III.—TESTIMONY IN REGARD TO THE PRESENT CONDITION OF THE FISHERIES, TAKEN IN 1871.

NEWPORT, RHODE ISLAND,
August 1, 1871.

The following reports were all made by a phonographic reporter, Mr. H. E. Rockwell, of Washington, and are intended to present the words of the witnesses, without alteration:

HENRY O. TIFFT:

There are very few fish indeed now, to what there used to be. They are growing scarcer every year; they are much scarcer this year than last, I think. I hear people who fish say that they cannot do anything to what they could once. One of them told me he had been out and fished a week, and did not catch a black-fish. The traps catch them up in the spring of the year. The tautog are a species that go up the Providence River to spawn; it is salt water all the way up. We used to catch scup and tautog, as many as we wanted, away up Providence River; but they don't catch scup now. I don't think they could go anywhere in Narragansett Bay and catch scup with a hook and line. I don't think they catch them much in the pounds.

Mr. MACY. If you were to take a vote of the people, I think it would be ten to one against the use of pounds. All the people say to me that the pounds are the cause of the diminution of the fish.

Mr. TIFFT. Most of the traps are in the river; none outside. They are in the East and West Bays, and all the way up on both shores nearly half-way up to Providence. There is a trap-seine at Point Judith now; there is a pound everywhere that they can drive stakes. There are three times as many pounds this year as last; it is a money-making business, and all want to go into it. They say the legislature has no power to stop them, and will keep on fishing if they are prosecuted. The fish strike at Point Judith before they do in West Bay. It seems as if they were coming from the south. Traps were put down first at Saughkonet. In the spring of the year you will see little spring-bass in the market, about six inches long, taken in these nets. The majority of them are small when they first come.

Mr. MACY. Sixteen or eighteen years ago there were five vessels went out from here, fishing for mackerel, but they sunk money in it and dropped the business.

Mr. TIFFT. There are some pounds on the south end of Providence Island, on both sides of the Canonicut, and through the east and west passages, up as far as Tiverton. Scup are out of the question. All kinds of fish are killed out, and the breeding broken up. I think, what the pound men call small scup, that they say they catch so plenty this year, are skip-jacks.* They look almost precisely alike when small. The skip-jack is a small species; never grows large; the only difference from the scup is, that the skip-jack has finer scales than the scup. The skip-jack grow about four or five inches long. They are caught about the wharves here; but no scup has a chance to spawn in our waters.

* This is a mistake; the fish in question are small scup.—S. F. B.

Mr. MACY. The squeteague are four times as plenty now as I have ever seen them before, and keep increasing. In 1830 we caught the first blue-fish in Nantucket; but in 1831 my uncle caught a barrel which he salted. They became plenty afterward, and continued so up to the year of the plague that killed off all the Indians but two children. They all disappeared that year.

Mr. J. J. CURRY, dealer in fish:

The Spanish mackerel are caught in this vicinity. They are more scarce this year than usual. The blue-fish run about as last year, but larger. I have kept a fish-market here six years. I do not think the blue-fish scarcer than they were six years ago. There was a time, six years ago, when in August, for three days, we could not get any. I do not know that there are any more traps used now than there were six years ago. We get all our fish for market here in this neighborhood, except halibut, round mackerel, and salmon; these come from Boston. Six years ago the price of Spanish mackerel was forty cents a pound; now they are worth a dollar a pound. Salmon are selling for fifty cents a pound. I buy my fish from the pound-men, paying about fifty-five cents a pound for Spanish mackerel. Last year we had four times as many Spanish mackerel as formerly. They were first caught here four years ago. We get eight cents a pound for blue-fish; never sell them for less than that. Flat-fish we can hardly give away in this market. We get eight cents a pound for weak-fish, (squeteague.) We do not sell many round mackerel; we cannot get more than ten or twelve cents a pound for them fresh, and, when salted, they sell for eighteen cents Scup bring five cents apiece on an average; not more than six or eight cents a pound. We get no scup scarcely.

SAMUEL ALBRO, dealer in fish:

We get forty cents a pound for sheep's-head; they are taken in the West Bay. We get five cents a pound for flat-fish, (flounders;) take anything we can get for them; they are not much used here. We get half a dollar a pound for salmon. There is one kind of flat-fish, that we call pucker-mouth, that is better than the other kind. For lobsters we get five cents a pound. I think blue-fish are more plenty than last year. Tautog are scarce. George Crabb* makes five dollars a day catching tautog with a hook and line the year round. He will average a hundred pounds a day. In the spring our market would not be as well supplied with fish if it were not for the pounds, because they can catch them in pounds before they will bite the hook. Down at Gooseberry Island they took in one pound as many as 10,000 barrels of small scup, so small that they did not want them; the net was so full that they could not haul it, and had to catch hold of the bottom of it and tip them out. They were spawned south. They never saw such a lot of young scup here before. It was from the 14th to the 18th of May that they caught so many young scup. The big ones came along about from the 1st to the 10th of May.

FRANCIS BRINLEY, esq., chairman of the Commission on fisheries of Rhode Island:

We had many meetings of the Commission in different parts of the State to make inquiries, and found the people generally ready to answer them, though some hesitated. As a general thing, the pound or trap men here would not attend the meetings, although invited through the notices in the newspapers. Mr. Stevens did not appear before the Com-

* See George Crabb's testimony, p. 30, to the contrary.

mission, nor did he respond to the interrogatories sent him. There has been a new development of this question since our last report was made. It is likely that the subject will come up next winter; it is largely a political question here. There was a bill prepared last spring in the senate, about which there is a good deal of feeling, as it varies from the bill which I prepared, in applying to the whole State of Rhode Island. Originally I took the ground that we would try the experiment of running the line in a particular manner. That was opposed because it was unequal, and it was said, "This is a partial line." Now they say to the pound-men, "You have had time to get out of this business and pull up your traps; and having been forewarned, we will now run the line the whole length of the waters of the State." It is possible there may be some resistance on account of want of jurisdiction, as gentlemen of the profession are generally willing to embark in such matters. In Connecticut they have passed a law prohibiting the catching of shad in pounds after this year.

Mr. LYMAN. In Connecticut they set their pounds to the west of Connecticut River; they do not catch enough east of it to make the business pay.

Mr. MACY. I know that a few years ago you could go out back of the fort and catch as many scup as you wanted; but I would like to see any one catch a scup there now. They said the people in Connecticut and Massachusetts are catching in nets, and why should we be cut off here? We catch shad very rarely here. Excepting very early in the season we get them from the East. About fifty-five or fifty-six years ago they caught shad plenty around Nantucket.

Mr. LYMAN. That was a sporadic run, about which there was something very curious.

Mr. BRINLEY. In the Providence Press, within two or three days, there has been a very strong article, in which the writer speaks of the great number of young scup which have been caught, even within the waters near the city, except where the water was charged with impurities, these young fish having got the advantage of the net fishermen by coming in two weeks earlier this year than usual.

Professor BAIRD. Does he mean to imply that these same young scup come in year by year?

Mr. BRINLEY. No; that they escaped the nets this year, in consequence of coming in two weeks earlier than usual. Young scup have been killed in Providence Bay by the impurity of the water.

General C. C. VAN ZANDT. I was chairman of a committee of the legislature on the subject of the shell-fish, and I found that the impurities had a great influence. We found oysters with a perceptible odor of coal-tar, that were taken five or six miles down the bay. This was some years since.

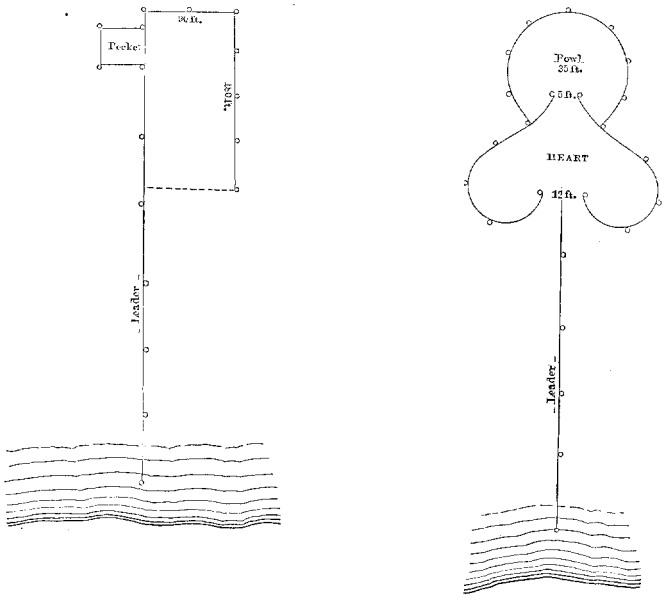
Mr. SAMUEL POWEL. The people who are interested in this question do not understand it at all as a whole. I think many facts are needed before we can act correctly in regard to it. To attempt to stop the trapping would not be useful in the end, as the traps gather great quantities of fish in a short time—more than the lines could do in a long time. The matter here is now fought off till next January. I am wedded to no theory; but there is a curious fact that the fish come this year, bringing their little ones with them.

NEWPORT, RHODE ISLAND, *August* 2, 1871.

J. M. K. SOUTHWICK:

I am not now a practical fisherman, although I have fished many years with traps and nets of different kinds. The question is one which excites considerable feeling. We have two styles of nets; what is called the trap, and the heart-seine or pound.

[These were illustrated by drawings in this manner:]



There is no bottom to the trap-net, and it must be watched all the time. Fish, when not excited, will remain in it some time, especially scup; but menhaden are apt to get out unless they are closely watched.

The first trap is set at Franklin Hollow, to catch the fish as they run south, on the eastern shore of the West Passage. It has a leader of something like a hundred fathoms. Traps have been tried on the west shore, but no fish are caught there in the spring.

There is a heart-seine in Mackerel Cove, which has a leader of about seventy-five fathoms. There are two set near Fort Adams. I set one five years at Pine-Tree Beach, having a leader of forty-five fathoms. The leader is generally set perpendicular to the shore. There is a heart-seine at Coddington's Cove. The rest are usually traps. I catch fish usually by the 10th of May. This year the fish came earlier, and probably could have been caught by the 1st of May. The fish were ten days later at Coddington's Cove than at Pine-Tree Cove. When the fish first come in the spring, we catch a few at first, and then a hundred or two, and then pretty soon several hundred barrels. The first run is generally larger than the later. The first run of scup that comes in, is generally of large scup, all large, weighing from two to three pounds. Then, perhaps a week afterward, the smaller scup, two-thirds the size of the others come in; and two weeks later they come that weigh from half to three-quarters of a pound. The last run are smaller, and many not worth saving, and many pass through the meshes of the net.

