21. J. F. C. Records, An. 961-1028, 1881,

ORIGINAL LOG BOOK OF THE "FISH HAWK"

UNITED STATES FISH COMMISSION

STATION NUMBERS

Numbers 961 to 1028

2. Fesh Comm.

1. J. Fesh Comm. Dredzing Records. Aos, 961-1028. 1881.

| Instrument used, Fraul mith wings. |
|--|
| Current number of observation, 961 |
| Date, aug. 26, 1887. Locality, Buzzard Bay Bearings, Myes Neck, N. E. 3/4E, |
| Locality, Buzzard Bay, |
| Bearings, Myes neck, n. E. 3/48, |
| 23/4m. |
| Time of day, /, 520m; of tide, Low, |
| State of sky, Clear |
| Temperature of air, 71,5 |
| " surface of water, 69 |
| " at depth of fathoms, |
| " of bottom, 68, |
| Depth, in fathoms, 8 |
| Nature of bottom, ble mud |
| Direction of surface current, S. N. force 5, Force of surface current, N. by S. 3/4 m |
| Force of surface current, N. by S. 3/4m |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, Fish Hawk. |
| To what service attached, U. S. Frish Commission |
| Name and rank of commanding officer, Z. L. Tanner |
| Leut, un navy, |
| Name and position of observer, |
| Gof A. P. Chapin |
| warsawn, |
| |

| Instrument used, Trawl with any |
|---|
| Current number of observation, 962, |
| Current number of observation, 962, Date, Queg, 26, 1881, |
| Locality, Buzzard Bay, |
| Bearings, Noepeaket 2d. n. E. |
| Bearings, Noepeaket 2d. n. E. 3/4 E. 11/4 m. |
| Time of day, 3, 10 Pui of tide, flood |
| State of sky, Clear, |
| Temperature of air, |
| " surface of water, 68 |
| " at depth of fathoms, |
| " of bottom, G G |
| Depth, in fathoms, |
| Nature of bottom, blimus Janus, |
| Direction of surface current, P, N, Force 6, |
| Force of surface current, Wyll, 12m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |

| Instrument used, Dredgl |
|---|
| Current number of observation, 963, |
| Date, Aug. 26, 1881, Locality, Beeggard's Berry Bearings, Coepieke Tod. S. E. 1/2 ! |
| Locality, Beeggard Bay |
| Bearings, Cooperated Id. S. E. 1/2: |
| Imile |
| Time of day, 3, 40 Phi of tide, Slood |
| State of sky, Clcar |
| Temperature of air, 70, |
| " surface of water, 68, |
| " at depth of fathoms, |
| " of bottom, G G |
| Depth, in fathoms, 81/2 |
| Nature of bottom, Noun hund |
| Direction of surface current, S, M. force 6. |
| Direction of surface current, S, N. force 6. Force of surface current, W, S, W. 3/4m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |

Name and position of observer,

Name and rank of commanding officer,

| Instrument used, Dredge |
|--|
| Current number of observation, 964. Date, Aug 30, 1881. |
| Date, aug, 30, 1881. |
| Locality, Crab Ledge, |
| Locality, Crab Ledge, Bearings, Chatham Light n. N. |
| 1/2 m, 5 miles, |
| Time of day, 7,50; of tide, Obb, |
| State of sky, Clear, |
| Temperature of air, 65, |
| " surface of water, 6 /, |
| " at depth of 5 fathoms, 59, |
| " of bottom, 5-5, |
| Depth, in fathoms, / O , |
| Nature of bottom, Sandy gravel, Direction of surface current, S, force 4. Direction of surface current, E, S, E, 1/8 m |
| Direction of surface current, S, force 4. |
| Force of Surface current, E.S.E. 1/8 m |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |

Sand mid fine frauel, Starfin . thongs.

| Instrument used, Oreday |
|--|
| Current number of observation, 965 |
| Date, Aug, 30, 1884, |
| Locality, Crab Ledges |
| Bearings, Chatham Light |
| n. W. by W. Comiles. |
| M. W. by W. Comiles. Time of day, 8, 15; of tide, ebb, |
| State of sky, Clear |
| Temperature of air, 65, |
| " surface of water, 6 / |
| " at depth of 5 fathoms, 59 |
| " of bottom, 53 |
| Depth, in fathoms, 15, |
| Nature of bottom, Sand Travel |
| Direction of surface current, S. Locca Y. |
| Direction of surface current, S, E, by E, 13 m, |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

