023+ " 11.0 C

Number of salinometer, 7104

Barometer reading, 30.27

State of sky, Blue hazy

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

Rain, no

Direction of surface current, 0 ; force, 0

~~" of bottom " ; force,~~

Name of vessel, US 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. 112

Crangon numerous
Squirrel hake several
Raia Erinacea. 1 Conger eel
~~Nautic flounder~~
1 Windowpanes, Serpula
Pandalus numerous.
Hyppolite. Panopeus
1 Cunner Red Algae.
Diaphasia? Sporobis
Lammeria Bryozoa.
Penaria hydroid. Coralline.
Old skate egg with hydroid
1 Brittle star. Lepidonotus
Cancer borealis. Cynthia carneal?
Hydroids, small nudibranch several
Modiola Mod. shell. Cribrella
Sponge. Heteromysis formosa.
Balanus. Sea pork
Purple stars small, 1½ to 4 in
Idotea Amphipods
Caprella Young grubby
Pipe fish, 1 small pecten tenuis
1 mottled rock eel. (?)
Anemone. Sp. nebridian
E. Fongicarpus in tritia

6041

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 113 — ~~2041~~

Date, Nov 16-98

Time of day, 10.10 am ; of tide, 1½ h. of ebb.

Locality, Narragansett Bay.

Exact position, Rose Isld Light

N x E. ¼ E. .7 of mile mag.

Depth, 23 fathoms

Nature of bottom, Smooth, hard

Dredging instrument used, 7 feet tram trawl

Direction of drift, S.S.E. ¼ E. ; distance, 3/8 of mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.022 temp., 16.

" at depth of fathoms, "

" at bottom, 1.023 " 12.2°

Number of salinometer, 7104

Barometer reading, 30.28

State of sky, Blue hazy

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

Rain, No

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

Name and position of observer,

J. J. McGuire

Pharmacist, USNavy

NOTES RELATING TO STATION NO. 113

3 Raia Ermacea
8 squirrel hake
1 young silver hake? 1 Red algae
1 cancer borealis. large
1 " " irroratus ones. young
Panopeus. plentiful Pandalus with eggs
Crangon & hyppolite plentiful
Young cancer borealis
small arbacia. Diaphasia plentiful
Spirobis. Chondrus in fruit.
1 large sciona tenella in bottle
1 small buccinum. Bryozoa
Cynthea carnea. Anomea acculeata
small membranipera, Nitridium
Cribrella. Crepidula plana.
Obelia. Remnants of Bugula
Shells of cyclocardia
Modiola corrugata ?, 1 pipe fish
1 young sea robin! Brittle stars
1 small green urchin
Dead shell of pecten ten.
Botryllus. Mod. Modiolus.
2 Purple stars 1/2 to 2 in.
Lepidonotus. small undibranchs small
anachis. Few amphipods
E. Longicarpus in tritia
Idotea. Tritia alvi.
1 conger eel small

6042

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 114 — ~~2042~~

Date, Nov. 16 – 98

Time of day, 11. am. : of tide, 2 h. of ebb.

Locality, Narragansett Bay

Exact position, Gould Isld Light
S.W. S. W. 1.28 mile mag.

Depth, 9 3/4.

Nature of bottom, Muddy & shelly

Dredging instrument used, 7 feet brown trawl

Direction of drift, S.W. 3/8 S. ; distance, .26 of mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.021 – + temp., 10.8° C

~~" at depth of fathoms, "~~

" at bottom, 1.023 " 11.° C

Number of salinometer, 7104

Barometer reading, 30.28

State of sky, Blue. Lt. clouds.

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

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, USNavy

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

NOTES RELATING TO STATION NO. 114

3 Raia Erinacea - 1 small.
2 Cancer irroratus.
1 - 4 spot flounder
3 window pane
Shells of mya
Lucina filosa.
1 large cycotypus lux
1 " hake.
numerous Astarte yellow (?) ~~[illegible]~~
Pandalus. Astarte undatum.
1 young squid hake
1 " silver " (?)
Oyster shells - tritia
L. littoria. Clidiophora.
Yoldia. cyclocardia. Callista convex
E. in Longicarpus in tritia and
l. triceriata, l. littoria.
+ 100 Forbesii stars.
1 large pipe fish - 1 trophonia
Cardium pinnulatum
Lux Yoldia, tritia, cyclocardia.
l. triceriata. nassa vivex (?)
Few Anelids. 1 young cancer irroratus
Crangon few. Cistenides
Few Idolea. ~~as, 7~~

6043

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 115 — ~~2043~~

Date, Nov. 16 - '98 -

Time of day, 11.35 am ; of tide, 2 1/2 h. of ebb.

Locality, ~~Narragansett~~ Bay.

Exact position, Light N. pt. Canonicut - Isld
W. N. W. 1/8 W. 2.50 miles mag.

