## 179.—BRIEF NOTES UPON FISH AND FISHERIES.

By CHAS. W. SMILEY.

[Mainly extracts from the official correspondence.]

PRICES OF SMALL NETS.—For the benefit of correspondents who are continually inquiring about nets for taking carp and other pond fish, the following prices are quoted from the catalogue of William Mills & Son, 7 Warren street, New York. Probably other dealers furnish about the same things at corresponding prices:

| | Inches long. | Cotton (each). | Linen (each). |
|---|---|---|---|
| Fine mesh, minnow nets | 12 | $0 30 | $0 45 |
| Do | 14 | 35 | 50 |
| Do | 16 | 40 | 50 |
| Do | 18 | 50 | 65 |
| Do | 20 | 60 | 75 |
| Do | 24 | 75 | 1 00 |
| Do | 30 | 1 00 | 1 25 |
| Do | 36 | 1 25 | 1 50 |
| Do | 48 | ..... | 2 50 |
| Cotton dip nets, three-quarter inch mesh | 16 | 30 | ..... |
| Do | 20 | 35 | ..... |
| Do | 24 | 40 | ..... |

A SUGGESTION FOR AVOIDING THE DANGER INCIDENT TO THE TRANSFER OF FISH FROM THE SMACKS TO THE COLLECTING STEAMERS.—Mr. John Bland, of 62 Harley street, Cavendish Square W., London, writing under date of December 17, 1883, to General Chester A. Arthur, President of the United States, makes the following suggestion:

"In a paper read at one of the conferences held in connection with the exhibition it was said that one of the most arduous and dangerous duties of the modern sea-fisherman was to carry the fish from the smack in which they were caught, to the collecting steamer, more lives being lost in this part of the work than in any other. It is obvious that it would be very imprudent in rough weather for the steamer to attempt to stay alongside the smack a sufficient length of time for the whole of the take to be transferred directly from one to the other, so a small boat has to go to and fro several times, to the great risk of its occupants.

"An extremely simple and inexpensive method of saving this dangerous labor has occurred to me. I would suggest that, at a distance of sixty or a hundred yards, the collecting steamer throw by rocket a slight line to the smack. By means of this line the smack would draw to itself an endless rope, to be arranged over a loose block 6 or 8 feet above the deck. A box or barrel of fish would be attached to the lower part of the rope, by means of a simple hook, then dropped overboard and drawn to the steamer by steam power. A few minutes immersion would

not do the slightest harm to the boxes, and, as the water would support the greater part of the weight, a dozen packages of fish might be attached to the rope at the same time, with a short distance between them, say one box for every 6 yards of rope. By this means I believe the catch could be transferred day or night, and in almost all weather, with a tenth part of the present labor and no risk to life or boats, as quickly as the steamer could haul the boxes up her sides. A supply of empty cases could be sent to the smack in the same manner."

A RAINBOW TROUT REARED FROM EGGS BROUGHT FROM CALIFORNIA.—On February 19, 1884, Mr. H. R. Clarke, of the South Side Sportsmen's Club, of Oakdale, Long Island, wrote to Professor Baird as follows: "I send you, per Adams Express, a rainbow trout measuring 20 inches in length and weighing 3 pounds 4 ounces. It died day before yesterday. I thought I would send it to you just to show the size and form, its colors being almost faded out. It was raised from the eggs you so kindly gave us four years ago. I measured one this morning that is 23¾ inches in length. I think it will weigh over 4 pounds, being four years old in March. There are at the present time in our preserves 104 from the original hatching of the 1,000 eggs from you, 1,050 two years old, and over 10,000 one year old. Those two years old will weigh from one-half to 1¼ pounds."

GROWTH OF RAINBOW TROUT.—A correspondent of Forest and Stream, writing from Waterville, N. Y., March 6, 1884, says: "Two years ago about 10,000 California mountain trout were put into a pond in this village. The next spring we found that the growth of these trout, compared to that of our native trout, was astounding. The following August one weighing three-quarters of a pound was caught by a small boy. I would never have believed that their growth was so rapid had I not seen the fish weighed. The trout at the time this large one was caught were a little over a year old. Now many of our fishermen are wild on the subject of California trout, and we shall put 20,000 more into the same pond again this summer. But for one, I do not think that they compare with our own brook trout in gameness, flavor, or beauty. But our experiment was a decided success. For the past three or four years we have been stocking our streams with brook trout, and find the fishing very much improved thereby. Unless something unforeseen occurs we shall continue to stock them every year."