9 65 REMARKS

rilar to Cast

| Instrument used, Dredge |
|---|
| Current number of observation, G 6 |
| Date, Aug. 30, 1881, 0-119 |
| Locality, Chalpan Light |
| Current number of observation, 966 Date, Aug. 30, 1884, Crob Les Locality, Chalfam Light Bearings, N. W. by W. 1/4 W. 6/41 |
| • |
| Time of day, 8, 40 as; of tide, lbb, |
| State of sky, Clear, |
| Temperature of air, 65 |
| " surface of water, 6/, |
| " at depth of 10 fathoms, 54. |
| " of bottom, 52, |
| Depth, in fathoms, / 6 |
| Nature of bottom, Sand, small stones, |
| Direction of surface current, S. W. force 4, |
| Direction of surface current, S. N. force 4, Rance of surface current, S. E 1/8 m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |

Timilar to last.

| Instrument used, Dredge |
|--|
| Current number of observation, 967 |
| Date, aug. 30, 1881, |
| Locality, Crub Ledg |
| Bearings, Chalpan Light |
| 1, N. On W. 14W. 60/4n |
| Time of day, 8,50; of tide, 266, |
| State of sky, Clear |
| Temperature of air, & 6, |
| " surface of water, Cel, |
| " at depth of 5 fathoms, Co. |
| " of bottom, 5 ⁻ 2, |
| Depth, in fathoms, / 6, |
| Nature of bottom, Sand, gravel, |
| Direction of surface current, 8, m. force 4, |
| Force of surface current, S. E. 16 m, |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

No sand came up a clean hand, not much but rich. Bryozon, by droid, Crabs, ascidian apparent, Rocky, Gotton Story

| Instrument used, Dredge |
|--|
| Current number of observation, 968 |
| Date, aug, 30, 1887, |
| Locality, Crab Ledger |
| Bearings, Chalham Light |
| n. W. by W. 3/4 W. 7/4m. |
| n, w, by w, 3/4 w, 4/4 m, Time of day, 9.; of tide, 266, |
| State of sky, Clear |
| Temperature of air, 66, |
| " surface of water, 6/, 5 |
| " at depth of fathoms, &, |
| " of bottom, 50,5 |
| Depth, in fathoms, / 8 |
| Nature of bottom, gravely |
| Direction of surface current S, W, force 4, |
| Force of soffice current, n, W, by W, 18m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

Limilar to 9 64

| Instrument used, Dredge |
|--|
| Current number of observation, 969 |
| Date, ang, 30, 1881, |
| Locality, Crab Ledge |
| Bearings, Chalpan Light |
| n. W. by M. 3/4W, Fru. |
| Time of day, 9, 10 am; of tide, |
| State of sky, Olean |
| Temperature of air, 66 |
| " surface of water, 61,5 |
| " at depth of fathoms, |
| " of bottom, 5/, |
| Depth, in fathoms, / 8, |
| Nature of bottom, Dand, Shones, |
| Direction of surface current, S. W. farcer 4. |
| Direction of surface current, S. W. farce 4, Force of surface current, S. E. 1/4 mm. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

Dimilar tolast

| Instrument used, Dredge |
|---|
| Current number of observation, 9 70 |
| Date, aug, 30, 1881, |
| Locality, Crab Ledges |
| Bearings, Chalhum Light |
| N, n, W, 3/4 W, Com |
| Time of day, 9, 43 and of tide, |
| State of sky, Clean |
| Temperature of air, 67, |
| " surface of water, Q1, |
| " at depth of fathoms, |
| " of bottom, 54, |
| Depth, in fathoms, / 3, |
| Nature of bottom, Sand, Bebbles, stones |
| Direction of surface current; S, W, force 4 |
| Force of surface current, W, N, W. 18. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |

Similar Elast.

| Instrument used, Dredge, |
|---|
| Current number of observation, 9 7 |
| Date, ang, 30, 1881, |
| Locality, Crab Ledge |
| Bearings, Chalhern Light |
| Nr. 3/4 nr. 4/4 m. |
| Time of day, 10,05 ari of tide, |
| State of sky, Clear, |
| Temperature of air, 6 7, |
| " surface of water, 6/15 |
| " at depth of fathoms, |
| " of bottom, 54. |
| Depth, in fathoms, / / , |
| Nature of bottom, Sand pebble fravel |
| Nature of bottom, Sand Sebble Gravel Direction of surface current, 5, 7, force 4, |
| Force of Strace current, S. S. E. 14 m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

Similar tolart.

| 8 . 8 . |
|--|
| Instrument used, Dredge |
| Current number of observation, 972 |
| Date, aug. 30 / 1889, |
| Locality, Crab Ledge |
| Bearings, Chulham Lights, |
| h, W, by W. 7/8 W. 7/2m, |
| Time of day, 10, 4 8 ani of tide, |
| State of sky, Clear. |
| Temperature of air, 6 7. |
| " surface of water, 62 |
| " at depth of fathoms, |
| " of bottom, 52, |
| Depth, in fathoms, \(\lambda \), |
| Nature of bottom, gravel sand shones |
| Direction of surface current, S. W. force 5. |
| Force of surface current, n. E. 18 |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel |

Name and position of observer,

Name and rank of commanding officer,

To what service attached,

PEMARKS. Land Frave Compd. ascid (Softenia Correira Sophottamin

| Instrument used, Dredge |
|--|
| Current number of observation, 973 |
| Date, any, 30, 1881, |
| Locality, Of Chalham, Crab Led |
| Bearings, Challam Light |
| n. n. m. 63/4 m. |
| Time of day, 11,10 Up; of tide, Low. |
| State of sky, Clear, |
| Temperature of air, 6 7 |
| |
| " surface of water, 62 |
| " at depth of fathoms, |
| " of bottom, 51. |
| Depth, in fathoms, / 7 |
| Nature of bottom, Travel, Sand, stones. |
| Direction of surface current, S. W. force 5 |
| Force of surface current, W, S, W, 18 ms |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| A THE PARTY OF COMMUNICATION OF THE PARTY OF |
| |

| Instrument used, Dredge |
|--|
| Current number of observation, 974 |
| Date, aug, 30, 1881, |
| Locality, Of Chalham Crabled |
| Bearings, Chalham Light |
| m, n, w, 1/2 n. 61/2m |
| Time of day, 11,36; of tide, low |
| State of sky, Clear, |
| Temperature of air, 6 7, |
| " surface of water, 62 |
| " at depth of fathoms, |
| " of bottom, 51, |
| Depth, in fathoms, / Co , |
| Nature of bottom, gravel Lend, shones. |
| Direction of surface current, S. W. force 5. |
| Force of surface current, W. S. W. 118m |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

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TEMPERATURE RECORD.

| Instrument used, Dredge |
|--|
| Current number of observation, 970 |
| Date, aug, 30, 1881, |
| Locality, Crab Ledge |
| Bearings, Chalkan Light |
| lu, n, w, 1/4 lo. 61/4 m, |
| Time of day, 11, 45 Min of tide, |
| State of sky, Clear |
| Temperature of air, 68. |
| " surface of water, 63, |
| " at depth of fathoms, |
| " of bottom, 52 |
| Depth, in fathoms, \(\(\mathcal{C} \), |
| Nature of bottom, gravel sand, thones, |
| Direction of surface current, S. W. force, 5 |
| Force of surface durrent, S, 1/800 |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |

Name and position of observer,

Name and rank of commanding officer,

| Instrument used, Dredge |
|--|
| Current number of observation, 976, |
| Date, ang 30/18881 |
| Bearings, Chatham Lights W, N. W. 578 W. Em, |
| Bearings, Chatham Light |
| W, n. W. 78 W. 6m, |
| Time of day, 12m; of tide, flood, |
| State of sky, Clear |
| Temperature of air, 69. |
| " surface of water, 63, |
| " at depth of fathoms, |
| " of bottom, 52, |
| Depth, in fathoms, [], |
| Nature of bottom, gravel, Danis abouts, |
| Direction of surface current, S, W. Garcer 5 |
| Force of surface current, S.S. Willow |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |

| Instrument used, Dredge |
|---|
| Current number of observation, 977 |
| Current number of observation, 977, Date, Aug, 30, 1881, Locality, Crob Ledges Bearings, Chalhan Light |
| Locality, Crab tedge, |
| Bearings, Chalham Light |
| |
| Time of day, 12,20 Phi; of tide, Glood |
| State of sky, Clear, |
| Temperature of air, 70 |
| " surface of water, G 4 |
| " at depth of fathoms, |
| " of bottom, 52, |
| Depth, in fathoms, 17 |
| Nature of bottom, Land pebbles About |
| Direction of surface current, S. W. Lonce, 4 |
| Nature of bottom, founds pebbles of my Direction of surface current, 8, W, force, 4 Force of surface current, W, by W, 114 m |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |

| Dre die |
|---|
| Instrument used, |
| Current number of observation, |
| Instrument used, Current number of observation, Date, Crab Sedge, Locality, Bearings, W. N. W. 6 m. |
| Locality, Crab de del |
| Bearings Chalham Light |
| w. n. m. 6 m. |
| Time of day, 12,30; of tide, blood |
| State of sky, Clean |
| Temperature of air, 70 |
| " surface of water, 64, |
| " at depth of fathoms, |
| " of bottom, 52. |
| Depth, in fathoms, |
| Nature of bottom, Sand pebbles, shones, |
| Nature of bottom, Sand pebbles, stones, Direction of surface current, S. W. force, 5, |
| Force of surface current, w. by n. 18m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |

| Instrument used, Dredge |
|---|
| Current number of observation, 979 |
| Date, Aug 30, 1/88), |
| Locality, Crab . Ledgy |
| Bearings, Chalkain Sights, |
| W, n, W, 14 W. 6 m |
| Time of day, 12,40 p; of tide, |
| State of sky, Clear, |
| Temperature of air, Lo, |
| " surface of water, 6 4 |
| " at depth of fathoms, |
| " of bottom, 52, |
| Depth, in fathoms, ((|
| Nature of bottom, Sun, |
| Direction of surface convent, S. W. Gener 5 |
| Force of surface current; W. by N. 18m |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |

Name and position of observer,

Name and rank of commanding officer,

| Instrument used, Dredge |
|--|
| Current number of observation, 980 |
| Date, aug. 30, 1881, |
| Locality, Crab Ledge |
| Bearings, Chulham Light |
| n. W. by W, 1/4 (0, 53/4 miles |
| Time of day, Puns ; of tide, low. |
| State of sky, Clear |
| Temperature of air, |
| " surface of water, 6 2 |
| " at depth of fathoms, |
| " of bottom, 5-3, |
| Depth, in fathoms, |
| Nature of bottom, Sand, Abons. Jubbles, |
| Direction of surface current, S. W. Lorce 5, |
| Force of surface current, S, W. 15m |
| Direction of bottom current, |
| |

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

980, REMARKS. Up to and including This haul on and about Crab Ledge, Dimilar bollom everywhere in Some places moderates rech in others much less 20, Solastir ende ed)

| Instrument used, Trawl |
|--|
| Current number of observation, 984 |
| Date, Aug, 30, 1881, |
| Locality, Of Chalham. |
| Bearings, Chalham Leght |
| Cu. n. W. 16 au, |
| Time of day, 2,10 Phi of tide, Cloud |
| State of sky, Clear, |
| Temperature of air, 65 |
| " surface of water, 63,5 |
| " at depth of 5 fathoms, 63 |
| " of bottom, 49 |
| Depth, in fathoms, 41, = 43 |
| Nature of bottom, S. grand, |
| Nature of bottom, S. Grand, Direction of surface current, S. W. force 5. |
| Force of surface current, S. 1/4 W. 1/2 m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

| Instrument used, Trawl, |
|--|
| Current number of observation, 982 |
| Date, aug, 20 1887, |
| Locality, Off Chacham |
| Bearings, Lat. 41, 36' M |
| Long, 6 9 0 35 M. |
| Time of day, 2,45 ; of tide, blood |
| State of sky, Clear, |
| Temperature of air, 65° |
| " surface of water, 63,5 |
| " at depth of 5 fathoms, 65 |
| " of bottom, 141,5 |
| Depth, in fathoms, 40 , = 42 |
| Nature of bottom, Sand & gravel |
| Direction of surface current, S. W. force 7. |
| Force of surface current, S. S. W. 1/2 m |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |

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| Instrument used, Thurb |
|--|
| Current number of observation, 9 83, |
| Date, Aug, 30, 18 61, |
| Date, Aug, 30, 1881, Schathe Locality, Lat 41, 30 n Spohath |
| Bearings, Long, 69 = 32' 34" W |
| 0 |
| Time of day, 3, 23 River blood |
| State of sky, Clear, |
| Temperature of air, 64,5 |
| " surface of water, 6 4 |
| " at depth of 5 fathoms, 62, |
| " of bottom, 42, |
| Depth, in fathoms, 35, = 36 |
| Nature of bottom, Sand, |
| Direction of surface current, S. W. force 7. |
| Force of surface current, S, by E, 1/2 m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

Name and position of observer,

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Hippasteria phygraina 2

| Instrument used, Trawl |
|--|
| Current number of observation, 984, |
| Date, aug, 30, 1881, |
| Locality, Off Chathana |
| Bearings, Lat, 41031/20 |
| day, 690281 324 W |
| Time of day, 4,0 this of tide, Cloud |
| State of sky, Clear. |
| Temperature of air, 6 4 |
| " surface of water, 63,5 |
| " at depth of 5 fathoms, 63, |
| " of bottom, 4/5 |
| Depth, in fathoms, 32, = 33, |
| Nature of bottom, and and sand |
| Direction of surface current, S. W. Serceb |
| Force of surface current, 8,1/2 W. 1/200. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

Aippasteria phrygiana 3

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| Instrument used, Trawl |
|---|
| Current number of observation, 985 |
| Date, Sept. 7. 1881 |
| Locality, Of No Maris Sand South |
| Bearings, Lat 410 001/ |
| Long, 70° 49' W. |
| Time of day, / 2, 55 p; of tide, |
| State of sky, Clear, hazy horizon, |
| Temperature of air, 730 |
| " surface of water, 66° |
| " at depth of 5 fathoms, 6 4 ° |
| " of bottom, 50° |
| Depth, in fathoms, 26 |
| Nature of bottom, Sand, |
| Direction of surface current, S. W. force, 3. |
| Force of subface current, S. W. by S&, 1/4 m |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