There is a phenomenon that has happened this year not commonly observed by fishermen before. The Saughkonet and all the other fishermen—I come in contact with all—report to me that they saw the small scup in vast quantities about the time they were taking up their nets; they described them as being from half an inch long up to three inches. That was about the 1st of June. Still later they were reported to be further up the bays; and in July Mr. Arnold, of West Greenwich, told me that the river up there seemed to be full of them.

From the middle to the last of May the heart-seines are put down at different points along higher up the bays; some of them may have been put in about the 1st of May, but they do not begin fishing much until a little later. I have a heart-seine now at Dutch Island Harbor, in the West Bay.

Flat-fish are caught about here in the winter.

Captain Calhoun stated to me that he saw the first scup caught here, which was placed on exhibition at the United States Hotel. There is a tradition that they first occurred here about 1793, and the sheep's-head disappeared here about that time. There have been more sheep's-head caught here this season than I have ever known. I have seen a dozen in the market at once.

Scup have been much more abundant this year than at any time during the last five or six years; still, not so plenty as at some former periods.

The blue-fish have not shown themselves very plenty yet this year; they have been rather scarce. There have not been so many as last year, up to the present time.

I think the squeteague have been as plenty as ever before; they have been very plenty indeed.

About the time that the blue-fish come, the scup disappear.

There is no doubt but that the great majority of the fish are destroyed while in their spawn or small fry.

In May the spawn of the scup is found in different degrees of development; while some are quite ready to spawn, others have it developed but little. Some have no spawn in them. I saw six cleaned in the month of May, of which only one had spawn; there might have been the same number taken, and every one had spawn in it.

We catch in our traps and pounds the scup in largest quantity; next come the sea-bass; then, squeteague; then, blue-fish; and then the flat-fish, called the brail, the pucker-mouth, and the flounder; then, tautog.

The great bulk of the fish caught in the pounds goes to New York.

I have known scup sold as low as fifty cents a barrel, five or six years ago. They sometimes sell fish for just what they can get, because they cannot be kept long enough to get them to market. Sea-bass bring about the same price as scup generally—about five cents a pound. Squeteague bring four cents; blue-fish, five cents; flat-fish, from two to three cents—many have been sold for two cents each. Very few fish are salted here, except the herring.

Menhaden are second to scup in number of pounds caught; they are used for oil and bait. One gang caught 1,500 barrels of menhaden last week. There are three or four oil-works on this island. This season is reported to be the best for many years for menhaden. For bait they are sold for a dollar a barrel, and sometimes a dollar and a half. When sold for manure, they bring about thirty cents a barrel. The purse-nets supply the oil-works generally with menhaden.

JOHN D. SWAN:

I have been fishing about forty-eight years, with hook and line; have never used traps or seines of any kind—nothing more than a gill-net for herring for bait. I have fished about Brenton's Reef, mostly for black-fish, (tautog.) I think tautog is about as plenty this year as last; but not so plenty as five years ago. Eighteen or twenty years ago, in two hours I could get as many as I wanted. Then we got four or five cents a pound at retail; now we get eight cents. If we get fifty pounds a day now, and work hard, we do a pretty good business. I sell to families; dealers give only about five cents a pound.

I have not seen a scup this season in the water. We used to catch them when fishing for tautog. I have not seen the run of young scup that there is so much said about; I have not seen young scup this year in greater quantity than usual.

We did not formerly catch scup with the hook until ten days after they were seen. They used to run so thick that they would crowd one another up out of water. There was one place where they run over a point where the water was nine feet deep, and they were so thick as to be crowded out of water. I went there this spring in the month of May, and did not see a scup there.

Mr. SOUTHWICK. It was reported that scup have been seen there.

Mr. SWAN. Scup have been dwindling off ever since the traps appeared, and I attribute the diminution to the traps.

Mr. SOUTHWICK. I think it is due to some increase of enemies. I think all fish, if left alone, would multiply at certain periods and become very numerous, until their particular enemies increased and destroyed their spawn. We know that all spawn has enemies. I do not think there has been so much decrease as is asserted; I think it has been principally in the bays and not in the waters generally. They are scarce in the bay from over-fishing by the great number of fishermen around the shores. In fishing for bass, they will play with the bass they hook until he drives all the other fish away. I think that has an effect on the bass. The scup, I think, are affected by the impurities of the water in coming up the bay. The appearance of the blue-fish and the impurities of the waters from the manufactories keep out the scup.

Mr. SWAN. I have not caught a blue-fish this year except when fishing for bass; they are not plenty enough to be worth fishing for.

Mr. SOUTHWICK. My observation shows that the blue-fish have been less than last year. They struck in very scattering.

Question. When were scup first seen this season?

Mr. SOUTHWICK. Somewhere about the third of May, at Pine-Tree Cove. Frequently we do not see them, though they are in the water. They swim slowly and almost always with the tide. I think they drift backward and forward with the tide; unless frightened, they never go against the tide.

Mr. OBED KING. There is not three days difference between Watch Hill and Gay Head. This season they caught scup at Gay Head first.

Mr. SOUTHWICK. I used to think it was safe not to put in my net at Pine-Tree Cove till I heard of the fish being caught down near the light-boat, off the mouth of the harbor. That was so well established as being safe to act upon, that I should not hesitate now to act upon it. For three years, I think, the 10th, 11th, and 12th of May were first days on which scup were caught. This year they seined them about the 3d of May. Sea-bass were more plenty at Saughkonet this year than last.

Mr. SWAN. I have not found them so plenty.

Mr. SOUTHWICK. I fished at Pine-Tree Cove five years, and for the

first four years I did not exceed four or five hundred pounds a month. This year I got at some single hauls more than during the whole former season. Last year I got as many as twelve or fifteen hundred-weight. I do not know the cause of the diminution of the scup, but I think they may have diminished from the same cause that many other fish have that were never caught in our traps, such as the bull's-eye; the old fishermen say they used to catch them in large quantities.

Mr. SWAN. They used to be here every season. They disappeared twenty-five years ago. There is not one to ten striped bass that there used to be. They catch the small ones by hundreds, in the traps, early in the season.

Mr. SOUTHWICK. We take up the traps after May, and do not put them down again at all. The heart-seines are kept down through the season, because the heart-seines do not need watching, and you can go and get the fish out at any time, the fish remaining in them. The traps are best when the fish come in large bodies. We catch menhaden in the traps sometimes, but we have to work very quick. The heart-seines are supposed to catch all the time.

Mr. KING. Nine out of ten of the fish have spawn in them in the spring; they are slow and lie around, and will not run out of a square trap. Gill-nets are used around here too; they catch blue-fish in them outside, but they are much more scarce than formerly. They say scup are blind when they first come, but it is not so; they move slow because they are full of spawn. Large bass are caught here in the winter, in deep water, with clam-bait, but they are slow in biting. In one winter they were thrown up in great numbers on Block Island, frozen to death. The pucker-mouth is caught in winter in shallow water; the other flat fish go into deeper water.

Mr. SWAN. I caught a Spanish mackerel about twenty years ago. We should not get many now were it not for the traps.

Mr. SOUTHWICK. They are caught only in the heart-seines, because the square traps are taken up before they come in.

Mr. SWAN. I can remember when the blue-fish first came in; they did not catch them when I was a boy. It must have been forty years ago when, at one time that I had been fishing for tautog, I trolled for blue-fish, and got several that day. Twenty years ago we could catch scup in any quantity, but since the traps came in they dwindled off.

Mr. SOUTHWICK. Nobody disputes the fact that scup have of late years been less plenty than formerly. They showed themselves quite plenty last year. Near Bristol Ferry they caught them in plenty.

Mr. KING. There were not so many barrels shipped to New York this year as last.

Mr. SOUTHWICK. That is no criterion. The great bulk of the fish are sent directly to New York from the traps in vessels.

Mr. KING. There have not been half so many vessels on the river as last season. I have not caught three scup in three years.

Mr. SOUTHWICK. The pounds about Point Judith have taken more than in any year for three years; that is the general information. There is one trap, near the Spouting Rock at Watch Hill, which has been more successful in getting scup this year than for a number of years.

WILLIAM DENNIS, Esq.:

Question. Have you paid any attention to the political economy of this fishing question?

Answer. I am a Newporter, and am here every year for about two

months, and I fish all the while with a line. I have fished regularly since 1828, and know something about it. Compared with the fishing twenty years ago, under the same conditions, the number of tautog caught now would not be more than one-eighth as many. There are no scup now; I have not caught one this year. I have been fishing two weeks, and fishing where scup ought to be very abundant; I have not caught one or seen one. I consider them nearer gone than the Indians. Twenty years ago I used to go outside for my fishing mostly, and my car would hold from one hundred to one hundred and fifty pounds. In the ordinary condition of weather I would fill it and be home by nine o'clock in the morning; and when I left off fishing, having caught as many as I wanted, I could have caught as many more if I wished. I think that now, fishing the same time, under the same circumstances, on the same ground, if I saved all that I could, and exhausted my ability, and got twenty-five pounds of all kinds of fish, I should do well. I fished for nothing except tautog. I first began to appreciate a difference within ten or twelve years—a very sensible difference. I never saw any difference until traps were set. I know that, after the traps had been in successful operation a short time, there was a clear diminution of the fish, the same that there always is in countries where birds are trapped. You cannot shoot up the game—neither woodcock nor pinnated grouse; and you cannot exterminate the fish with the hook and line. Consequently there was no diminution until the traps were set here. Of course the fish are diminishing all the while. I don't believe that to-morrow morning you can take a box of crabs, and go out and catch a hundred pounds a day for a week. We don't know what they take in traps. They say they never get any, although other people have seen them carried off by the cartload. They take everything from a shark down to a large chogset. The very moment you sink your trap to the bottom, you are sure to take shark as any other fish. Those who fish for striped bass tell me they are very scarce. I have been here two weeks, and have caught a few fine tautog, but I have caught them all in the river; and of course that is no way to determine whether there are any fish, because if there were one or two hundred fish here at this time, they would be sea-fish that came into the river. I remember very well when the blue-fish came here.