Depth, 15 fathoms

Nature of bottom, muddy, shelly

Dredging instrument used, 7 feet beam trawl

Direction of drift, S. W. 5/8 D. ; distance, .3 of mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.021 temp., 10.1° C

~~" at depth of fathoms, "~~

" at bottom, 1.022+ " 10.5° C

Number of salinometer, 7104

Barometer reading, 30.26

State of sky, Blue light clouds

Direction of wind, Calm ; force, ~~no light~~

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 USNavy

Name and position of observer, J. W. Milligan
Ph. USN

NOTES RELATING TO STATION NO. 115

2 Raia erinacea
2 squirrel hake
1 conger eel -
1 Holothurian
1 squilla.
3 Cancer borealis
3 " irroratus
for bush. Forbes stars.
Yoldia oyster shells. 1 pecten lens.
Mya. Clidiophora. Yellow astarte
Venus. Tritia. Callista
E. Longicarpus in tritia + l. littoria
l. triceriata, lucina filosa
Modiola corrugata (?) Cap. fornicata
Few aurelids 1 young sea robin
Nucula. Crangon plentiful
Peryploma, Rock eel. (?)
Cardium pinnulatum shells
Yoldia alive, neverita with E.
longicarpus, Few cerebrach. sp.
nassa vivex (?)

Trawl fouled the bottom. Had to take it up 6044

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 116 — ~~2044~~

Date, Nov. 16 – 1898

Time of day, 11.55 Am; of tide, 3 h. of ebb.

Locality, Narragansett Bay.

Exact position, Sand point light N.N.E. 3/8 E. 1.37 miles mag.

Depth, 18 fathoms

Nature of bottom, Clayey

Dredging instrument used, 7 feet beam trawl

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

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.020 temp., 10.1°C

~~" at depth of fathoms, "~~

" at bottom, 1.022 " 11.0°C

Number of salinometer, 7104

Barometer reading, 30.25

State of sky, Blue light clouds

Direction of wind, Calm; force,

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, USN

Name and position of observer,

J. D. Milligan
Pharmacist USN

NOTES RELATING TO STATION NO. 116

1 ♂ Cancer irroratus
2 " borealis,
number of pandalus.
1 Latinia, Pelia
1 sycotypus large.
Mus shell. Callista. Astarte radiata
Few Anelids. Tritia
Oyster shells. Capridula shells
Brittle star. Small perlin lin.
Sev. nitridium
2 young squirrel hake.
Several large clusters of chalina
Lepidonotus. Crangon
Rock ul ? Bryozoa.
Anomea aculeata.
2 tubes of p. oculifera (?)
Cynthea carnerum (?)
a little hydroid
Few Anomea shells. Spirobis

6045

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 117 — ~~2045~~

Date, Nov. 16—1898.

Time of day, 1.14 P.M.; of tide, 4½ h of ebb

Locality, Narragansett Bay

Exact position, Sand Point Light.

N x W. 3/8 W. .68 mile mag

Depth, 13½ fathoms.

Nature of bottom, Soft, Parts hard.

Dredging instrument used, 7 feet beam trawl

Direction of drift, S. 7/8 W.; distance, .37 of mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.020 temp., 10.2° C

~~" at depth of fathoms, "~~

" at bottom, 1.022+ " 11.° C

Number of salinometer, 7104

Barometer reading, 30-21

State of sky, Blue, light clouds

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

Rain, No.

Direction of surface current, S.S.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, USNRC

Name and position of observer,

J. D. Milligan

Pharmacist, USNRC

NOTES RELATING TO STATION NO. 117

9 Raia Erinacea, few squirrel hake
1 Blue crab,
1 4 spot flounder small
3 window pane "
Cluster of Chalina, Sea-weed.
Modiola Corrugata.
Crangon. Pandalus
L. triceriata - Yoldia
Anemone, metridium
C. Longicarpus Tritia
Botryllus Clidiophora.
Nucula. Few pandalus.
Callista Corvera.
Shells of clidiopera, mulinea
Cap. fornicata, Few anelids.
125 Forbesii stars.
E. Longicarpus in tritia & l. littoria
Rock eels ?,
Liv Yoldia, tritia - callista.
Lepidonotus.

6046

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 118 — ~~2046~~

Date, Nov. 16-98

Time of day, 1.40 pm ; of tide, 4 3/4 h of ebb.

Locality, Narragansett Bay.

Exact position, Sand Point Light S. W x W 1/2 W. .5 of mile mag.

Depth, 15 fathoms

Nature of bottom, muddy - shelly -

Dredging instrument used, 7 feet beam trawl

Direction of drift, S x W. 3/4 W ; distance, .35 of mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.020 temp., 9.8° C

~~" at depth of fathoms,~~ "

" at bottom, 1.021 + " 11.3° C

Number of salinometer, 7104

Barometer reading, 30.20

State of sky, Blue - light clouds

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

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. G. Davenport, USNavy

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

6047

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 119 — ~~2047~~

Date, Nov. 16 - 1898

Time of day, 1.55 ; of tide, 5h 7 ebb.