Name and position of observer,

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985. REMARKS. Echinarachnin barma bey many clarge, Suberiles comple very many. Sagitta elegans, very abottin

| VT 0 |
|---|
| Instrument used, Trawl |
| Current number of observation, 986, |
| Date, Dept. 7, 1887 |
| Locality, 19 miles o, of No Mans Van |
| Bearings, Oal, 40 |
| Long. 70° 48 W. |
| Time of day, 2, RM, ; of tide, |
| State of sky, Clear, |
| Temperature of air, 73° |
| " surface of water, 6 7° |
| " at depth of 5 fathoms, 63° |
| " of bottom, 49° |
| Depth, in fathoms, 28, |
| Nature of bottom, Sand, |
| Direction of surface current, S. W. force, 3, |
| Rorce of surface current, Si/2W, 1m, |
| Direction of bottom current, |
| |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

Sagita very abot in wings

| 01. T 0 1 8 0. |
|--|
| Instrument used, Chester Rake Dredge |
| |
| Current number of observation, 987 |
| Data Pert, 7, 1881 |
| Date, |
| Locality, Mo Many Dand |
| - Lat 400 54' n |
| Bearings, |
| Date, Date, 7, 1881. Locality, Off No Man's Land Bearings, Lat, 40° 54' N. Long, 70° 481 30" W. |
| |
| Time of day, 2,28; of tide, |
| State of sky, Clear, |
| |
| Temperature of air, 73° |
| |
| " surface of water, 67° |
| " at depth of 5 fathoms, 6 6, |
| |
| " of bottom, 490 |
| |
| Depth, in fathoms, 28, |
| Nature of bottom, Sand |
| lurind ~ 0 2 |
| Direction of surface current, S. W. force 3. |
| |
| Force of surface current, |
| Direction of bottom current, S. 1/2 m. |
| Discousi of obtom ourient, |
| Force of bottom current, |
| Name of vessel, |
| name of vessel, |
| To what service attached, |
| N l l - c li c |
| Name and rank of commanding officer, |
| |
| |

| A |
|--|
| Instrument used, Chester Rake Drick |
| Current number of observation, 988 |
| Date, Sept, 7, 84, |
| Locality, off no many Land |
| Bearings, Lat, 40° H9' 30" M |
| Long, 70° 47' Kg |
| Time of day, 3, 30; of tide, |
| State of sky, Clear |
| Temperature of air, £3 ° |
| " surface of water, 6 7 |
| " at depth of 5 fathoms, 64 |
| " of bottom, 49,50 |
| Depth, in fathoms, 30 |
| Nature of bottom, Sand |
| Direction of surface ourrant, S. W. force 3. |
| Force of surface current, S. /2 m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

not much camento,

| Instrument used, Trawls, |
|---|
| Current number of observation, 989 |
| Date, Sept, 7, 1881 |
| Date, Gers, 7, 100 |
| Locality, of Noman's Vand |
| Bearings, 201, 400 49 1 |
| Korg. 700471 W |
| Time of day, 3, 5 7; of tide, |
| State of sky, Clear |
| Temperature of air, Z 3 ° |
| " surface of water, 6 7 |
| " at depth of 5 fathoms, 640 |
| " of bottom, 49, .5° |
| Depth, in fathoms, 30, |
| Nature of bottom, Land |
| Direction of surface current, S. W. force 3 |
| Force of surface current, & 3/4 m, |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

989, REMARKS. Echinarachnin farma very abot Peclen Linuicostalts, very abot, ber Jury Asterias vulgaris, Septasterias compla, Corypnorpha

| Instrument used, & Fraul |
|---|
| Current number of observation, 9 9 0 |
| Date, Sept. 7, 1881 |
| Locality, Off noman's Land |
| Bearings, Lat. 400 44 ng |
| Long, 700 471 W. |
| Time of day, 5,03 p; of tide, |
| State of sky, Clear |
| Temperature of air, 11,50 |
| " surface of water, 66 |
| " at depth of 5 fathoms, 64° |
| " of bottom, 470 |
| Depth, in fathoms, 34 |
| Nature of bottom, I, Mud Hand, |
| Direction of surface current, Prsm, force 3 |
| Force of surface current, S12W, 314 m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |

Name and position of observer,

Name and rank of commanding officer,



| Instrument used, Theuve |
|--|
| Current number of observation, 991 |
| Date, Sept, 7, 1884, |
| Locality, off nomant Land |
| Bearings, Lat. 400391 N |
| Leng, 700 46' W. |
| Time of day, 6,05 Pi of tide, |
| State of sky, Clear |
| Temperature of air, Zo |
| " surface of water, 66 |
| " at depth of 5 fathoms, 64° |
| " of bottom, 47,50 |
| Depth, in fathoms, 34 |
| Nature of bottom, Greenmud & Raud |
| Direction of conface current, NSW, force 3 |
| Force of surface current, S, 14 W, 1/4 m. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

property and analysis of the second of the second

| Instrument used, Trawl |
|--|
| Current number of observation, 992, |
| Current number of observation, 992, Date, Sept. 7, 1881, |
| Locality, off noman's Land |
| Bearings, Lat, 40° 33' n |
| Long, 70° 45' W. |
| Time of day, 7, 3 5 Py; of tide, |
| State of sky, Clear |
| Temperature of air, 690 |
| " surface of water, 65 |
| " at depth of 5 fathoms, 63° |
| " of bottom, 480 |
| Depth, in fathoms, 36, |
| Nature of bottom, freenmed to and |
| Direction of surface current, Mr, S, Mr, force 3, |
| Force of surface corrent, 5, 1/8 mile. |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

| 9 0 |
|---|
| Instrument used, Trawl |
| Current number of observation, 993 |
| Date, Sept. 7, 1888 |
| Locality, Off noman's Land, |
| Bearings, Lat, 40°281 n, |
| Long, 70° 44' W, |
| Time of day, 8,24m; of tide, |
| State of sky, Plear, |
| Temperature of air, 690 |
| " surface of water, 65° |
| " at depth of Tathoms, 630 |
| " of bottom, 46,60 |
| Depth, in fathoms, 39, |
| Nature of bottom, mud |
| Direction of surface current, NS, N, |
| Force of surface current, Lerce, 4, |
| Force of surface current, Direction of bottom current, 8, 78 mile |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

| PO |
|--|
| Instrument used, Vaw |
| Current number of observation, 994 |
| Date, Sept. 8, 1881. |
| Date, Sept. 8, 1881. Locality, Of Block Id. |
| Bearings, Lat. 390 40'n |
| Kong 71. 30' W, |
| Time of day, H, 500; of tide, |
| State of sky, Clear, |
| Temperature of air, 72° |
| " surface of water, 68 |
| " at depth of 5 fathoms, 69 |
| " of bottom, 40,5 |
| Depth, in fathoms, 3 6 8 |
| Nature of bottom, Much |
| Direction of surface current, n.n. N. Lovee 3. |
| Direction of surface current, n, n, m, force 3, Force of surface current, n, wby W12 W. 2/2m |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |

Name and position of observer,

Name and rank of commanding officer,

| Instrument used, Haw |
|--|
| Current number of observation, 9 9 5 |
| Current number of observation, 995 Date, Sept. 8, 1881. |
| Locality, Off Block Id |
| Bearings, Lat. 390 40: 30" N |
| Long, 71021' W. |
| Time of day, 6, 3 2 Cyof tide, |
| State of sky, Gartly Cloude, hagy, |
| Temperature of air, 720 |
| " surface of water, 680 |
| " at depth of 5 fathoms, 690 |
| " of bottom, 40,50 |
| Depth, in fathoms, 358 |
| |
| Nature of bottom, Illow mud Jand, Direction of surface current, n.n. w, Giree 3, |
| Force of surface current, n. W. by M. 1/2N, 1/2m |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer. |

| Instrument used, Rake Dredge |
|---|
| Current number of observation, 996 |
| Date, Sept, 8, 1884 |
| Locality, Off Block 2d |
| Bearings, Lat, 39041'n |
| Ling, 41031'37" W. |
| Time of day, 7, 35; Office, 1 |
| State of sky, Sarth Blond, |
| Temperature of air, 450 |
| " surface of water, 6 7, 50 |
| " at depth of 5 fathoms, 650 |
| " of bottom, 400 |
| Depth, in fathoms, 3 4 6 |
| Nature of bottom, Ifellow mud to an |
| Direction of surface current, n, n, W, |
| Force of surface current, Lorce, 3, |
| Direction of bottom current, n, W, 18 m |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer. |

| In In the |
|---|
| Instrument used, |
| Current number of observation, 997 |
| Date, & ept, 8, 1881. |
| Locality, Of Block Id |
| Bearings, Lat, 390 421 2, |
| Long, 71° 32' W, |
| Time of day, 9, 0 30, of tide, |
| State of sky, failly Clouds |
| Temperature of air, 750 |
| " surface of water, 6 7,50 |
| " at depth of 5 fathoms, 65 |
| " of bottom, 40° |
| Depth, in fathoms, 335. |
| Nature of bottom, Allowo mud |
| Direction of current, n. E. |
| Force of surface current, force, 3, |
| Direction of bottom current, n. by W. / nucle |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |
| |