THE VALUE OF A WHALE.—C. A. Williams & Co., of New London, Conn., received returns, May 20, of the sale of the products of a whale captured recently by the crew of ship Lizzie P. Simmons, of that port. The whalebone fetched $12,230 and the oil $3,490 in Scotland, making the total value of the whale $15,720. This is the largest yield from a single whale on record. The monster was caught in Cumberland Inlet. [New York Tribune, May 22, 1864.]

SENDING TROUT EGGS FROM GERMANY TO ENGLAND.—According to the Fishing Gazette of January 19, 1884, Dr. F. Zenk, proprietor of the Seeweise Fish-breeding Establishment near Würzburg, Germany, is sending to England lake trout eggs, *Salmo fario*. They are forwarded in a square box containing another smaller, perforated box embedded in damp moss. This being opened disclosed more damp moss, beautifully cool, and in the midst of this, enveloped first in coarse wadding and then in fine muslin, a nest of splendid eggs. A lot received by the Fishing Gazette contained only a dozen or two of dead ones in the whole lot. The dead eggs, being white and opaque, are easily discerned by their contrast to the beautiful, translucent, orange-tinted, eyed ova. Dr. Zenk offers 80,000 of these eggs at 9 shillings per thousand. Those hatched and deposited in England last year and the year before are reported to be doing very well.

ARRIVAL OF GERMAN TROUT EGGS.—The steamer Donau, of the North German Lloyds, recently brought 70,000 eggs of *Salmo fario* to this country. Forty thousand of these were consigned to Mr. E. G. Blackford on account of New York. The eggs were of two kinds, large and small, and were sent to Cold Spring Harbor for distribution. They have been divided between Northville, Mich.; Central Station, Washingington; Wytheville, Va.; Caledonia, N. Y.; and Cold Spring Harbor. They came from the ponds of Mr. C. Schuster, Freiburg, Baden, and were in good order. The North German Lloyds made no charge for transportation. [From Forest and Stream, March 6, 1884.]

DEAD FISH.—Thousands of dead fish, mostly perch, have been washed ashore off Lake Mendota during the past week. It is said that Street Commissioner Bishop removed from the city shore of Mendota one day not less than 15 tons of dead perch. Dr. Rowley, of Middleton, reports that the shores near his village are covered with victims of the same finny tribe, and the people out there are considerably alarmed as to the consequences of so much decaying matter. From microscopic examination of the dead fish, Dr. Rowley has come to the conclusion that the deadly animal is a parasite, which attacks its victims near the gills. The first symptom of distress is noticed by the fish throwing its head out of the water and gasping. In a few moments it is entirely helpless. The water of the lake for days past has presented thousands of floating bodies of fish. It is thought the worst is now over. The health of the city prompts vigorous work.—MADISON, WIS., *July* 19, 1884. [From the American Field, July 26, 1884.]

SHAD IN THE POTOMAC, 1854 to 1881.—Mr. Withers Waller, writing from Markham, Fauquier County, Virginia, says:

"When I commenced fishing in 1854 there were fifty large seines hauled on the Potomac. Now I doubt if there are more than eight or

ten. During all the years from 1854 to 1860, inclusive, fish were very abundant, with the exception of 1857, when there were scarcely any, and the fishermen lost heavily. From 1854 to 1860 we caught an average each year of 1,500,000 herring and 30,000 shad, with the exception of 1857, when there were no fish. In 1861, '62, '63, '64, '65, and '66 there was no fishing on the Virginia side as low down the river as Stafford County, near Aquia Creek, and I suppose very little anywhere on the Potomac. 1877 and 1878 were good seasons, the catch amounting to from 800,000 to 1,000,000 herring and 15,000 shad. In 1879 there were scarcely any fish. With a seine 1,200 fathoms long, and worked with fifty men and seven horses, I caught only 150,000 herring and 4,000 shad during the season of thirty days. Since then there has been a gradual increase, ranging from 300,000 to 400,000 herring and 8,000 shad, which has scarcely paid expenses, and unless there is a change within the next five years there will not be a large seine hauled on the Potomac. Artificial hatching has not come up to my expectations, though there is no telling how scarce fish would be but for the artificial propagation. I think if the Government would rent the shores on four or five creeks, which could be worked at the cost of building two small steam-launches, and allow no fish to be taken out of these creeks, that it would do more to restock the river with fish than the same amount of money laid out in any other way. Take all the shores in Aquia Creek, for instance, which could be rented for $500 to $800. Some other creeks could be rented in the same way. This plan, together with the hatching, would, I think, give us a plentiful supply of fish.