Locality, Narragansett Bay

Exact position, Sand Point Light. S. W. 1.25 miles mag

Depth, 11 fathoms

Nature of bottom, Muddy & Shelly

Dredging instrument used, 7 feet beam trawl

Direction of drift, S.W.x W. 3/8 W. ; distance, .28 of mile

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

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.020 temp., 9.8° C

~~" at depth of fathoms,~~ "

" at bottom, 1.023 " 10.7° C

Number of salinometer, 7104

Barometer reading, 30.20

State of sky, Blue, light clouds

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

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. G. Davenport, USNR

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

NOTES RELATING TO STATION NO. 119

E Longicarpus in trifida shell
Dermal Rare Ermacine
Few winter flounder
1 Window pane
1 Cancer Irroratus
about 100 Trifida Stars 1 to 6 in. mostly small
shells of oyster, mya, common pecten.
Venus, anomea, Tardulus.
neverita, mytilus, Mulinea
Young lake.
Microsciona 1 piece.
Crangon, Hyanassa
shells of Cochlodesma Leanum

6048

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 120 — ~~2048~~

Date, Nov. 16-1 898

Time of day, 2.30 pm ; of tide, 5¼ h of ebb.

Locality, Narragansett Bay

Exact position, Sand Point Light S. S. W. 1.6 miles may

Depth, 3 3/4 fathoms.

Nature of bottom, Soft mud.

Dredging instrument used, 7 feet beam trawl

Direction of drift, S. W. 3/8 S ; distance, .25 of mile

Temperature of air, 49° Fah therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.020 temp., 9.8°C

~~" at depth of fathoms,~~ "

" at bottom, 1.021 " 10.2°C

Number of salinometer, 7104

Barometer reading, 30.20

State of sky, Blue cloudy

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

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, USNavy

Name and position of observer, J. H. Mulligan R. USNavy

NOTES RELATING TO STATION NO. 120

25 Window pane
20 Winter flounder
1 Cancer Irroratus
Several Raia Erinacea. sev. small
Pipe fish
Young sq. lake. Serpula.
Membranipora. common pecten
Venus. oyster. cyclocardia.
Lin. skate egg. C. fornicata.
Petricola Anomea. Crangon
Callista convexa
3 Forbesii Stars
Rock eels (?) Arcachis
Tritia. Clidophora
Illyanassa, Capridula convexa
Urosalpinx shell.
L. triceriata E. anelipes.
L. littoria with E. longicaspus

6049

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 121 — ~~2049~~

Date, Nov. 16. 1898

Time of day, 2.50 ; of tide, Low water,

Locality, Narragansett Bay.

Exact position, Sand Point Light — S. x W. 7/8 W. 2.15 miles mag

Depth, 4 fathoms

Nature of bottom, Muddy,

Dredging instrument used, 7 feet beam trawl

Direction of drift, S. 7/8 W. ; distance, .3 of mile

Temperature of air, 49° Fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.020 temp., 10.2°C

~~" at depth of fathoms, "~~

" at bottom, 1.021 " 11° C

Number of salinometer, 7104

Barometer reading, 30.20

State of sky, Blue, light clouds

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

Rain, no

Direction of surface current, S. S. 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 USNRC

Name and position of observer, J. W. Mulligan Pharmacist USNRC

NOTES RELATING TO STATION NO. 121

3 Raia, erinacea. + 1 small
8 Window pane flounder
4 Winter " "
about 50 small Forbes stars 1/2 to 4 in
Shells of Lucina filosa.
Sulphur sponge.
Escharella. Bispula.
Membranipora.
Hydrachtinea
Cidrophora shells. Ostrea shells.
Anomia shells. Cyrstia partita.
C. fornicata shells. L. littoria.
Astarte undatum Scapharca
E. Longicaulis. Common pecten.
Mod. corrugata. Liv. tritia.
Balanus. Upleura caudata liv.
Yellow astarte. Liv. tritia
Callista. C. shells formulatum
Trophonia. Crangon
Pipe fish. Few amphipods
A few large shells of Periploma

Conradi P.

Trawl taken up in 208 fath
temp bottom 58°

643 Density 1031 6050

# RECORD OF DREDGING,

Trawl badly torn and little material obtained.

## TEMPERATURE AND DENSITY.

Station No. 122 - ~~2050~~

Date, Jan. 13. 1899

Time of day, 10.45 am ; of tide.

Locality, Off entrance San Juan Harbor

Exact position, Old fort bearing S½W. 1¼ miles Battery on El Boqueron S.E.x E½E distant 3¼ miles. mag.

Depth, 91 fathoms

Nature of bottom, Sand mud

Dredging instrument used, 7 ft. beam trawl

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

Temperature of air, 82° therm. No., 7397

" of surface water, " 77°

" at depth of 46 fathoms, Negretti " 79°

" at bottom, " 79°

Density at surface, 1023 temp., ~~1.023~~

" at depth of 1024 fathoms, " ~~1.024~~

" at bottom, 1026 " ~~1.026~~

Number of salinometer, 7164

Barometer reading, 30.03

State of sky, Blue Light clouds

Direction of wind, E.S.E ; force, ½

Rain, No

Direction of surface current, ; force,
Light swell from Eastward

" 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. Cond.
R. G. Davenport, U.S.Navy

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

NOTES RELATING TO STATION NO. 122

Trawl badly torn, and little obtained.
a few specimens brittle stars,
1 fish. Serpens,
1 piece of coral

Dredge hauled in 30 minutes
101 fathoms temp 69°
Density 1,024 – 7164 sal.