| Instrument used, Trawl |
|---------------------------------------|
| Current number of observation, 998, |
| Date, Sept. 8. 1887, |
| Locality, Off Block Id, |
| Bearings, 221, 390 431 2 |
| Long, 410 321 W, |
| Time of day, 10, 34 Caride, |
| State of sky, Lazy |
| Temperature of air, |
| " surface of water, 6 |
| " at depth of 5 fathoms, 63° |
| " of bottom, 40, |
| Depth, in fathoms, 302, |
| Nature of bottom, freenund, |
| Direction of surface current, & N & |
| Force of surface current, |
| Direction of bottom current, M 1/4 m. |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |
| Name and rank of commanding officer, |

| Instrument used, Rake Dredge |
|--|
| Current number of observation, 999, |
| Date, Sept. 8, 1887, |
| Locality, Off Block 2d |
| Bearings, Lat, 390 H5 1312 |
| Long, \$10 301 W. |
| Time of day, //, 48 Ordifide, |
| State of sky, hazy, |
| Temperature of air, 7 3 0 |
| " surface of water, 68 |
| " at depth of 5 fathoms, 63° |
| " of bottom, 420 |
| Depth, in fathoms, 266, |
| Nature of bottom, freen mud |
| Direction of surface current, EME |
| Force of surface current, for ce 4, |
| Direction of bottom current, N. N. N. 3/4 m. |
| Force of bottom current, |
| Name of vessel, |
| |

Name and position of observer,

Name and rank of commanding officer,

To what service attached,

TEMPERATURE RECORD.

0-/024 Xookont 1000-1024

Instrument used.

Current number of observation.

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

- surface of water,
- at depth of fathoms,
- of bottom,

Depth, in fathoms,

Nature of bottom.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

| Instrument used, Trawl |
|---|
| Current number of observation, / O 2 5 |
| Date, Sept, 8, 1887 |
| Locality, Off Block Id |
| Bearings, Sat. 3904912 |
| Lyng, 71025 N. |
| Time of day, 1,05 Ru of tide, |
| State of sky, Clear |
| Temperature of air, 7/ |
| " surface of water, 690 |
| " at depth of 5 fathoms, 6 80 |
| " of bottom, 45 |
| Depth, in fathoms, 2/6, |
| Nature of bottom, Sceen mud |
| Direction of surface current, N. E. by & |
| |
| Porce of surface current, Gence, 4, Direction of bottom current, N. 14 & 1 mile |
| Force of bottom current, |
| Name of vessel, |
| To what service attached, |