Mr. SWAN. The blue-fish were small when they first came here, not weighing over a pound and a half. The biggest I ever caught weighed fourteen pounds. I think I have seen one weighing eighteen pounds.

Mr. DENNIS. I have my own theory about squeteague. I was fishing, six or seven years ago, off Point Judith, when I hooked the first squeteague I ever caught here. I then took twelve large fish, weighing seven or eight pounds. I take it they require a peculiar kind of bait, which is becoming more abundant than it has been. There is only one fish here that maintains its numerical integrity; that is the chogset.

Mr. SOUTHWICK. Nothing but menhaden are used for manure. In the five years that I fished I never sold any to be put on land, except about two barrels of waste fish. I have sold, perhaps, in that time, seventy-five barrels of menhaden.

Mr. SWAN. We find the tautog two or three miles from land in winter, and the chogset stow away in deep water. Lobsters are pretty scarce now. Last year I averaged forty a day in my pots; this year not more than twenty-five or thirty. They sometimes burrow themselves up in the sand.

Captain SHERMAN fully indorsed the statement of Mr. Dennis. He had been fishing with him a great deal. There has been a general de-

preciation of the fish since the traps have been set. The bays are so blocked up with nets that the fish cannot come in. It will not admit of an argument. I can think of nothing else than the traps as the cause of the diminution.

Mr. SOUTHWICK. If traps are the sole cause of the diminution of the scup, what could have been the cause of the diminution of the bull's-eye, sea-bass, blue-fish, and squeteague, all of which have disappeared almost wholly in this century, and again returned, with the exception of the bull's eye? I am told the sea-bass disappeared about thirty years ago, and then came on again.

Mr. SWAN. I never knew them to disappear. About fifteen years ago, one 4th of July, I trolled for blue-fish while going out to my lobster-pots, and I got a striped bass that weighed thirty pounds. After I had hauled my pots, I caught two more, one weighing nineteen and the other twenty-one pounds. On the 8th of July I went again, and, after hauling my pots, I cut up a little lobster and fixed my bait, and when I threw my line it got snarled, and in trying to twitch out the snarl, I caught a fish; and that day I got eight that weighed in the aggregate two hundred and seventy-six pounds after they were cleaned. I do not think the steamboats have any influence in diminishing the fish. A steamer coming within fifty yards of a fishing-place would not drive away the fish. In former times, a common impression among the fishermen was that if the heads and gills of the fish used for bait were thrown into the water, it would scare away the fish, but I always throw them overboard.

I have no idea how old scup are when they spawn. I think scup as large as a man's hand will have spawn in them. We generally save the spawn of the large scup to eat. Scup move with the tide; other fish we do not see so much, as they keep near the bottom; the scup are seen when they go over shallow places.

I don't think I ever saw scup in blue-fish; I have found little mackerel and shiners something like a herring, and menhaden. Blue-fish throw out all that is in their stomach when caught.

Before traps were put in we could see the tautog in the water about the rock, and under the edges of the stones in a warm day. Some say you cannot catch tautog in a thunder-storm. That is "all in your eye." I caught more fish in one thunder-squall than I had caught all day in another place. When tautog are plenty, the best bait for them is the crab; but I always fish with lobsters. They eat the muscles off the rocks. I have seen some of the rocks covered with muscles at one time, and then the star-fish would come and eat them all off.

I think there are more hand-line fishermen than there were fifty years ago. The business has rather increased during the last twenty years.

Bonito were never plenty about here. I never caught more than one in a day and not a great many in all.

I have never seen any fish that appeared sickly except the cod-fish; that is sometimes what we call loagy. I think those have the consumption. Menhaden are very bad bait for lobsters. If there is any in their paunch when boiled, the oil comes right through the meat. Any strong fish affect lobsters in the same way. The bull's-eye fish was poisonous if kept long. It was a kind of chub-mackerel.

Twenty-five years ago, I think, I caught 165 blue-fish in one day and three bass, trolling. That is the most I ever caught in one day.

NEWPORT, RHODE ISLAND,
August 2, 1871—*Afternoon.*

LIEUTENANT GOVERNOR PARDON W. STEVENS:

I have only one pound; I do not trap at all. We thought we could do better in buying fish. The trap is a Rhode Island institution entirely; they are set only about three weeks. Previous to last year they commenced trapping about the 20th of April, but this year not till the 1st of May. The trap is like an oblong box, with one end knocked out. But in a heart-seine we can hold the fish we catch. A brother of my partner got a bass in his pound that weighed fifty-two pounds. The leader of the trap must be long enough to get to a sufficient depth of water. Over on the Saughkonet side the leaders are two hundred fathoms. The leaders run from east to west, with the mouth of the trap to the north; and where they set several traps, the leader of one runs a little by that of another. The fishers there measure off the water and draw for it. There is a sort of agreement among the trappers that the leaders shall be two hundred fathoms. There is one place where they allow them longer. On the southeast corner of the State they allow them to go out five hundred fathoms, so as to get square with the one at Saughkonet Point.

We set the mouth of the trap up stream because, as the tide runs north, the trap must be right across the tide; the open part to the northwest, and the leader on the south side. The mouth is in some instances leaded and goes to the bottom. I never worked a trap at Saughkonet; what I know about the fishing there I learn when I go there to buy fish. I never worked a trap except down in this bay.

I think the fish are bound eastward. I always took the ground that if the fish were bound to the river the traps would not hinder them. I think the heart-seine is much more injurious than the trap, if either. There are many days when a man cannot attend to his trap. It requires almost as much attention to fish with a trap as in the hauling of a seine. Half a gang attend half a day and the other half the rest. It usually requires six men to haul up the gate to a trap. I attend one with one man.

I had a heart-seine at Sachuest Point, thinking that if the fish went up the river there I would try and get some. The leader runs from the shore sixty-five or seventy fathoms. We attended that diligently, and all the scup we got was two. We got perhaps half a dozen tautog, a few dozen codfish, and a few barrels of herring. We set to catch Spanish mackerel or anything that would run in in the summer. I was satisfied that no fish went above, but they went across. I know the fishermen do not go more than two and a half miles north of Saughkonet Point; but we were two miles above them.

As a general rule, we have to set our traps on the east side of the channel for the first run of scup. I do not know so much about the second run, because small scup stay here all summer. When you take up a school of these, they are almost a calico-color; the first run are almost white. I never saw any with regular bars on them. Some that are called the third run of scup are caught up at the head of the bay. I cannot tell whether the large scup have ever been caught up at the head of the bay, because I never fished there. My idea is that the fish come in east of Block Island and strike first at Watch Hill and Point Judith. I don't know how far into the Sound they go; but they catch them first at Watch Hill. I think the big scup do not go up the West River. I have seen them running across Brenton's Reef on their way

eastward. Some say they are blind at first, but I never saw any that were so; I never saw any that did not move pretty fair. They move faster in warm weather than when it is cooler. Recently they have got the first scup at Watch Hill; but there used to be a trap west of Beaver Tail light, which picked them up first. Now they have rigged it as a pound.

There would not be more than a day's difference between the times of catching at Fort Adams and Saughkonet. They caught scup in Vineyard Sound this year two days before we did. On the 20th of April we caught thirteen barrels. We caught some on the 18th of April; that was sixteen days earlier than last year. Some of the run got by and went down to the Vineyard Sound.

Scup are more scarce than they used to be.

There were two cold seasons a few years ago, and a great many tautog were frozen, and it was a number of seasons before we could get many to supply the market here. I have heard that they are more plenty this year. When they froze, they were thrown up on the Nantucket shore, and they were cut out of the ice and sent to New York. That was in 1856–'57.

That could not have affected the scup, because they do not stay around here. The chogset were affected in our harbor.

Question. What do you suppose has affected the abundance of the bass?

Answer. They are much scarcer than they were formerly. I do not know what has cleaned them out. I suppose that catching some in the spring of the year may affect them somewhat.

No fish are used for manure except menhaden. I was ready to give two dollars a barrel for scup, and they were not worth that for manure. That was the lowest price this year. The highest price was five dollars at the traps. We get in New York just what the commission merchants are a mind to pay us. Sometimes we do pretty well, and sometimes not. The scup are packed in bulk in ice, and sent to New York or Philadelphia. A common sloop-smack from New London carries about 100 barrels.

Question. Supposing that it is decided to try any experiments with traps, in the way of legislation, is there any compromise that can be made between no traps at all or all that people choose to put down; would it be expedient to attempt any limitation of the length of the leader, the size of mesh, and time of keeping them down?

Answer. I judge that a limitation of time would be best.

Question. What would be best, so many weeks or so many days in a month?

Answer. I should say, so many days. They run about a month, and then the fishing in traps is all over—from the 20th of April to the 20th of May.

Question. Suppose it should be said that no fish should be taken from noon on Saturday to noon on Monday; would that be acceptable?

Answer. It ought to be; and it ought to be made acceptable. Now, although half the men go home Saturday noon, the rest will make up a gang and fish Sunday, and find a fellow with a smack, to whom they will sell their catch, and then divide what they get, and thus make the share of each greater than that of the rest of the gang.

Question. How could you treat a trap or pound so that they could not catch any fish?

Answer. Have it hauled up. We haul our pound up with a long line, leaving the bottom up about two fathoms.

Question. What would you suggest as the proper way of securing general obedience to such a law?

Answer. Hold the captains of the gangs responsible; either confiscate their property or make a heavy penalty.

I have had a long controversy with Tallman about menhaden spawning twice a year. Every fisherman says menhaden come along full of spawn in the spring, and go back in fall full of spawn.

Question. Do you find small scup to any extent in the blue-fish that are taken in any way excepting in traps?