643 6051

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 123 – ~~2051~~

Date, Jan. 13th 1899

Time of day, 1.20 ; of tide,

Locality, Outside Entrance San Juan Harbor

Exact position, ~~Position 1 Cabras Point S 1/2 W. 1 mile~~ ~~Fort on Point of El Boqueron, E.S.E 3 1/2 miles~~ Position 2 Tangle taken up. Cabral old fort D. W 1/2 S. 1 1/2 miles of El. Boqueron D.E. 1/2 E. 2 3/4 miles

Depth, 45 fathoms.

Nature of bottom, Sandy mud.

Dredging instrument used, Tangle

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

Temperature of air, 84° fahr therm. No., 7397

" ~~of surface water,~~ "

" ~~at depth of~~ fathoms, "

" ~~at bottom,~~ " 77

Density at surface, 1023 temp., 24° C.

~~" at depth of fathoms,~~ "

" at bottom, 1027 " 77° fahr

Number of salinometer, 7164

Barometer reading, 30.02

State of sky, Blue & cloudy,

Direction of wind, E.N.E. ; force, 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. Davenport U.S.N.

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

NOTES RELATING TO STATION NO. 193

Tangle used.

sounded in 187 fathoms,

Dredge taken up in 335 fath.
Temp. - 63
Density. 1.0243

643 6052

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 124 — ~~2052~~

Date, Jan 13th 1899

Time of day, 3.15 ; of tide,

Locality, Outside Ent. San Juan Harbor

Exact position, Old Fort S. W. 3/4 W. 5 1/4 miles
Fort on El Bequeron S x W 1/2 W. 3 miles

Depth, 310 fathoms

Nature of bottom, Sandy mud.

Dredging instrument used, ~~Trawl~~ Dredge

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

Temperature of air, 79° fahr therm. No., 7397

" of surface water, " 58.5

" at depth of fathoms. "

" at bottom, "

Density at surface, 1023 temp., 26.5° C

~~" at depth of fathoms, "~~

" at bottom, 1,028 " ~~23.0°~~

Number of salinometer, 7164

Barometer reading, 29.98

State of sky, Blue, light clouds

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

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

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

6053

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 135 — ~~2053~~

Date, Jan. 16th 1899

Time of day, 10.30 ; of tide, Ebb.

Locality, San Juan Harbor.

Exact position, N. W. side of Morro castle 1/4 mile off

Depth, 4 fathoms to 7 1/2 fathoms

Nature of bottom, Sand (fine)

Dredging instrument used, Dredge

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

Temperature of air, 77° fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 26.5

~~" at depth of fathoms, "~~

" at bottom, 1.0242 " 26.°C

Number of salinometer, 7164

Barometer reading, 30.08

State of sky, Blue, light clouds.

Direction of wind, East ; force, 2

Rain, No —

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

" of bottom " ; force,

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

Service to which attached, Fish Com.

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

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

6054

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 126 — ~~2054~~

Date, Jan. 16th 1899

Time of day, 11 00 am; of tide, Ebb.

Locality, San Juan Harbor

Exact position, N. W. angle of Morro Castle 3/8 of 7 mile

Depth, 4½ fath to 5½

Nature of bottom, Sand & mud.

Dredging instrument used, Tangle & dredge

Direction of drift, N.; distance, ¼ mile

Temperature of air, 77° Fahr. therm. No., 7397

" ~~of surface water,~~ "

" ~~at depth of fathoms,~~ "

" ~~at bottom,~~ "

Density at surface, 1.023 temp., 25° C

~~" at depth of fathoms,~~ "

" at bottom, 1.025 " 25.2° C

Number of salinometer, 7164

Barometer reading, 30.07

State of sky, Overcast.

Direction of wind, East. ; force, (Squally) 5

Rain, No

Direction of surface current, N. ; force, ¼ knot

" of bottom " ; force,

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

Service to which attached, Fish Com.

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

Name and position of observer,

J. D. Milligan

Pharmacist USN

33 fathom
Taken up in 130 fath. 6055
Temp. 66° Fahr = 25°C
Density, 1.0245

643

# RECORD OF DREDGING,

Surface Den. 1.023 + 26°C temp.

## TEMPERATURE AND DENSITY.

6

Station No. 127. — ~~2055~~

Date, Jan. 18th 1899

Time of day, 11.15 am; of tide,

Locality, Off Aguadilla. P.R.

Exact position, ~~Pt~~ O.W. point of Descocheo Isl. W x S. 1/4 S. 18 1/4 miles. Pt de Bruguen Lt. House N.E. x N. 3/4 N. 3 1/4 miles

Depth, 137 fathoms.

Nature of bottom, ~~Rocky~~ Sand Mud & Shell

Dredging instrument used, Dredge & tangle.