FIRST BREEDING OF SALMON AND TROUT IN CANADA.—Breeding salmon and trout by artificial process was first practiced in Canada by Richard Nettle, esq., then superintendent of fisheries, in 1858, in a Government hatchery at Quebec. The experiments were measurably successful. Mr. Nettle was enabled to deposit vivified eggs in considerable numbers and to hatch out and distribute a large proportion of living healthy fry. He also transported impregnated ova to Australia. This enterprise was authorized by several ministers, the Hon. Mr. Cauchon, Judge Sicotte, and the Hon. William MacDougall. It was not continued by the latter because the means provided by the legislature were absorbed in controlling and improving the salmon rivers proper, all available resources being required to guard the streams against destructive practices which had brought the salmon fishery in the province of Quebec to the verge of ruin. Mr. Nettle, however, succeeded single-handed, and with a very meagre outfit, in proving the feasibility of breeding salmon and trout by artificial means, and he deserves the credit of initiation and perseverance involving severe exposure and strong personal enthusiam. Another successful instance of artificial salmon-hatching occurred in 1867, under instructions from the Hon. P. Mitchell, on the Miramichi River, New Brunswick, conducted by Messrs. Stone and Goodfellow,

assisted by W. H. Venning, esq., inspector of fisheries for that province.—W. F. Whitcher in the Montreal Gazette, May 5, 1884.

DECLINE OF THE CANADIAN SALMON FISHERIES.—Regarding the alleged increase of produce from rivers in which salmon artificially bred have been placed, and the corresponding decrease from rivers dependent on natural propagation, Mr. W. F. Whitcher, formerly inspector of fisheries of Ottawa, Canada, says in the Montreal Gazette of May 5, 1884:

"That a fluctuating decline of the salmon fishery since 1874 has occurred throughout the eastern section of the Dominion of Canada it is useless and unwise to deny. The precise extent to which this declension has been arrested during a series of years, on the one hand by reserving and guarding the natural spawning grounds, eradicating abuses, imposing restrictions in the modes, and curtailing the periods of fishing, by constructing fish-ways and removing obstructions to the ascent of salmon, by opening up new and extensive breeding areas, and by regulating and protecting the inland fisheries generally, and on the other hand by planting salmon fry artificially hatched— all of these form a fair subject for impartial inquiry."

He then gives figures, from which I compile the following table:

*Table of salmon caught in Quebec, New Brunswick, and Nova Scotia for fourteen consecutive years, 1869–'82.*

| Years. | Pounds. | Per cent. of 1874's yield. |
|---|---|---|
| *Period preceding artificial hatching.* | | |
| 1869 | 2,466,020 | 41 |
| 1870 | 4,022,992 | 66 |
| 1871 | 3,646,475 | 60 |
| 1872 | 3,745,302 | 62 |
| 1873 | 5,54[illegible],929 | 91 |
| 1874 | 6,047,994 | 100 |
| *Period of artificial hatching.* | | |
| 1875 | 3,413,192 | 56 |
| 1876 | 2,615,555 | 43 |
| 1877 | 3,332,935 | 55 |
| 1878 | 3,712,476 | 61 |
| 1879 | 3,162,638 | 52 |
| 1880 | 1,708,645 | 28 |
| 1881 | 1,282,669 | 21 |
| 1882 | 2,142,886 | 35 |

In the three provinces named, under the natural system there was a gradual increase in the yield. Artificial fish-hatching was resumed in Eastern Canada in 1873–'74. After eight years of artificial hatching, the quantity fell in 1881 to 21 per cent of what it was at the beginning.

Mr. Whitcher seems opposed to artificial hatching, and the above figures are used to argue its inefficiency. Of course the advocates of fish-culture should also stare these facts squarely in the face, and ascertain what are the causes of this remarkable decline in the midst of their best efforts.