Answer. It is very seldom we catch them in any other way except with the gill-net. I have found blue-fish with young scup in them; when taken in gill-nets, we almost always find scup in them. Blue-fish caught with a drail often vomit up the food in them. Sometimes three-fourths of the food would be young scup. I have shaken them out of them within a week. Squeteague and blue-fish do that; they will eat anything that runs free. To-day I picked up one, and just took and pressed on the belly of the fish, and he was full of them. The pound is full of these small fish, and they get the little fish in the pound. I have seen the little striped smelt in them, packed in them, and looking like a row of pencils. Sometimes they will come ashore with a lot of scup in them; and then again they will have nothing but hake and sea-robins. They will bite these off close up to the fin; and then they will come ashore with mackerel. I have seen them with small flat-fish in them. I don't know as I ever found a crab in a blue-fish. I have always taken particular pains to know what the blue-fish feed on. Until this became so extensive a watering-place, I have shipped four thousand pounds of black-fish to New York in a year. I have shipped a thousand to fifteen hundred sugar-boxes—bought them and sold them. But then the competition became so great that I could not afford to buy them. What were wanted here were sold readily, and the balance were sent off. The retail dealers here buy fish wherever they can get them. Two buy to send to New York, in connection with what they sell here.

We caught from one thousand to fifteen hundred pounds last week. We found them accidentally out in Saughkonet River. They come up from the bottom every night. We catch blue-fish in gill-nets more than in the pounds. They destroy the nets very badly.

I do not know as blue-fish are more plenty than last year; there have been days when they cannot catch any. We are catching now full as many as we did last year. We get the fish at night; we catch the fish below the middle of the net then; but when the fish are playing on the top, we get them near the top of the net. We have our nets with a mesh two and one-half inches to four and one-half; they are from fifty to ninety fathoms long. They are made by Mr. Stowe, of Boston.

My partner's brother went down the other day and caught twenty-eight bass. If there comes a heavy sea, on the fall of the sea they can get large bass, plenty of them. My partner's brother went down and caught eight or nine hundred-weight, and Mr. Perry Cole and Mr. Durkee get a great many.

Question. Are eels scarcer than they used to be?

Answer. I think so. Whether the gas-works have affected them or not I do not know. Six or seven years ago I was a member of the legislature, and I went out one morning and found a man on the steps opening a basket of oysters, and I could smell the coal-tar in them very plainly. Fourteen or fifteen years ago I kept a fish-market on Long Wharf, and you could see the tarry substance rise on the water and spread out while going through the bridge. We have had a thousand

pounds of fish killed by it in one night. Scup will not go up Providence River; it is nothing but a mud-hole. It is only in the pounds that we get the little scup. When fish were running here, we caught a great many young scup from two to five inches long. I never knew anything like it before; none of us ever saw it before. If it had occurred it would have been observed. Menhaden have been more plenty this year than for many years before. I heard a regular fisherman say he never knew such July fishing as there has been this year in the West River. Menhaden are caught in the pounds in the spring of the year. Forty to fifty barrels of menhaden would be a large yield. But the purse-nets take as many as they can hold, and sometimes they lose their nets; they cannot gather up the fish soon enough, and they would die and sink; and they would have to cut open the seine.

We get mackerel here in this harbor; they are poor in the spring, and have spawn in them. In August they have no spawn in them. We do not catch any fish much when they are full of spawn, neither black-fish nor scup, nor the first run of mackerel. Here are ninety to one hundred sail of mackerel-catchers lying off here, and they take the fattest mackerel I have ever seen. Last year was the first time they have ever done it. Mackerel promise to be plenty this year. There is no sale for the spring-catch; they are poor mackerel.

Question. If we had three times as many scup as we now have, could we buy them for any less money?

Answer. If the fish were not exported from Rhode Island, they would not be worth a cent a pound.

Question. Why has the wholesale price been less this year than before?

Answer. It is because of the increase of pounds in Vineyard Sound, and they all send fish to New York. Squeteague run from three to ten pounds. Large ones began to come here five or six years ago. They are much larger now than they used to be. They were here once before, and went off more than forty years ago, and they have not been plenty since until within a few years.

When the blue-fish first came back, the people would not eat them; there was no sale for them; people said they would make a sore on those that eat them. The prejudice against them was so great that you could not sell one in market.

In 1854 I used to catch the bull's-eye. They were here for a considerable time after that, and had been off and on before that. They were not a regular fish.

There is only one pound at Saughkonet River. I have the only one there. There was one set up in Coddington's Cove by a man by the name of Clarke. He got a great many Spanish mackerel, and that set us after them. The right to fish is as perfect as any right we have here in Rhode Island. The right to the fisheries and the right to the shore are all the same. All the people have a right to go on the shore, being only liable for any damage. There is a path clear round from the bathing-houses to the boat-house here. The right is universally recognized in Rhode Island.

NEWPORT, RHODE ISLAND,
August 3, 1871.

NATHANIEL SMITH:

I am seventy-three years old. I have fished forty-six years. There were scarcely any fish when I left the business, three years ago, on

account of my health. Fish used to be very plenty, so that any one could get as many as he wanted; they were plenty until the trapping was commenced. That was about 1828 or 1830. But I fished before they had any trapping or purse-seines. One man could catch scup enough forty years ago to load a boat in a short time. I have seen the water all full of them under my boat. Every one could catch as many sea-bass or tautog as he wanted. The blue-fish came around in 1834, I think. I caught the first blue-fish, which was about a foot long. Every year they became more and more plenty; but still they did not make any difference with the other fish. It never made any odds with the tautog nor bass-fishing, because I have caught the bass right among them. I had a bass once with a scup in his throat, choked with it. I don't think blue-fish trouble scup at all. I never saw scup spawning; but think they spawn up the river, close in shore. I never fished for scup much, but they were plenty, and there was no difficulty in catching them until they began trapping them up. It was just so with tautog. I got up the first petition against trapping tautog, and got seventy to one hundred signers, and Sam Brown got one hundred. It was handed to our legislature, and laid on the table, and I suppose thrown under the table or turned out doors. The tautog began to grow scarce twenty years ago. They set traps up over Saughkonet shore at the time I got up the petition. I think, if traps could be stopped, we should have fish plenty in the course of three or four years. The spawn is taken up with the fish going in to spawn in the spring of the year; there is no seed left in the water for fish to grow from. Thousands and thousands of hundredweight of tautog have been sent to New York, besides hundreds of boxes of scup. I have seen them take thousands of pounds of tautog off Gooseberry Island in a morning and send them to New York. But now they cannot get them around the shores.

The blue-fish were in these waters before, and very large. My father used to catch them about the year 1800, not far from that. I think, from what was said when I caught the first one, they must have been out of the water sixteen or eighteen years. About 1800 they were very plenty. They first made a net of rattan to trap them, and then they all went away in a body, and till the little ones came back they did not return again. I used to catch the little ones and bring them to market; but nobody would buy them, and so I threw them away. The first man who brought blue-fish to our market was Mr. John Springer, and he first brought them when they came back the last time.

Scup were always here; were here when my father was a boy.

When I first began to catch blue-fish, they did not weigh more than a pound or two apiece; but when they were here before, my father said they weighed sixteen and eighteen pounds.

They first began to set traps on the eastern shore about 1827; they used to set them just the same as now; they would drive the fish into the pockets at the ends.

There are no school-bass here in the fall of the year. In old times, thirty or forty years ago, the bass were around in schools in September, and would run until cold weather. I have caught them as late as the 10th of December. I would get from one to two hundred a day. I used mackerel or menhaden for bait. I used dead bait, but of late years I fished with lobster bait. That would not answer only when there was a heavy sea and the water was thick; I used to catch a boat-load in a day in that way. I got sixteen one morning, four of which weighed 206 pounds, and the rest would weigh from thirty to forty

pounds apiece. Four or five years ago I could not catch any. The sea-bass are very scarce now.

Mackerel used to be caught here all the year round, but they are scarce now.

The skip-jack is something like the bonito: the bonito has a darker and broader stripe than the skip-jack. The bonito is striped like an albicore.

I don't know but one kind of sword-fish here. I know the bill-fish; they are a long fish, with a bill something like that of a sword-fish. I have seen a bill-fish three feet long. They are not at all like the sword-fish. They have little fins like the mackerel. They followed some ship in here; they were here in the fall of the year and latter part of the summer, only one year. That was forty years ago; I have seen none since. The docks were all full of them then, about eight or ten inches long and very black. They would bite anything you might put down, even a bit of pork.

The bull's-eye fish were here from 1812 to 1830, perhaps; they were very plenty. The women would haul them in with seines—barrels of them; once in a while two or three are caught in the fall of the year; they were nearly a foot long, very thick and fat. One year they poisoned every one who eat them; people thought they had been feeding on some copper-bank; they were much fatter than common mackerel. I salted a barrel, and carried them out to Havana. They were never sent from here to a market abroad. They were so fat they would rust too quick, like the Boston Bay mackerel. Split them and they would fall apart, they were so fat.

Menhaden are decreasing too. In 1819 I saw a school of menhaden out at sea, when I was going to Portland, that was two miles wide and forty miles long. I sailed through them. We were out of sight of land. They appeared to be all heading southwest. There were no fish near them. I have seen a school on this coast three miles long. I think they spawn in April or May.

They catch a few shad in the traps here now; they never used to do that. They get plenty of herring in the spring. Herring are bigger than alewives; they come along together and spawn together; they spawn in April and May; they are used only for bait. People never pretend to smoke them. There are many different kinds of herring.

NEWPORT, *August* 3, 1871.

W. E. WHALLEY, of Narragansett Pier:

I am using a trap-seine. We work on the tide, and we don't care on which side of the seine it is. We catch all kinds of fish that wear scales, and some that don't—big fish and eels. We catch sturgeon, from seven pounds up to three or four hundred. I do not know how many heart-seines are being worked this season. The heart-seines take the fish both ways; the trap, only one way. They are of various sizes, according to the locality, the leaders being from seventy-five to two hundred fathoms. The trap-seine is calculated to take fish working down an eddy; the heart-seine, where the tide works both ways. They are at Horse Neck, and all along where the tide sets both ways. Taking fish in traps depends on the eddies; the better the eddy the better the chance for fishing. When the tide sets up into the bayous, there is an eddy when it runs back, and the fish run in. We fish every half-hour,

and get from a few barrels to five hundred, and when the tide is over we wait; we fish only when the tide is running in; we do not expect to get as many on the ebb-tide as on the flood, except in some places. At Gooseberry Island we fish on the ebb-tide. At Sachuest Point we have fished two seasons, and I have fished at Point Judith on the flood-tide. There is a westward tendency there at the ebb-tide. On the strong ebb, these fish coming across the Sound strike through there. At Gooseberry Island I wanted a flood-tide, and that brings an eddy inside, making a bay for a mile or a mile and a half.