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

Temperature of air, 82° Fahr. therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 26.2°C

~~" at depth of fathoms, "~~

" at bottom, 1.0248 " 24°C

Number of salinometer, 7164

Barometer reading, 29.98

State of sky, Blue, light cloud.

Direction of wind, E ; 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 Com.

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

Name and position of observer, J. D. McMillan Pharmacist, USNS

Taken up on 237 fath.
Bottom Temp 60° fahr. 24°C
" Density 1.0242
Surface " 1.023
" Temp. 26°C

6056

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 128 7 — ~~2056~~

Date, Jan. 18. 1899.

Time of day, 1.20 ; of tide,

Locality, Off Aguadilla. P.R.

Exact position, San Carlos church in Aguadilla ~~E. 3/4 E.~~ S.E.x E 3/4 E. 3 miles. Pt. de Bouguer Light-House N.E. 1/2 E. 3 1/4 miles.

Depth, 248 fath.

Nature of bottom, Sand, mud & shells.

Dredging instrument used, Dredge & Tangle.

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

Temperature of air, 87° fahr therm. No., 7397

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023.2 temp., 26.5°C

~~" at depth of fathoms, "~~

" at bottom, 1.025 " 24.5°C

Number of salinometer, 7164

Barometer reading, 29.93

State of sky, Blue light clouds.

Direction of wind, E. ; 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 Com.

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

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

Taken up in
Top Density 1.023 Bottom 1.028.
Bottom Temp. 25.5° C Top 25.5° C

643 6057

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 8 129 } Chart no. 372 ~~2057~~

Date, Jan. 19. 1899

Time of day, 2.15 p.m.; of tide,

Locality, Harbor of Mayaguez, P.R.

Exact position, Custom House. E ½ N. 3/8 mile
Pt. de Algarrobo N.W. x N. ¼ N. 1½ miles

Depth, 4½ fathoms

Nature of bottom, Muddy (tenacious)

Dredging instrument used, Dredge & tangle

Direction of drift, N.W. x N ¼ N; distance, ¼ mile

Temperature of air, 83.5° fahr therm. No., 1.013 ~~1377~~

" ~~of surface water,~~ "

" ~~at depth of~~ fathoms, "

" ~~at bottom,~~ "

Density at surface, 1.023 temp., 25° C

~~" at depth of fathoms, "~~

" at bottom, 1.028 muddy water " 25.6° C

Number of salinometer, 7164

Barometer reading, 29.92

State of sky, Blue, light clouds.

Direction of wind, P. E.; 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 Cyn.

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

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

Taken up in 7 fathoms. 6058 20 minutes

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

~~2058~~

Station No. 9 130 Chart no. 372

Date, Jan. 19th 1899

Time of day, 3 pm. ; of tide,

Locality, Mayaguez Harbor.

Exact position, Custom House E x S. 1/2 miles

Pt. del Algarrobo W x W. 1/8 miles

Depth, 7 1/4 fath.

Nature of bottom, Muddy

Dredging instrument used, 9 feet beam trawl.

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

Temperature of air, 79° fahr therm. No., ~~7297~~ 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 26° C

" at depth of fathoms, "

" at bottom, 1.025 " 26° C

Number of salinometer, 7164

Barometer reading, 29.89

State of sky, Blue - light clouds.

Direction of wind, S. E. ; 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, Lt. Comdr R. G. Davenport, USNavy

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

6059



# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

~~2059~~

Station No. 131 – Chart no. 372

Date, Jan. 19, 1899.

Time of day, 4 pm. ; of tide,

Locality, Mayaguez Harbor –

Exact position, Custom House E. 1/4 S. 2 miles

Pt. del Algarrobo N. x E. 3/4 E. 1 3/8 miles

Depth, 7 to 10 fathoms.

Nature of bottom, Muddy.

Dredging instrument used, 9 feet beam Trawl,

Direction of drift, South ; distance, 5/8 mile

Temperature of air, 82° fahr, therm. No., 1.013 / 7597

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0232 temp., 26° C

" at depth of fathoms, "

" at bottom, 1.027 " 27° C

Number of salinometer, 7164

Barometer reading, 29.89.

State of sky, Blue, light-clouds.

Direction of wind, S.E. ; 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, Lt. Comdr R. G. Davenport, U.S.N.

Name and position of observer,

[illegible]

Pharmacist, U.S.N.

6060

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

~~2060~~

Station No. 132 - Chart no. 372

Date, Jan. 19 /99

Time of day, 4.20 ; of tide,

Locality, Mayaguez Harbor

Exact position, Custom House Ex S. 1/4 O. 2 1/4 miles

Pt. del Algarrobo N.E. 1/2 E. 1 1/8 miles

Depth, 19 fathoms

Nature of bottom, Muddy

Dredging instrument used, Dredge

Direction of drift, North ; distance, 3/8 mile.

Temperature of air, 84° fahr. therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, ~~1.0245~~ "

Density at surface, 1.023 temp., 26.2°C

" ~~at depth of fathoms,~~ "

" at bottom, 1.0245 " 27°C

Number of salinometer, ~~29.90~~ 7164

Barometer reading, 29.90 —

State of sky, Blue - light - clouds

Direction of wind, S.E. ; 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 Comm.