CALIFORNIA SALMON REARED IN WISCONSIN.—The first California salmon put into Geneva Lake were deposited in April, 1876. There were 25,000 sent to me from the United States hatchery in Michigan. Later in the season the Wisconsin commission put in 15,000 more. There were about twenty taken last summer weighing from 2 to 4 pounds each. This summer I had heard of only four or five having been taken, the largest of which weighed 3½ pounds, so that I was hardly prepared for so large a fish. He was 30 inches long, 18 round, and weighed 12¾ pounds. It was a male fish, so of course I cannot report on the development of the ovaries. The hooks in maw and jaw were well developed, and as this is about the spawning season of the California salmon I feel convinced that the pair were looking about for a spawning place. The flavor of the salmon was most excellent. The meat was of a light pink color, but not as dark as the native California salmon we find in the markets. In other respects it was quite as good. It was taken by a boy while trolling with a spoon hook near the shore, in about 15 feet of water. An hour after, Mr. William Welsher, the superintendent of the hatchery and ponds, saw another one, about the same size, in the locality where the first one was hooked. From this circumstance I infer that they had paired and had come up from the deep water to look for a spawning ground or for a way out of the lake. They were near the mouth of a small stream which empties into the lake, and which has its source about one mile back.—N. K. Fairbanks, Geneva Lake, Wisconsin, August 5, 1880.

We have taken another California salmon in Geneva Lake, or rather in the stream emptying into it.

On Sunday, Sept. 19th, Mr. W. A. Welsher went to the brook to catch some minnows for bait, and heard a splashing in the brook under a bunch of willows. Supposing it to be a mink or musk-rat, he did not at once go to the spot, but, as the commotion continued, he took an observation, and to his surprise discovered seven or eight large salmon. He had no means of capturing them at the time, but the next day went with a net and propagation-pans, expecting to take both male and female fish. He only found one—a fine female weighing 8½ pounds and full of ripe eggs.

These fish were spawning, and of course were up this small brook for no other purpose. It is a small stream, only 1 mile from the springs which feed it to the lake, but has water enough for them to get up without trouble, and has also a good many holes and hiding-places.—Geneva Lake, Wisconsin, September 23, 1880.

TROUT-BREEDING.—I commenced the first of last December to catch trout from the spawning beds by fishing through the ice with a beardless hook. I got 30,348 eggs, of which I hatched 95 per cent or more. I had on one screen 2,300 eggs, and I kept account of the bad ones. I took out 92 bad eggs, and I think it was about the average. I have

the very best of running water. I did not kill or lose more than 11 trout in the operation.

I finished catching for spawning purposes on the 7th of January, 1884. The trout spawned here in Crestine Lake until May. On one spawning bed I took some occasionally all winter, in order to satisfy myself that they were spawning all winter. Those that I caught thus I put back.—S. M. Crawford, Camp Percy, Stark Water, N. H., *July* 26, 1884.

NOTE ON SEA BASS, SKATES, ETC.—Mr. Fred Mather, writing under date of July 29, 1884, says: "I spent last week at Pasque Island, by invitation of Mr. James L. Vallotton, of the Pasque Island Club. Six men fished all the week and only took six fish; the largest one was 17½ pounds. I did not take any. The Cuttyhunk Club is not taking many, neither is the Squibnocket Club, nor are the trap-net fishermen.

"At low tide we took plenty of sea bass, which are not yet spawning there. I obtained four eggs from two skates and they had many yelks yet to cover, showing that they have just begun. The eggs are now at Cold Spring Harbor, N. Y."

A LARGE BASS.—L. B. Crooker, collector of internal revenue, Aurora, Ill., reported in 1880: "I saw weighed and measured a small-mouthed black bass caught in Fox River, near this point, the other day. Its weight was 7 pounds 6 ounces; its length, 23 inches. This is the largest fish of this variety I have ever seen during a lifetime in the West. I believe it to be the largest ever caught in Northern Illinois."

FISH AND OYSTERS FOR NEW SOUTH WALES.—Mr. Charles Kahlo, consul at Sydney, New South Wales, reported, under date of August 28, 1883, that the annual consumption of dried, salted, and preserved fish is about 5,000,000 pounds annually, about one-half of which is brought from California. The duty on fish is 2 cents per pound.

The oysters found in this and adjacent colonies are of a very poor quality. If American oysters could be shipped in cans so as to arrive in good condition they would meet with ready sale. [House Mis. Doc. 12, Forty-eighth Cong., first session.]