On Saughkonet River there is not much tide, only when it blows fresh to the north or south. There are two bridges there, and we always thought we did best at them on flood-tide. We never set any nets on the west side. When I went there in 1857, there were eleven traps; next year, fifteen; and the next, seventeen. The traps were first started in 1846, by Ben. Tallman. He invented the trap.

Question. What do you think about the general question of traps; do they affect the quantity of fish or not?

Answer. Yes, sir; I think, if they were stopped, the fish would be much more plenty.

I will give my reasons why I have answered "yes." I do not mean to say that traps should not be used on our coast. I do not mean to say they should be abolished, but I do mean to say that, in the way they are handled, and used, and allowed to be set anywhere, without regard to water, place, &c., they are an injury to the fisheries, and are what is killing off and curtailing the luxuries that the Creator has furnished, and intended should be enjoyed. My ideas are derived from nine years' experience in trapping and seining, and I have heard the other fishermen say the same thing. I am a fisherman, and expect to fish as long as I do anything.

In the first place, our bays are large in proportion to the size of our State, and the school-fish have not a place where they can go and stop wagging their tails long enough to lay their spawn, while the oysters are protected. Here is a trap and there is a purse-net, so that from the time they come in until they go out somebody is after them.

And, what is worse than all, our own State's people cannot get them at all. They will bring them in and sell them to carry away for a quarter of a cent a pound, in the month of May; and now to-day you cannot buy them for ten cents a pound. Why? Because they have been taken here for twenty years, before the spawning-time, and sent out of existence for nothing. If you kill a bird before it lays its eggs, where is your increase? And so, if you kill your sheep, where is your stock? Can we raise anything if we don't try to keep our breeding-stock good? Is it expected that we can have fish if we will put them on the land for manure at a quarter of a cent a pound? And now you cannot buy them for ten cents a pound. Confute it if you can.

When I could go out here and catch from three to five hundred-weight of black-fish in a day, I have been told not to deliver them, and when I brought them in, to cover them up with scup, and then carry them away and throw them in the river after dark, and not sell them in Newport. Why? So that the inhabitants would not know where they came from. I have done it. They are selling fish from off Point Judith, and sending them to New York.

But they have thrown striped bass into the dung-heap, because they could not get ten cents a pound; deacons of churches did that. Now you cannot get them at all. I used to get enough Saturday afternoon to last my family a week; go now, and you don't get a nibble. Give us

some protection, and, by-and-by, we may have a place that the fish can go to and lay their spawn, and where the young fish can grow.

Black-fish (tautog) we cannot get. Yesterday we had five men fishing, and 27 pounds, 22 pounds, and 19 pounds each was the best they could do. If it was not for lobsters, our fishermen could not get enough for their breakfasts.

We take striped bass in nets, at the mouth of Saughkonet River, and at the back beaches. The fish run eastward in the spring, the same as the geese go north. But black-fish and bass can be caught here all the year. I fish inside of the point in winter, and outside in summer. We get bass through the ice, in winter; sometimes a barrel of them. They go into the mud in eighty feet of water. The bass and tautog are a native fish; the blue-fish is a traveler, here to-day and gone to morrow. I don't care anything about them.

Shad are a fish that will run up the rivers annually if not hindered. I have caught shad at Gooseberry Island, seven hundred a day, with a trap-seine. That is no rig for catching shad; but if you go to work and prepare for it, you can catch shad plenty.

In regard to tautog, bass, and scup, we cannot make a living fishing for them, as we used to do. Many a man has been driven out of the business. I could show you a dozen good boats rotting down, all gone to destruction; and the fishermen have taken to something else, which they had no love for. It drives people away from the State. We had about three hundred fishermen here twelve years ago, who got their living directly from fishing. That was their legitimate business, with the drag-seine and hook; not with the purse-seine or trap. They did not know anything about a trap till I set it. Two have been set there since.

The men have left here and gone down off the Banks; gone to New London to go on board fishing-smacks; gone to the eastward and to the southward. It is depopulating our shores of the men of that class. There are now only about fifty men fishing where we had three hundred; and some of the old men remain, but all the young men have gone, the fishing has been so killed out within the last five years. Instead of fishing, those who remain have, many of them, gone to taking boarders. Unfortunately I got broke down, and did not earn my salt; but I have followed the fishing business and have kept boarders. People come here from abroad in the summer, for what? Because Rhode Island has been noted for hook-fishing. Dr. Babcock comes with his rod and reel for striped bass. This year he has caught one; that is all. Last year he caught two. Many others have tried it, with no better luck. They come here for fish; they don't care anything about our stale meats, for which I pay thirty cents a pound, that are brought from Cattaraugus County, New York. That is the change we have made; we send fish out at a cent and a quarter a pound, and they send us beef at thirty cents a pound. Five hundred thousand dollars have been paid out to build up Narragansett Pier, for the purpose of a fishing-place. It is a good, quiet neck, where they can go fishing, having a beach equal to any; and you may see a man with his whole family, each of them having a rod trying to catch some fish. They catch anything they can, and carry it home to have it cooked; and because they cannot get what they used to, they give us the name of having depreciated the fish.

The tautog and striped bass have diminished most; that is, we feel their loss most.

Question. Supposing you were in the legislature, and wished to draw up such a blll as would be fair and just to all parties, what would you do so as to control the traps as to number, size, place, and time?

Answer. My proposition to the legislature was, to allow only a certain number of nets from Point Judith to Saughkonet River, so as to allow the fish to come in.

Question. Suppose the pounds were down from the 1st of June through the summer, and only then, what would be the effect?

Answer. I should say they should not be set before the 15th of June. From the 15th of May up to the middle of June I have caught tautog and scup that were full of spawn, and were ready to shoot spawn at the touch, and when they were taken into the boat they would throw their spawn; you could almost see the fish in the egg. The fish are later in a cold, backward season.

Question. What would be the effect of this plan: To require the fishermen to take up the pounds two days in seven, say from 12 o'clock Saturday till Monday, and have a proper penalty for violation of the law?

Answer. It would have the effect of making a great catch Tuesday morning. As a general thing, they would get almost all the fish. I used to do the same thing. The fish would lie back of the leader, not having a free passage.

Question. Suppose you pull up the leader?

Answer. Then the course would be clear.

Question. Suppose you were to require that the nets be so arranged that there could be no impediment for two or three days, would not enough fish get by the nets so as to secure an abundant stock of the fish, year by year?

Answer. That would help; of course it would. Why do the fish come in to the shores? So that every man can get them. How was it with our fathers? I remember when my father used to say he was going off to the beaches for scup. Every family in the spring of the year used to go and pick up scup enough for their use. They smoked them. Do you see them now? Why not? Because our stock-fish are taken away at the season of the year before they have spawned. And now the human child has got to suffer for it. Traps are down here all summer, and they catch eels, flounders, and Spanish mackerel, and everything that swims, more or less.

Question. Squeteague?

Answer. We have always caught squeteague here with the hook. They are not a new fish to me. I have always known them from childhood. I know you cannot go off Point Judith and catch a scup to-day. I will give a dollar a pound for every scup. Ten years ago you could catch any quantity, and there was fifteen miles of coast you might fish on. The scup used to come from Point Judith to Brenton's Reef in about two tides. I used to have my boat ready to run back and forward, and in about two tides or twenty-four hours after catching them at Point Judith I got them at the Reef. It is about twelve miles. If the wind was northeast, they would come slower. They come in on the tide and go back on the ebb, and sway with the tide, going a little farther forward every time. When they first come in, they are kind of numb; some call them blind. I think there is a kind of slime on the eye in winter, and they want a sandy bottom to get off the slime. From Point Judith to Saughkonet is about four tides—two days.

Question. Did they come much earlier than usual at Point Judith this year?

Answer. About the same. They expected them in February, and got the seines ready. They had them in the water in March. I always judge by the dandelions; when I see the first dandelion, scup come in;

I watch the buds, and when the buds are swelled full, then our traps go in. When the dandelion goes out of bloom and goes to seed, the scup are gone; that is true one year with another, though they vary with the season. I am guided by the blossoms of other kinds of plants for other fish. When high blackberries are in bloom, we catch striped bass that weigh from twelve to twenty pounds; when the blue violets are in blossom—they come early—you can catch the small scoot-bass. That has always been my rule, that has been handed down by my forefathers.

Question. When scup were plenty, and they first had traps, did they keep them down all summer?

Answer. One season I kept them down till the 12th of June; that was the latest I ever kept a trap down. In the latter part of the time I got from fifteen to twenty barrels a day; but in the early part of the season I got a thousand or fifteen hundred barrels a day. That was ten years ago.

Question. You think if a trap were kept down all summer, some scup and other fish would be taken all the time?

Answer. Yes. The fish are changing ground for food; to-day I may go to such a place and catch scup, and to-morrow I do not get them there; they have worked up the food there. It is just the same as in the case of herds in a pasture. We find out by one another where the fish are; we are all along, and we signal each other when we find good fishing. That is the way we used to fish; but now they are so scarce, we don't tell when we find a good place. It makes the people selfish as the pigs. That is the tendency.

Question. How long have you known Spanish mackerel?

Answer. About eleven years. I don't know that I ever saw one but once before I was fishing at Gooseberry Island. I think they might have been here before, and they would have been taken if they had been fished for in the same way, in the summer season. The hotter the weather, the more Spanish mackerel we get. Last year we had the hottest season for some time and the most Spanish mackerel. They are a southern fish. I have caught them with a drail on a hook. They are not a native of our waters. I never knew any caught thirty or forty years ago. They are not as plenty yet this year as they were last. I caught fifty last year in my gill-net. We get all our fish over at the pier in gill-nets—tautog, shad, menhaden, sea-bass, squeteague, and Spanish mackerel. We use the menhaden as bait for sea-bass. We get cod-fish, pollock, and hake in the traps. I never knew any torpedo-fish here.

We cannot get any scup now. I have not seen one since the trapping season was over. I have five men now fishing for me, but none of them get any scup. I think the blue-fish are about as abundant as last year. They come in schools at different times. Scup first come in from the 15th to the 25th of April, and will not bite when they first come in; they are not caught with the hook until the last of May or first of June. Fish do not generally bite when spawning, so that any amount of line-fishing will not destroy the fish. I have seen many a handsome fish that I wanted, but could not tempt to bite; they would turn aside and leave the most tempting bait. At other times the most inferior bait will be taken greedily. The hook and line will not make any inroads on the fish so that there will not always be a supply.