Name and position of observer,

Name and rank of commanding officer,

| Current number of observation, 1026. Date, Sefe, F. 1887. Locality, Off Block Vd. Bearings, Lat. 39050'30" M. Cury, F1023' W. Time of day, 2, 55 Prof tide, State of sky, Clear, Temperature of air, 690 " surface of water, 69" " at depth of fathoms, 680" " of bottom, 47, 5 Depth, in fathoms, 182, Nature of bottom, Green mad Direction of surface current, force 5. Force of surface current, M. Ly E. 142m Force of bottom current, Name of vessel, To what service attached, Name and rank of commanding officer, | Instrument used, Trawl |
|--|---|
| Bearings, Lat. 39050'30" M Cong #1023' W Time of day, 2, 55 Phof tide, State of sky, Clear Temperature of air, 690 " surface of water, 69" " at depth of fathoms, 650" " of bottom, 47, 4 Depth, in fathoms, 182, Nature of bottom, Green mad Direction of surface current, E. M. E. Force of surface current, M. Ly E. 1/1/2m Force of bottom current, Name of vessel, To what service attached, | |
| Bearings, Lat. 39050'30" M Cong #1023' W Time of day, 2, 55 Phof tide, State of sky, Clear Temperature of air, 690 " surface of water, 69" " at depth of fathoms, 650" " of bottom, 47, 4 Depth, in fathoms, 182, Nature of bottom, Green mad Direction of surface current, E. M. E. Force of surface current, M. Ly E. 1/1/2m Force of bottom current, Name of vessel, To what service attached, | Date, Sept. A. 1881. |
| Bearings, Lat. 39050'30" M. Cong. Flood tide, Time of day, 2, 55 Phof tide, State of sky, Clear, Temperature of air, 690 " surface of water, 690" " at depth of fathoms, 680" " of bottom, 47, 45 Depth, in fathoms, 182, Nature of bottom, Green mad Direction of surface current, for ce 5. Force of surface current, M. by E. 142m Force of bottom current, Name of vessel, To what service attached, | Locality, Off Block Vd |
| Time of day, 2, 55 Prof tide, State of sky, Clear, Temperature of air, 690 "surface of water, 690 "at depth of fathoms, 680 "of bottom, 47, 5 Depth, in fathoms, 182, Nature of bottom, Green much Direction of surface current, for ce 5, Force of surface current, for ce 5, Direction of bottom current, Name of vessel, To what service attached, | Bearings, Lat. 39050'30" n |
| Time of day, 2, 55 Mof tide, State of sky, Clear, Temperature of air, 690 "surface of water, 690 "at depth of fathoms, 680 "of bottom, 47, 5 Depth, in fathoms, 182, Nature of bottom, Green Me, Direction of surface current, for ce 5, Force of surface current, Name of vessel, To what service attached, | |
| Temperature of air, 69° "surface of water, 69° "at depth of 5 fathoms, 65° "of bottom, 47, 5 Depth, in fathoms, /82, Nature of bottom, 62° Direction of surface current, 62° Force of surface current, 62° Force of bottom current, 70° Force of bottom current, 70° Name of vessel, To what service attached, | |
| " surface of water, 69° " at depth of 5 fathoms, 65° " of bottom, 47,5 Depth, in fathoms, 182, Nature of bottom, 620, Direction of surface current, 600 ce 5, Force of surface current, 100 ce 5, Force of bottom current, 100 ce 5, Force of bottom current, 100 ce 5, To what service attached, | State of sky, Clear, |
| " at depth of 5 fathoms, 6 for " of bottom, 4 f statement, 18 2. Nature of bottom, Green mid Direction of surface current, E. M. E. Force of surface current, Sorce 5. Direction of bottom current, M. L. E. 1/1/2m Force of bottom current, Name of vessel, To what service attached, | Temperature of air, 690 |
| " of bottom, 47, 5 Depth, in fathoms, 182, Nature of bottom, Green mid Direction of surface current, & N. E. Force of surface current, & N. E. 142m Force of bottom current, Name of vessel, To what service attached, | " surface of water, 690 |
| Depth, in fathoms, /82, Nature of bottom, Green much Direction of surface current, Force of surface current, Direction of bottom current, Mame of vessel, To what service attached, | " at depth of 5 fathoms, 6 f |
| Depth, in fathoms, /82, Nature of bottom, Green much Direction of surface current, Force of surface current, Direction of bottom current, Mame of vessel, To what service attached, | " of bottom, 47, 5 |
| Direction of surface current, Force of surface current, Direction of bottom current, Proce of bottom current, Name of vessel, To what service attached, | |
| Force of surface current, Direction of bottom current, Porce of bottom current, Name of vessel, To what service attached, | Nature of bottom, Freen mud |
| Force of bottom current, Name of vessel, To what service attached, | Direction of surface ourrent, & NE |
| Force of bottom current, Name of vessel, To what service attached, | Force of surface current, Lorce 5, |
| Force of bottom current, Name of vessel, To what service attached, | Direction of bottom current, On. by E. 1/2m |
| To what service attached, | |
| | Name of vessel, |
| Name and rank of commanding officer, | To what service attached, |
| | Name and rank of commanding officer, |

| Instrument used, Double Frank |
|--|
| Current number of observation, / O Z Z, |
| Current number of observation, / O Z Z, Date, / U / J / S / J |
| Locality, |
| Bearings, Lat, 40.00'00" N. |
| Long. 69° 19' W. |
| Time of day, 7,23 air of tide, |
| State of sky, Clear |
| Temperature of air, |
| " surface of water, 65 |
| " at depth of fathoms, 66 |
| " of bottom, 48,5 |
| Depth, in fathoms, 93. |
| Nature of bottom, Fine Dand |
| Nature of bottom, Fine Dans Direction of surface current, & M. E. force 3 |
| Force of surface current, 21, 3/4 mile |
| Direction of bottom current, |
| Force of bottom current, |
| Name of vessel, |

Name and position of observer,

Name and rank of commanding officer,

To what service attached,

1027, REMARKS.

Almost a water haul,
Brought up about fish,
and a few invertebrats
from bottom, her
Covered with large
Sulpai, wings had
a few copepads and
large saepaie,

Double

| Instrument used, |
|--|
| Current number of observation, 1028 |
| Date, Sept, 14, 1881, |
| Locality, |
| Bearings, Lat. 39057'2 |
| Loy. 69,17 12. |
| Time of day, 9,0 / a is of tide, |
| State of sky, Clear |
| Temperature of air, 66,5 |
| " surface of water, 66. |
| " at depth of 5 fathoms, 66 |
| " of bottom, 4/ |
| Depth, in fathoms, 4/0 |
| Nature of bottom, Jellow much Direction of surface current, n. 2, force 3, |
| Direction of surface current, n. E. force 3. |
| Force of surface current, n. n. E. 1/2 m. |
| Direction of bottom current, |
| Force of bottom current, |

Name and position of observer,

Name and rank of commanding officer,

To what service attached,

Name of vessel,

1028, This hawl was over an hour coming up on a cet of the engine being unable to reel it in. By the motion of the ship it was allowed to size and suite by the role and at times it was howed Chro' water to clearch of some of its Contento,