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

Name and position of observer, D. W. Mulligan Ph. Tech

6061

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

2061

Station No. 133 – Chart no. 372

Date, Jan. 20th 1899.

Time of day, 9.50 ; of tide,

Locality, Harbor Mayaguez

Trawl went down Black buoy, entrance Harbor N x W 1/2 W 1/16 mile

Exact position, Pt. del Agarrobo E x N. 1/2 miles

Trawl came up Black buoy entrance Harbor N. x W. 1/2 W 1/2 mile

12 1/6 Pt. del Agarrobo N. E x E 3/4 E. 1 1/4 miles.

Depth, 18 fathoms.

Nature of bottom, Sand, mud.

Dredging instrument used, 9 feet beam trawl.

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

Temperature of air, 78° fahr. therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 26.2° C

" at depth of fathoms, "

" at bottom, 1.024 " 26° C

Number of salinometer, 7164

Barometer reading, 30.02

State of sky, Blue, light clouds

Direction of wind, S. E. ; force, 1/4

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. H. Davenport, USNavy

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

Taken up at 25 fath.
Den. 1.0238
Temp. 26° C

6062

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY. ~~2062~~

Station No. 134 – Chart no ~~372~~

Date, Jan. 20 – 1899

Time of day, 10.15 a.m. ; of tide,

Locality, Mayaguez Harbor.

Exact position, Dredge came up } Black buoy ent. harbor N.E. ½ E. ½ mile
Red buoy " " E.S.E. ½ mile

25 to 30

Depth, 30 fathoms

Nature of bottom, Mud, sand & shells.

Dredging instrument used, Dredge

Direction of drift, S. x E. ¾ E ; distance, ½ mile

Temperature of air, 78° fahr., therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 26° C

~~" at depth of fathoms, "~~

" at bottom, 1.024 " 25° C

Number of salinometer, 7164

Barometer reading, 3000

State of sky, Blue, light clouds.

Direction of wind, S.E. East ; force, ~~2~~ 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, Lt. Comdr R. G. Davenport, U.S. Navy

Name and position of observer, J. A. Millyan
Pharmacist, Navy

Hauled in 75 fathoms.
Bottom Density 1.025
" Temp 68. fahr 6063

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY. ~~2063~~

Station No. 135 - Chart no 1001

Date, June, 20 - 1899,

Time of day, 10.45 ; of tide,

Locality, Mayaguez Harbor,

Exact position, Dredge came up Tangent of Sand South about Pt. Melones South - 14½ miles.

Pt. del algarrobo E. 2¾ miles

Depth, 76 fathoms

Nature of bottom, ~~11 feet beam trawl.~~ rocky, coral & sand.

Dredging instrument used, 9 feet beam trawl,

Direction of drift, South ; distance, 1 mile

Temperature of air, 78.° fahr. therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0232 temp., 25.8° C

~~" at depth of fathoms, "~~

" at bottom, 1.025 " ~~68.5~~ 20.2° C fahr

Number of salinometer, 7164

Barometer reading, 29.99

State of sky, Cloudy

Direction of wind, S. E. ; 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, Lt. Comdr R. G. Davenport, USNavy

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

Taken up in 22 fathoms
Bottom Density 1.024
" Temp. 78° fahr. 25.6° C

643

# RECORD OF DREDGING,

6064

## TEMPERATURE AND DENSITY. ~~2064~~

Station No. 136 - Chart no 1001

Date, Jan. 20 - 1899

Time of day, 11.35 am ; of tide,

Locality, Mayaguez Harbor

Dredge came up. Tangent of land about St. Melones 8 - 13½ miles

Exact position,

22 to Custom House. E¼N. 4 3/8 miles

Depth, 33½ fathoms

Nature of bottom, Sand & mud

Dredging instrument used, Dredge

Direction of drift, South ; distance, ½ mile.

Temperature of air, 77° fahr therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 25.7° C

" at depth of fathoms, "

" at bottom, 1.0243 negretti " ~~76.5°~~ 24.7 fahr

Number of salinometer, 7164

Barometer reading, 29.98

State of sky, Overcast,

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

Rain, ~~No~~ Yes. light

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. Davenport, USNavy

Name and position of observer,

J. D. Milligan
Pharmacist, USNavy

Dredge taken up - caught at bottom. 6065

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY. ~~2065~~

Station No. 137 - Chart no. 1001

Date, Jan. 20 - 1899

Time of day, 1.30 pm ; of tide,

Locality, Harbor Mayaguez

Exact position, Custom house. N. E. 3/4 E. 4 1/2 miles

Tangent of land south abeyt Pt Melones. 11 miles

Depth, 4 to 6 fathoms

Nature of bottom, Coral bottom

Dredging instrument used, Dredge

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

Temperature of air, 80° fahr therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0232 temp., 26° C