I never knew a blue-fish to feed on scup. In all my catch of blue-fish for three years I have not been able to find one. I find squid, lances, herring, menhaden, and the tail of the robin, bitten off just back of the

fin. I have found eels in them, but never, within three years, have I found a scup in a blue-fish. I have examined every one. I caught three blue-fish yesterday, and they threw out a great many squid. I think the feed for the young fish is as plenty as ever—as it was twenty years ago, with the exception of the menhaden and herring. Crabs never were more plenty, and the lobsters are more plenty than I ever knew them. I think squid are as plenty as I ever knew them. People complain that menhaden have left the bay. Along about the first of September they will come back, perhaps; I know that is about the way they generally do.

The lance is found all along the coast; I never found it buried in the sand.

I only know one kind of sword-fish and one kind of bill-fish. I have seen the saw-fish when I was a boy—about thirty-six years ago. They followed some sulphur-bottom whale in.

EDWARD E. TAYLOR:

I have caught but a few fish; I want something done to try to save the fish for my children.

Question. How are we to help your children to get fish?

Answer. You will have to abolish traps. I used a trap-seine this spring, but I am now running gill-nets. We have only three, one hundred and sixty or one hundred and seventy fathoms in all. We have caught about a dozen Spanish mackerel this year. We sell our blue-fish at five cents a pound to the dealers here; to families we sell some at eight cents a pound. I do not find scup in blue-fish.

I have seen scup, and blue-fish, and sea-bass all come to my bait in the deep, clear water, at the same time, down back-side of Gay Head. I would drop my line down, and I could see them when they came to the bait in about twenty feet of water. I used menhaden, cut up, for bait.

We got a great many small scup in the traps in the latter part of May, about two to two and a half inches long, right at the south side of the island. I caught an albicore last year that weighed 550 pounds. It was sent to Providence for steaks. It was sold for ten dollars. Last year we caught a fish called cero that weighed 7½ pounds; it was sold for five cents a pound, not knowing the worth of it.

I owned a trap before the war, and sold out very cheap, to go to the war; and when I came back, after three years, I found the fish had decreased very much. I was the first witness on the stand before the committee of the legislature against the traps. As long as the law allows any one to fish with seines, I shall do it; and as soon as they make a law to stop it, I shall stop.

I do not know what protection is best; I think there should be a law to prevent fishing at certain seasons, or with nets of a certain size of mesh. A great many small scup are caught in the traps and destroyed, because the people are too lazy to let them go.

I can recollect when you could catch bass all day long; now I have to turn out every day, at from one to two o'clock in the morning, and to get my lines in as quick as it is light, for after the sun is two or three hours high they will not bite, unless it is thick water and a heavy sea. I have fished with another gentleman three years, and I do not think we have caught a bass in the afternoon. He is an amateur sportsman, and he likes to go now better than when the fish were plenty, because it is more of a science to catch one when there are but a few. I have

had a bass run out sixty-four fathoms of line; one run out the length of three lines. He weighed 48 pounds.

Mr. GARDNER BREWER:

I have been a resident at the end of the avenue eleven years, and I think the tautog and blue-fish are falling off very much. I do not think fifty have been caught off my grounds this year. My friend and neighbor, Mr. Mixter, who came here about eighteen years ago, sold his place in disgust, because he could not get fish. That was his great pleasure, and he went off almost in a rage. He used to scold a great deal about the destruction of fish in the spring. It is really a great misfortune to Newport. I used to see a dozen boats fishing off my place at a time, but now they have abandoned it. I have not seen a boat there this year.

Testimony of E. E. TAYLOR resumed:

When I was a boy, I could catch four or five hundred scup here early in the morning, and, after coming ashore and peddling them out, two for a cent—and sometimes not get my pay at that price—would then go off in the afternoon and catch as many more. I recollect that when the factories stopped, in 1857, I think, the people were thrown out of work, but they could go and get fish in any quantity to live on, scup and blue-fish. The poor people could go off and get as many as they wanted without any trouble. Soon after the twine went into the water. The first piece of twine I set was a mesh-net, with a two and a half inch bar—too big. It would fill chuck full of scup. Then I and my brother-in-law, George Crabb, went to fishing together, and got a net twelve feet deep and thirteen fathoms long, and we could get as many scup as we could haul; but I suppose now you could not get half a dozen there. Then I bought a $40 net; and then, with others, we bought a large trap.

We have done very little in catching blue-fish. We caught more last year in two weeks than all I have caught this year. It looks to me like a miracle how any fish get by the traps. The coast is strung all along full of twine; and how the fish can go eastward and get back again I do not know. About the only thing that can account for it is the occasional heavy seas. When the water is thick it keeps so off the shore two miles, and the fish follow along the edge of the thick water; that is the only way that they escape.

Question. Do you think that if all sorts of nets were abolished, fish would be more plenty in three years?

Answer. Yes, sir. I think that where there is one now there would be a hundred in three years.

Question. Suppose we say, "You may fish with as many gill-nets and draw-seines as you please, but not with traps," how would that be?

Answer. It would not make a great deal of difference.

Question. Suppose we say "You shall not fix your nets except in the tide-way?"

Answer. That would not effect any thing. We moored our gill-nets at each end with anchors; they do not swing with the tide. We set them in as still water as we can. The mackerel run with the wind, and we set so that they shall strike square.

I do not see that the blue-fish run any lower this year than last. We catch them about the middle of the net. We have seventy-six meshes deep, and catch them about midway. We have a 4½-inch mesh; we catch some all the way down. As a general thing, we catch them that

weigh from 2½ pounds up to 7 and 8 pounds. An eight-pound blue-fish is rare. We caught this morning eighteen fish; yesterday morning we caught fifty. That is big. For three mornings we took nothing but two little dog-fish and some butter-fish.

We send our fish to New York sometimes. We open our blue-fish. I do not find scup in any of them. The dog-fish that we have around here feed on crabs; sharks feed on menhaden. The heaviest shark we have around here is the thresher; they feed on menhaden. I saw a thresher-shark kill with his tail, which was nearly eight feet long, half a bushel of menhaden at one blow, and then he picked them up off from the water. They come up tail first, and give about two slams, and it is "good-by, John," to about half a bushel of menhaden. The body of the thresher-shark is about a foot longer than the tail.

When the blue-fish first came here and were caught, people used to think they were poison. My father, who was eighty-two years old when he died, said they used to catch blue-fish that weighed sixty pounds. That was a long time ago. I can recollect when they first began to catch them here; it was about thirty-two years ago; I was about ten years old. My father said sheep's-head used to be caught here in great abundance some forty-five or fifty years ago. I used to have to fish all day to get as much money as I now do for the few fish I catch. The scarcer the fish the higher the price. I have peddled striped bass about the streets at four cents a pound; now they sell at the market at from seventeen to twenty cents a pound.

NEWPORT, *August* 3, 1871—*Evening.*

At the office of Captain Macy, custom-house, this evening, there were present several fishermen, some interested in traps, and others who fish only with lines.

Mr. SMITH, an old fisherman, said scup and tautog were growing more and more scarce. This, he thought, was owing to the use of seines. He had not caught a scup in four years with a hook. Ten years ago he could make good wages catching scup. The first of June was the time he first started for fishing. When they first come in, scup will not bite for about three weeks. They are full of spawn then, and are going up the river. He never saw a scup spawn. Had not caught a blue-fish this year; it would not pay a man to fish for them with a hook. I used to catch three hundred pounds in a day. Blue-fish came in here first about forty years ago. They began to grow scarce about fifteen years ago.

Mr. WILLIAM RECORD. I set gill-nets myself; I set the first seven years ago. It was not unusual to catch from five to eight hundred pounds in a day. I am now setting from two hundred and fifty to three hundred and fifty fathoms, instead of fifty fathoms, that I had at first. Once I caught twelve or thirteen hundred weight, but generally I don't think we caught over five hundred weight. I have five nets now; but I don't catch as many fish as I did when I had one net, seven years ago. We fish on the beach inside of the point, near what we call the Beach House. We set the nets so as to break the tide, and therefore we calculate to set inside of the points of the small bays. I don't think there is one fish in a hundred that there was twenty years ago. Then it took half a dozen men to keep the net clear; now we generally haul them once a day, and they are not overloaded.

I catch once in a while a Spanish mackerel. They came along some, a fortnight ago, so that there would be four, three, or two in the net at a time; then, for several days I did not catch any. Hot, calm weather is the time to catch them. I have never seen them schooling around like blue-fish.

[One person present said one hundred and sixty Spanish mackerel were caught at one haul up at Coddington's Cove.]

The gill-net does not catch one-fourth as many as a heart-seine. In the gill-net it is very seldom that we catch a blue-fish weighing less than three pounds. A small Spanish mackerel goes through our net. The greater part of the fish are caught about a fathom below the surface, in a gill-net. We catch most when we have southerly winds; not many with northeast and north winds.

The first run of scup was more plenty this year than last; but nothing compared with nine or ten years ago. Governor Stevens and Mr. Whalley took up their net, and they turned out seven hundred barrels of scup, because they could not sell them. Afterward they sold them at Point Judith, for eighteen cents a barrel. They sold some for twelve cents a barrel, and I have no doubt they got more that year in that one trap than have been caught in all the traps in Rhode Island this year.

They made some good hauls in 1863, but they have been growing more and more scarce ever since. Governor Stevens took all of 10,000 barrels of scup that season. A thousand barrels were lost. They were saving them to get $1 25 a barrel, and they had to sell them for 60 cents a barrel. When they were taken out, 250 barrels were put on board a Fall River schooner. I used to see large schools of scup off outside, when I was fishing, but I have not seen any lately. They are growing scarce, from some cause; we are either working them up, or else we are growing so wicked that they will not come to see us.

Twenty years ago it was no trouble to go down and catch from half a dozen to twenty small-sized bass in an afternoon; but now, when anybody catches three or four bass, it is told of as something strange.

Fish are plenty in New York, because where there was one seine years ago, there are twenty now.

In the spring of the year, the average size of scup is a pound and a half.

[One person said he was present one morning this year when Mr. Holt's heart-seine was drawn, and there were as many as twenty barrels of little scup turned out.]