EXPORT OF PEARLS AND PEARL-SHELLS FROM MEXICO.—The following table has been compiled from report of Warner P. Sutton, consul-general at Matamoros, November 30, 1883. [House Mis. Doc. 12, Forty-eighth Cong., first session, part 2, p. 233.]

| Articles. | Average for five years, ending June 30, 1882. | Year ending June 30, 1882. | Year ending June 30, 1883. | Total for seven years, ending June 30, 1883. |
|---|---|---|---|---|
| | *Dollars.* | *Dollars.* | *Dollars.* | *Dollars.* |
| Pearls | 32, 984. 02 | 37, 500. 00 | 18, 500. 00 | 220, 920. 10 |
| Pearl-shells | 42, 856. 27 | 71, 141. 82 | 44, 414. 00 | 329, 837. 17 |
| Total | 75, 840. 29 | 108, 641. 82 | 62, 914. 00 | 550, 757. 27 |

IMPORTS AND EXPORTS OF GERMANY.—The imports and exports of cod and herring are given by Commercial Agent Smith, of Mayence, in kilograms, as follows [House Mis. Doc. 12, Forty-eighth Congress, first session, part 2, p. 727]:

| Period. | Dried cod. | | Salted herring in casks. | |
|---|---|---|---|---|
| | Imports. | Exports. | Imports. | Exports. |
| In September, 1882 | 54,200 | 600 | 11,986,200 | 9,600 |
| In October, 1882 | 82,600 | 500 | 12,209,500 | 13,600 |
| In September, 1883 | 93,700 | 900 | 10,672,800 | 16,800 |
| In October, 1883 | 148,300 | 1,900 | 14,170,000 | 22,500 |

THE ALLEGED CAPTURE OF A SALMON IN THE HUDSON.—Writing from Cold Spring Harbor, N. Y., August 9, 1884, Mr. Fred. Mather says: "Early in June I went with Mathew Kennedy, of Hudson, one of the State game protectors, to capture the illegal pound-nets near Rhinebeck, which were a great nuisance to the shad fishermen. Mr. Kennedy is a shad fisherman, in season and by lawful means, himself, and he told me that some time in May last he captured a salmon in his shad seine on 'Hudson Middle Ground.' The fish would weigh about three pounds. Mr. Kennedy inspected it and allowed it to go again. He has fished for over twenty years, and has seen salmon in the markets, and seems confident that his fish was a salmon."

*Effects observed by N. Simmons upon temperature produced by wrapping a cotton comforter about a round-shouldered fish-can.*

| Hour temperature observed. | Temperature of water in covered can. | Temperature of water in uncovered can. | Variation. |
|---|---|---|---|
| | ° | ° | ° |
| June 12, 1 p. m | 64 | 64 | 0 |
| June 12, 3 p. m | 63 | 66 | 3 |
| June 12, 5 p. m | 63 | 67 | 4 |
| June 12, 7 p. m | 61 | 66 | 5 |
| June 12, 9 p. m | 61 | 65 | 4 |
| June 12, 11 p. m | 60 | 64 | 4 |
| June 13, 1 a. m | 59½ | 63 | 3½ |

PRICE OF CARP.—Under date of August 15, 1884, Mr. N. L. Kabler, of Bedford Springs, Campbell County, Virginia, advertises in the Lynchburg News that he has 150,000 scale and mirror carp for sale, as follows:

| | |
|---|---|
| Those 2 to 3 inches long | $3 per hundred. |
| Those 3 to 5 inches long | 5 per hundred. |
| Those 10 to 12 inches long | 12 per dozen. |
| Those 12 to 18 inches long | 20 per dozen. |

In making this and similar announcements the U. S. Fish Commission passes no judgment upon the purity of the carp, as it is not informed upon the facts in the case.