" at depth of fathoms, " 20. C

" at bottom, 1.0236 " ~~68.~~ fah

Number of salinometer, 7164

Barometer reading. 29.91

State of sky, - Cloudy

Direction of wind, S.S.E. ; 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, Dr. Comdr

R. G. Davenport, USNR

Name and position of observer,

J. W. Milligan

Pharmacist. USNR

Hauled up in 161 fathoms
Density - 1.024
Temp - 63° Fahr (25.4)

6066

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY. 2066

Station No. 138 - Chart no 1001

Date, Jan. 20th 1898

Time of day, 4.35 ; of tide,

Locality, Mayaguez Harbor

Trawl came up

Exact position, Pt. Jiguero light ho. N½W. 9 miles
Pt del Algarrobo East 4 5/8 miles

Depth, 172 fathoms

Nature of bottom, Mud & Sand

Dredging instrument used, 9 feet beam trawl

Direction of drift, S. ½ E. ; distance, 1 mile

Temperature of air, 78° therm. No. 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 76° C

" at depth of fathoms, "

" at bottom, 1.0246 (61° Fahr) 23° C

Number of salinometer, 7164

Barometer reading, 29.90

State of sky, Blue, light clouds

Direction of wind, S. S. E. ; force, ½

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 Corp

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

Name and position of observer, J. D. Milligan
Ch. USNRC

Taken up in 97 fathoms.
Bottom Density 1,024
Temp. 68 Fahr. 26° C

643

# RECORD OF DREDGING,

6067 TEMPERATURE AND DENSITY ~~2067~~

Station No. 139 - Chart no - 1001

Date, Jan. 20 - 1899.

Time of day, 3.40 pm; of tide,

Locality, Mayaguez Harbor

Dredge came up

Exact position, Pt. Jiguero Lt. H. N. 10½ miles

Pt del algarrobo E x N. ½ N 5¾ miles.

Depth, 120 fathoms

Nature of bottom, Coral

Dredging instrument used, Dredge

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

Temperature of air, 84° fahr. therm. No., 1,013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0232 temp., 26.3° C 6 fahr

" at depth of fathoms, "

" at bottom, 1.025 " 24° C 65° fahr

Number of salinometer, 7164

Barometer reading, 29.90

State of sky, Blue light clouds.

Direction of wind, S.S.E; force, ½

Rain, No.

Direction of surface current, —; force, —

" of bottom " —; force, —

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

Service to which attached, Fish Com.

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

Name and position of observer, J. D. Mulligan Phc USNRC

Trawl came up in 224 fath.
Bot. Density 1.0248
Temp. 58° fahr & 24° C

643

# RECORD OF DREDGING, ~~2068~~

6068

## TEMPERATURE AND DENSITY. Water Haul

Station No. 140 - chart no.

Date, Jan. 21 - 1899

Time of day, 12.55 ; of tide,

Locality, Mayagnez Harbor

Trawl came up Custom Ho. E.S.E. 1/2 E. 7 1/2 miles

Exact position,

Pt. Jiguero Lt. Hg. N 1/4 E. 8 1/4 miles

Depth, 237 fathoms

Nature of bottom, (?)

Dredging instrument used, 9 feet beam trawl

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

Temperature of air, 84.5° fahr therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 28° C

" at depth of fathoms, " 23.2° C

" at bottom, 1.0242 " 57° fahr

Number of salinometer, 7164

Barometer reading, 29.96

State of sky, Blue

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 Com

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

Name and position of observer, J. D. Millington Ph. USN

Hauled up in 223 fathom
Density 1.0242
Temp 58° Fahr 23.7° C

643

# RECORD OF DREDGING,

6069

## TEMPERATURE AND DENSITY.

Station No. 141. Chart no. ~~2069~~

Date, Jan. 21 - 1899

Time of day, 2.10 pm ; of tide,

Locality, Mayaguez Harbor

Exact position, Pt. Figueroa Lt. Ho. N. 1/8 E. 8 1/4 miles
Whitlight Ho
Custom Ho. E. S. E. 1/2 E. 7 7/8 miles.

Depth, 231 fathom

Nature of bottom, Mud & Sand.

Dredging instrument used, Dredge

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

Temperature of air, 80° fahr. therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 26.6° C

" ~~at depth of~~ fathoms, "

" at bottom, 1.0242 " 23.5° C 56° fahr

Number of salinometer, 7164

Barometer reading, 29.92

State of sky, Blue

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 Com.

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

Name and position of observer, J. D. Milligan
Ph. USNav

Trawl came up in 220 fathoms
Bot. Density - 1.0242
" Temp 60° Fahr 24° C

643

607°

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 1-2 Chart no. ~~2070~~

Date, Jan. 21 - 1899

Time of day, 3.15 pm ; of tide,

Locality, Mayaguez Harbor

When trawl came up

Exact position, Cushion Ho. E 5/8 O. 9 miles
Pt. Jiguero Lt. Ho. N. 7/8 E. 10 miles

Depth, 225 fathom

Nature of bottom, Rocky

Dredging instrument used, 9 feet beam trawl

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

Temperature of air, 78° Fahr. therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0233 temp., 26° C

~~" at depth of fathoms, "~~

" at bottom, 1.0242 " 24.6° C 59° Fahr

Number of salinometer, 7164

Barometer reading, 29.91

State of sky, Blue

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 Com.