The small scup follow after the big ones, and there is a class that is called mixed scup, coming along about a week after the first run of large scup. Small scup are caught all summer, with heart-seines—last year's scup.

They used to set the seines about the middle of April, but now they do not until the last of April or the first of May; this year they came along rather earlier than usual. The nets are generally kept down about a month. All the nets were put down this year about the same time, and they all began to catch scup as soon as they were down. They got five dollars a barrel for the first scup; then down to three. They are not used for manure now. They have been going down in number steadily since 1862; they were put on the land in 1862.

Menhaden come along after the first run of scup; they do not purse menhaden till after they get through with the scup. They used to put down the traps about the 20th of April, and took them up about the

20th of May, when they went into the menhaden fishing; but now they keep the traps down through May.

When I was a boy I used to see men who followed tautog fishing go off in the early morning, and come back with as many as they could sell by 7 or 8 o'clock in the forenoon; now you cannot get any to sell by going all day.

The striped bass that winter on our coast have dwindled off to nothing.

GEORGE DWINNELL:

In 1835 they put their seines together near Point Judith, and they caught fish by thousands; they have never been so plenty here since.

In one trap there were 20,000 small bass caught in one season; they were sold at 25 cents a dozen. We used to catch them weighing from two to four pounds; now we don't get any of that size. At one time I caught bass for a week that weighed from twenty to sixty pounds; then there was a seine put in, and they started off.

Mr. MACY:

I have seen 2,000 pounds caught here in a day. George Mason sold what he caught in one day for $22.

Mr. SMITH:

Seven years ago the 28th day of June, I sold fifty-six dollars' worth, that I caught before 6 o'clock in the morning; I got eight cents a pound for them.

GEORGE CRABB:

I do not average more than two dollars a day, fishing. The greatest catch in one day this year was 206 pounds; I have not caught over 200 pounds a day but twice this year—once 201 and once 206. They were extraordinary days, and I fished from 3 to 4 o'clock in the morning till 6 o'clock in the afternoon. If I had fished as long a few years ago, I should have got more than my boat would carry. I have loaded my boat with sea-bass, but I cannot get any now; I think my average catch has been about sixty pounds a day, during this season. The season is best about four months. I used to catch blue-fish; this year I have not caught any.

Mr. SMITH:

I have caught twenty-four blue-fish with a hook and line; they are not worth fishing for.

Mr. C. H. BURDICK:

Four years ago last May I went off fishing, and caught 63 blue-fish in one school; that night my brother-in-law, who had a seine in Coddington's Cove, caught over five thousand pounds. The school went right up the river, and they caught them.

Mr. MACY:

When I first came here, there would be thirty or forty sail of smacks here for fish. There has been a great falling off until this year, when there are scarcely any. About all the fish caught here have been shipped from the steamboat wharf.

Mr. RECORD:

Mr. Swan's father told me that at the beginning of the present century scup were a new fish.

Extract from correspondence with parties near Newport.

"NEWPORT, R. I., *August* 4, 1871.

"About the 10th of October, in the year 1869, Captain Joseph Sherman and William B. Gough in three hours' fishing caught 250 pounds of tautog and 40 pounds of cod and sea-bass. Another boat occupied the same ground the same day, and caught 250 pounds tautog—two men fishing.

"WM. B. GOUGH."

"NEWPORT, *August*, 1871.

"DEAR SIR: Thinking you might wish to verify, or inquire more into the matter while here, I send you the statement of Captain Garritt, of Westerly, Rhode Island. He has known bass caught in June that weighed from half to one pound, that were first put into a pond, and, when taken out in October following, weighed six pounds. A boy living with him caught, at the mouth of a small brook, two miles above the fishing-ground on Pawcatuck River, a female tautog weighing about 5 pounds. It was very full of far-developed spawn. He thinks the spawn would weigh a pound. The water where taken was not over one foot deep. He also states that the light-house keeper, (not the present,) Mr. Pendleton, lost a bob fishing for bass at Watch Hill, that was taken next day with the fish in Long Island Sound. It was identified and returned to him.

"Yours, with respect,

"J. M. K. SOUTHWICK.

"Professor BAIRD."

"TIVERTON, *August* 11, 1871.

"DEAR SIR: I have been informed that you are collecting information about fish for the purpose of guiding Congress, if they see fit, to take up the question. If so, I should like to submit some facts to you about their increase, decrease, &c., that have come under my observation.

"This question is important, for it affects a large number of people, and there are large sums of money invested, and hasty legislation upon one-sided facts might ruin men, and all trouble might be averted provided the proper facts were presented.

"My opinion is that man is not an enemy of a salt-water fish. I mean by that statement that all machinery yet devised by man for taking fish does not perceptibly affect the supply, although there are many facts about fish, looked at superficially, that would tend to lead a man to a different conclusion. For instance, scup have disappeared from Narragansett Bay. Some say seines have been the cause, or traps. But squeteague have taken their place, and where, ten years ago, there were millions of scup, now there are almost none, but millions of squeteague. How does that square? If the traps destroy one, why not the other, for they both come the same course and both are caught in traps. But the most significant fact in relation to the squeteague question is, they don't come few at a time and gradually increase from year to year, but suddenly appear. Hundreds of acres could be seen any clear day between

Point Judith and Providence; and the same unexplained cause can be shown by facts of every fish that inhabit our waters. For ten years there have not been blue crabs about here. This year the water was alive with them about as large as a three cent piece, and probably in a year or two they will be as thick as they used to be when you could catch easy three bushels at a tide. Ten years ago there were twenty square miles of blue muscles off Hyannis. In a few years they disappeared.

"Tell me where I can see you, and I will come and talk with you. I should like for you to come to Round Pond, Maine, and I would see that you were shown this fish question as you ought to see it, by going among the fishermen and observing its practical workings. I would furnish you every facility, and I think you would like it. I shall be in New Bedford within a fortnight, and if you are to be in that vicinity, let me know, and I will find you if my business will let me.

"Write me, and send your letter to Round Pond, Maine.

"Yours,

"DAVID T. CHURCH.

"Professor BAIRD."

NAUSHON ISLAND, VINEYARD SOUND,
August 23, 1871.

Testimony of PETER DAVIS, of Noank, who has two pounds in Buzzard's Bay, on the northwest side of Naushon:

I have been here all the spring; got in about the first of May or last of April. A few scup were here then. They caught them westward of us before we put down. I think most of the scup had gone by on the 1st of May; they were the first fish we caught.

My idea about fish striking the shore is, that they strike in square from deep water when they find the water of a certain temperature. They run close to the shore, and, if the shore rises gradually, they will come in very close to it, into very shoal water. We have caught plenty of small scup, and they are plenty now. They are five or six inches long. We first caught these small ones about the last of June; none of them earlier than that. We get very few big scup now. I have made up my mind this year that scup grow pretty fast. I think a year-old scup weighs about three-quarters of a pound. We get some that don't weigh over half a pound that I think were spawned this spring.

I have fished at Montauk five or six years. We have caught a few stingarees here, but do not catch many now; it is late in the season for them, I think. We used to get them up at Montauk until the last of July and into August. I do not recollect but three kinds of stingarees caught here. We are not paying expenses now. We got some mackerel early, and we get a few squeteague. Blue-fish have been more plenty this year than last. They are a very uncertain fish, anyway. They are somewhere, of course, but they don't show themselves all the time. I don't think there is any greater variety of sharks and rays at Montauk than here. We used to get a silver-fish there that weighed forty pounds. The scales were two and one-half inches, and looked as if they had been plated. The fish was shaped a good deal like the salmon. They had a curious-shaped mouth, that seemed to have a joint in it, where the lower jaw slid into the upper one.* Squeteague eat scup either in or out of the pounds; they are as voracious as blue-fish. We get for

* Probably *Megalops thrissoides.*

blue-fish about five cents a pound; but we make the most on squeteague. We have taken 10,000 pounds of squeteague this year; we took 6,000 pounds at one haul in the middle of June. That was nearly the first run. The biggest squeteague we have caught, I think, would weigh ten pounds. A north wind or northeasterly wind is the best for fish here.

REUBEN DYER, at Mr. Forbes's farm, west end of Naushon:

We caught two or three scup a day; not so many this year as last. There are more little scup around the wharves near New Bedford than there are here. Squeteague are not more than half as plenty about here this year as last. We catch them up at Quick's Hole. When fishing for tautog, once in a while we would catch one. We use menhaden as bait for squeteague. Most are caught after dark. We used to catch a good many blue-fish at the bottom. All fish are scarcer this year than last. There have not been any blue-fish around this year, except very small ones. I have seen, formerly, this hole (Robinson's Hole) all alive with blue-fish.

Scup began to get scarce about here seven or eight years ago. The decrease was not sudden, but gradual. I cannot say it was the traps, exactly. I think the blue-fish destroy a great many fish; they eat up the little fish.

The men who have pounds here caught a few mackerel the first part of the season. They do not catch many Spanish mackerel; but a few bonito. I do not think shore-seines destroy the fish much; but some kinds of fish are destroyed by traps.

SYLVANUS WESTGATE, at Robinson's Hole:

I am out on a seining-cruise. I have a net of about sixty fathoms. I am not doing much now; catch some blue-fish and bass. I generally haul at night. I think I should not catch anything in the day-time. I have not caught a hundred scup in five years with the seine. I have not caught any bass this year that weighed over twenty pounds. I don't think they are half as plenty as last year; there is no kind of fish as plenty, unless it is menhaden.

Mr. DYER. I have caught three sea-bass this year. A few years ago I could go out and catch fifty or sixty.

Mr. WESTGATE. I think the traps destroy the fish; I don't think the seines do much hurt. We have seined ever since we were born; but a trap is a stationary thing, and if a fish is going by he must go in.

Mr. DYER. They catch more than they can sell in the traps. The pockets are sometimes crowded, and a great many die. This spring they could not get smacks to take the fish to New York fast enough.

Mr. WESTGATE. They need not try to stop trapping; they will run themselves out pretty soon.

Mr. DYER. The fish taken at the pound here are not worth $25 a day. Last year a man hired the privilege of the pound at Menemsha Bight, and he sold $1,200 worth in a week. Squeteague are not half as plenty this year as last. The scup, sea-bass, and tautog, when they come in in the spring, are full of spawn, ready to shoot. They have ripe spawn in them when they come into the pounds. I had some and dressed them, and found spawn in them so ripe you could not take out the spawn whole.