*Trawling record of the U. S. steamer Fish Hawk, August 23, 1883.*

| No. of station. | Bearings. | | Time of day. | Temperature of water. | | Depth. | Character of bottom. | Direction of wind. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | Latitude north. | Longitude west. | | Surface. | Bottom. | | | | |
| | ° ′ | ° ′ | | ° | ° | *Fathoms.* | | | |
| 1156 | 40 13 | 70 29 | 6 a. m | 67 | 45 | 60 | Mud | South | Trawl was put over at 6 a. m., reaching bottom at 6.05, remaining down 30 minutes; 150 fathoms wire rope out. Specimens obtained: Phycis tenuis 1; Citharichchys, 2. |
| 1157 | 40 14 | 70 29 | 6.35 a. m | 70 | 45 | 62 | Soft mud | South | Trawl was put over at 6.35 a. m., reaching bottom at 6.40. Hove in trawl at 7.25; 150 fathoms rope out; surface 1023.4—70° F. Specimens obtained: Phycis, 8; Merlucius bilinearis, 1. |
| 1158 | 40 16 | 70 31 | 8 a. m | 67 | 45 | 62 | Soft green mud | South | Trawl was put over at 8 a. m., reaching bottom at 8.05. Hove in trawl at 8.50; 180 fathoms wire rope out. Specific gravities: surface 1023.5—67½° F.; 5 fathoms, 1023.5—66½°, 10 fathoms; 1023—67°. Species obtained, Phycis tenuis, many |
| 1159 | 40 20 | 70 33 | 10.15 a. m | 67½ | 44 | 55 | Soft mud | South, light | Trawl was put over at 10 15 a. m., reaching bottom at 10.20. Hove in at 10.50. Specific gravities: surface, 10236—67½° F.; 5 fathoms, 1023.8—67½° F.; 15 fathoms, 1023.8—67° F. Specimens obtained: Phycis, 8. |
| 1160 | 40 24 | 70 35 | 11.25 a. m | 70 | 43 | 41 | Black mud | South, light | Trawl was put over at 11.25 a. m., reaching bottom at 11.35. Hove in trawl at meridian; 100 fathoms wire rope out. Specific gravities: surface, 1023.6—70° F.; 5 fathoms, 1023.8—68° F.; 10 fathoms, 1023.9—67½° F. Specimens obtained: Phycis tenuis, Phycis chuss, Merlucius bilinearis, few; Glyptocephalus cynoglossus, 3; Paralichthys oblongus, few; Flounders, 2 specimens; Enchilyopus, 4. |
| 1161 | 40 28 | 70 37 | 12.45 p. m. | 69 | 44 | 45 | Black mud | South, 2 | Put over trawl at 12.45 p. m., reaching bottom at 12.50; 125 fathoms wire rope out. Specific gravities: surface, 1023.6—69° F.; 5 fathoms, 1023.8—68° F.; 10 fathoms, 1023.86—8° F. Specimens obtained: Phycis, 2; Flounders 2; species Lophius piscatorius, 2; Enchilyopus, 4; Merlucius, unknown species. |
| 1162 | 40 32 | 70 39 | 2.15 p. m. | 68 | 46½ | 45 | Black mud | Southwest, 2 | Trawl put over at 2.15 p. m., reaching bottom at 2.20; 125 fathoms wire rope out. Hove in trawl at 2 45. Time heaving in, 10′. Specific gravities: surface 1023.6—68° F.; 5 fathoms, 1023.8—66° F.; 10 fathoms, 1024—66° F. Specimens obtained: Paralichthys oblongus, 4; Flounders, 2 species, 5; Merlucius, 1; Phycis, few; Sculpin, 1; Enchelyopus, 2; Lophius, 2; unknown, 1. |
| 1163 | 40 35 | 70 41 | 3.25 p. m. | 71 | 46 | 31 | Sand and mud | Southwest, 2 | Trawl put over at 3.25 p. m. Time going down, 05′. Hove in trawl at 3.50. Time heaving in, 05′. Specific gravities: surface 1023.4—71° F.; 5 fathoms, 1023.2—70 F.; 10 fathoms, 1023.2—69.° Specimens obtained, Lophius, 1; Sculpin 1; Merlucius, few; Phycis, few, two species; Paralichthys, few; Flounders, 2 species. |

*Trawling record of the U. S. steamer Fish Hawk, August* 23, 1883—Continued.

| No. of station. | Bearings. | | Time of day. | Temperature of water. | | Depth. | Character of bottom. | Direction of wind. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | Latitude north. | Longitude west. | | Surface. | Bottom. | | | | |
| | ° ′ | ° ′ | | ° | ° | *Fathoms.* | | | |
| 1164 | 40 43 | 70 45 | 5 p. m..... | 70 | 44 | 31 | Mud ..... | Southwest, 2..... | Put over the trawl at 5 p. m. Time going down, 05′; 100 fathoms wire rope out. Hove in at 5.25. Time heaving in, 06′. Specific gravities 1023.6—70° F.; 5 fathoms, 1023.4—68° F.; 10 fathoms, 1023.4—68° F. Specimens obtained: Glyptocephalus, 2; Merlucius, 8; Phycis, 8; Sculpin, 1; Paralichthys, few; Flounders, few. |
| 1165 | 40 50 | 70 49 | 6.25 p. m.. | 68 | 45 | 32 | Gray sandy bottom | Southwest, 2..... | Put the trawl over at 6.25 p. m. Time going down, 05′; 100 fathoms wire rope out. Hove in the trawl at 6.55. Time of heaving in, 05′. Specific gravities: surface, 1023.4—68° F.; 5 fathoms, 1024.8—65° F.; 10 fathoms, 1025—58° F. |