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

Name and position of observer, J.D. Milligan
Pt. Nsuc

Trawl came up in 163 fath.
Bottom Density 1.025
Temp. 61.5° fahr 22.3° C

643 "

6071

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Trawl carried away, carrying 185 fathoms of wire

Station No. 143 ~~2071~~

Date, Jan. 24 - 1899.

Time of day, 11.50 ; of tide,

Locality, Outside Harbor Mayaguez

Trawl came

Exact position, Custom Ho. E. 3/8 N. 9 1/4 miles

Pt. de Jiguero L. ho. N x E. 11 1/4 miles

Depth, 192 fathoms

Nature of bottom, (?)

Dredging instrument used, 9 feet beam trawl

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

Temperature of air, 84° therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 27° C

~~" at depth of fathoms,~~ "

" at bottom, 1.0245 " 25.5° C

Number of salinometer, 7164

Barometer reading, 29.98

State of sky, Blue.

Direction of wind, S. E. ; force, 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. Davenport, U.S. Navy

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

6072

. 643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 144 - ~~2072~~

Date, January 25th 1897

Time of day, 1.20 ; of tide,

Locality, Off Pt. Molines. D. side of Soquerra when tangle came up

Exact position, Cabo Rojo Lt. Ho. D. D. E. 5¼ miles Bay

Off Guaniquilla N. N. E. 2¼ miles mag.

Depth, 7¼ fathoms

Nature of bottom, Coral, sand - shelly

Dredging instrument used, Tangle -.

Direction of drift, N. 3/8 E. ; distance, 1½ miles

Temperature of air, 76° Fahr. therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0228 temp., 26° C

~~" at depth of fathoms, "~~

" at bottom, 1.023 " 26° C

Number of salinometer, 7164

Barometer reading, 29.96

State of sky, Cloudy, Blue.

Direction of wind, D. E. ; force, 4

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. Davenport, U.S.Navy

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

net dropped from dredge from weight of material. - no record

6073

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 145 — ~~2073~~

Date, Jan. 25th 1899

Time of day, 2.05 ; of tide,

Locality, Off Molinos,

Exact position, when dredge came up: Atalaya Rock. N¼E. 17½ m.
Pt. Guaniguilla S.x E. ¾ E. 1¼ miles

Depth, 8 fathoms

Nature of bottom, 1.1

Dredging instrument used, Dredge

Direction of drift, N. ¼ E. ; distance, ¾ mile

Temperature of air, 80° fahr., therm. No. 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.023 temp., 26° C

" at depth of fathoms, "

" at bottom, 1.023 " 27° C

Number of salinometer, 7164

Barometer reading, 29.96

State of sky, Blue, light clouds

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

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. Davenport. U.S.Navy

Name and position of observer,

J. D. Milligan
Pharmacist Usne

6074

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 146 — ~~2074~~

Date, Jan 25th 1899

Time of day, 2.35 ; of tide,

Locality, Off Puerto Real

When tangles came up

Exact position, Pt. Guainiquilla S.¼ E. 2 miles

Pt. Boca-prieta E¼ N, 1 mile mag

Depth, 8½ fathoms

Nature of bottom, Sandy & Coral

Dredging instrument used, Tangle

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

Temperature of air, 82° fahr therm. No. 1.013

" ~~of surface water,~~ "

" ~~at depth of~~ fathoms, "

" ~~at bottom,~~ "

Density at surface, 1.023 temp., 26° C

~~" at depth of fathoms,~~ "

" at bottom, 1.023 " 26° C

Number of salinometer, 7164

Barometer reading, 29.94

State of sky, Blue, light clouds.

Direction of wind, S.E ; force, 1½

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. Davenport. U.S.Navy

Name and position of observer, J. D. Milligan

Pharmacist. U.S.Navy

6075

643

# RECORD OF DREDGING,

## TEMPERATURE AND DENSITY.

Station No. 147 ~~2075~~

Date, Jan. 25 1899.

Time of day, 3.20 ; of tide,

Locality, Off Boca prieta

Exact position, Pt. Guaniquilla I.O.E. 3¼ miles
Fanduco Cay East 1¾ miles

Depth, 8½ fathom

Nature of bottom, Sandy, coral.

Dredging instrument used, Dangle

Direction of drift, West ; distance, ¾ mile

Temperature of air, 80° fah. therm. No., 1.013

" of surface water, "

" at depth of fathoms, "

" at bottom, "

Density at surface, 1.0228 temp., 26.°C

~~" at depth of fathoms, "~~

" at bottom, 1.023 " 25.5°C

Number of salinometer, 7164

Barometer reading, 29.93

State of sky, Blue, light cloud; light rain

Direction of wind, O.E. ; force, ½

Rain, ~~no~~ Light rain

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. Cmdr
R. G. Davenport, USNavy

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

J.D.M. - artist.
Mucho Bonita