Mr. WESTGATE. I think blue-fish and squeteague kill about as many fish as pounds. A blue-fish will kill twice his weight in a day. A blue-

fish will go wherever scup can go, and they feed at the top more. They feed at the bottom at night.

Mr. DYER. I can tell you just my opinion about traps. If they did not catch the mother fish in the spring, when they come along the shores to spawn, I don't think they would destroy the fish a great deal. They should not be allowed to put them down so early. I think they should not be allowed to put them down before the 1st of June. By that time the bottom fish have got through spawning.

Squeteague come about the 10th of June; they come from the westward; they catch them at Long Island before we do here.

Question. What would you say of the plan of allowing them to fish at any season, but requiring them to draw up the net two or three days in a week?

Answer. That would be a good idea.

Mr. WESTGATE. I do not think Spanish mackerel have been around here many years; they were something new to me, and I had been fishing twenty years.

Mr. DYER. I never saw a Spanish mackerel till this year.

Mr. WESTGATE. I never saw a bonito till two or three years ago; I have not caught many this year. I think new fish are coming on to the shores, and if it were not for the pounds we would have them plenty.

PASQUE ISLAND, VINEYARD SOUND,
Club-House, Pasque, August 23, 1871.

PHILIP C. HARMON, treasurer of the club, thought it a gross outrage to have fish-pounds on the shore near. This pound was kept, he said, by New London men. There was a much larger capital employed in pound-fishing than he had supposed—between five and six millions of dollars. Fifty bass destroyed in the spring prevents a vast amount of increase.

PETER BALEN, a member of the club, said he understood that the trappers threw away, at one time, a large number of dead blackfish, (tautog.) There are not as many tautog as there used to be by nearly one in twenty. There is a great diminution of the groundfish. The bass are more scarce. I think the traps interfere with them very much. We had a law passed to prohibit drawing a seine on this island; but they draw a net every night, and if I were to go and try to stop them, they would insult me. I am persuaded the trappers do not make any money for themselves, and they perfectly clear the whole coast of fish. I think the great evil of the traps is, that they catch the fish in spring before they have spawned. I do not think the blue-fish diminish the other kinds of fish that I spoke of. They generally follow the menhaden.

Mr. HARMON. The blue-fish have very materially diminished along here within three years, to such an extent that when fishing off our stands we do not take more than two or three in a day. Out here I have caught as many as sixty in a day by drailing for them. Now we cannot catch any. The blue-fish and bass accompany each other, I think. The blue-fish chop up the menhaden, and the bass pick up the pieces. I don't think there is one blue-fish where there were fifty a few years ago.

Mr. BALEN. Two of us caught twenty-eight bass once, weighing from five to twenty pounds apiece.

THOMAS E. TRIPLER, a member of the club, said he had been here eight days, and had caught twenty-four bass, weighing from four to twenty-nine pounds. I think they are more plenty than they were last year.

MENEMSHA BIGHT, MARTHA'S VINEYARD,
EAST OF GAY HEAD, VINEYARD SOUND,
September 22, 1871.

JASON LUCE & CO., (the company consists of Jason Luce and Brother, Mr. Tilton, and two other men :)

Blue-fish are quite plenty near Noman's Land as late as November. We find little fish in the stomachs of blue-fish ; we have taken out small scup. I took forty-two scup about two inches long out of the stomach of one blue-fish, a year ago this summer, out at the eastward of Edgartown. The blue-fish weighed about three and a half pounds. Besides the forty-two that I counted, there were some so far gone that they could not be counted.

Menhaden average from 225 to 240 in a barrel. We caught this year 2,000 barrels, or about 470,000 menhaden. We caught over 100,000 mackerel ; not so many as last year. We began fishing about the 12th of April, and caught alewives first. We caught about 100,000 dog-fish this year. All fish were earlier than usual this year. Mackerel generally come from the 5th to the 10th of May, though we get some scattering ones earlier. Menhaden come next. Tautog come early, with the herring. We catch shad the last days of April. When we see blue-fish, we conclude the spring fishing is at an end. We generally catch them about the middle of June, going west. We see acres of them schooling off here. They are over in the Bay ten days earlier than here. Some come into the Sound through Quick's Hole. Menhaden are taken in the Bay before we see any here. We catch scup here just about the time they do at Saughkonet. I think a part of them come in by way of Saughkonet, and a part by Gay Head. Scup are around Noman's Land, and are caught there with the hook. We have noticed a good many young scup this year ; *never* saw them so before. This is the third season we have fished in the summer and fall, but this is a new thing to see so many young scup. I was up in Connecticut last week, and they told me the young scup were numerous there. The scup we take in the pound are spawning fish. We take them weighing from one and a half to two pounds. Many will not weigh over half a pound. We catch more of that size than of the large size. I have dressed scup that were not very large which had the red-roe in them, which we call ripe. I think we find spawn about as often in the medium-sized fish as any.

We have every opportunity of knowing what fish eat, and about their spawn, because we handle a great many. We can squeeze young ones out of a dog-fish any month in the year. Last year we caught a drum. We caught two salmon this year. We catch what they call sea-trout—not more than three or four in a season. We catch the salmon in May. We catch a few blue-fish, squeteague, and skip-jack, or bonito. We have caught 150 albicore at a time.* We have caught as many as 500 this year. They bring six cents a pound. We catch lump-fish in the season of all sizes, up to twenty inches long. They are as apt to get the first scup at Lombard's Cove as we are here.

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* *Orcynus thynnus.*

I suppose we catch more fish in our two pounds than are caught in all the other pounds in the Sound put together. We think this is because we are so near the ocean. When both pounds are in operation, we catch more fish in the eastern one. Later in the season we see schools of fish coming from the west.

We can judge something of the way fish are going by those that are gilled in the leaders. We have caught the conger-eel in the spring. They are a spotted fish, and have considerably large holes in the side of the mouth. We catch many of them every year. We catch the true cat-fish also every year.

Question. What would you rent your pound for by the month and man it—five hundred dollars?

Answer. If you would say five thousand dollars a month, we might talk about it.

Before we came here with our traps, the herring had begun to diminish up in Squib-Nocket Pond. But last year they could catch as many as they wanted—from five to ten thousand at a time.

Last year and the year before they caught more than they had in any year for thirty years. Scup began to diminish long before we put down pounds here. Summer trapping would not pay without the spring trapping. I have dressed tautog in the month of August chock-full of spawn.

Question. Would it suit you to propose to close the pounds for a certain time in each week; say from Saturday noon until Monday noon; and make the law imperative on all the pounds, so that no fish should be taken during that time by anybody; and with such penalties that it will be absolutely certain that the law will be enforced?

Answer. That would suit us better than to be stopped entirely. We would like that, of course, if we could not do any better.

Question. What would be the best way to prevent fish from going in the pounds?

Answer. Close the door; and if they went into the heart, they would pass right under.

We make a good deal of money on mackerel; and it is no worse for us to catch mackerel than for the mackerel-catchers. The money that we make on tautog and scup is a mere trifle. We make money on the fish that nobody pretends to catch with the hook. We have been in the pound business about ten years, and I do not see any diminution of fish of any kind. Mackerel last year were plenty with us.

There should be a pretty heavy penalty, in order to carry the thing through; and it ought to be so.

Question. What should be the nature of the penalty?

Answer. I should say put it pretty heavy, for we should obey the law.

Question. How much?

Answer. [All present agreed that $1,000 was not too much.]

Question. Would you advise a fine and confiscation of the equipment?

Answer. Yes, sir; that is a good idea.

Question. What would you think of requiring a license, in order to put down a pound?

Answer. I should like that very well.

Question. How far apart should the pounds be of two different parties?

Answer. About a mile.

Question. Would you say that, when a license to place a pound in

any given locality was granted, that there should be no change of location without a new license?

Answer. There should be no change to any great extent. It is not a common thing to change a pound from one point to another.

I think we should fare better to have the United States control the business than to have the State do it. We want all to be served alike in the fishing business, as well as other things. If we cannot fish, we don't want our neighbors to fish. If we could have our rights secured to us by a license, it would be better for us.

[All agreed that if it was a uniform thing to have the time of fishing restricted, it might be quite as well.]

Boston is the market for mackerel. We catch a great deal of bait to supply the cod and mackerel fishermen. We don't catch the kind of fish that the people are contending for after the 1st of June.

We never hauled our trap on Sunday, and are not disposed to do it; if the fish come in then, well and good. We have caught but few striped bass; perhaps sixty or seventy.

One of our leaders is 216 fathoms and the other 225.

About one hundred and fifty barrels of scup in a day is as many as we have caught this year.

Last year, on the 28th of September, mackerel were more plenty in this bight than we ever saw them. Our traps were not down then; we have never fished so late as that. But we propose to keep our traps down this year till the end of the season.* The fall mackerel are small. In the spring they are larger, and we get all the way from two to eighteen cents apiece for them.

The bill-fish, as distinct from the sword-fish, is found near here. The sword is smaller; the fin does not hook over like that of the sword-fish, but goes straight up; but not so high as the fin of the sword-fish. The sword is not so flat. There is a good deal of difference in the eating. You can see any quantity of them sometimes; but they are shy.

EDGARTOWN, MARTHA'S VINEYARD,
September 27, 1871.

This evening there were present at an examination of the subject of fisheries the following-named persons, who are employed in fishing, but who have formerly been commanders of ships, and several of them captains of whale-ships: Captain Francis Pease, Captain Charles Marchant, Captain Alexander P. Fisher, Captain Gustavus A. Baylies, Captain Joshua H. Snow, Captain Theodore Wimpenny, Captain Rufus F. Pease, Captain Thomas C. Worth, Captain Thomas Dexter, Captain John P. Fisher, Captain George Coffin, Captain Josiah C. Pease, Captain Leonard Courtney, Captain George A. Smith, Captain Richard Holley, Captain Grafton N. Collins, Charles F. Dunham, esq., Dennis Courtney, Henry B. Huxford, William Simpson, Holmes W. Smith, John Vinson, Thomas Dunham.

The persons who principally spoke for the others were Captain Francis Pease, Captain Rufus F. Pease, Captain Josiah C. Pease, and Captain George Coffin.

* They were kept down into October, but no mackerel were taken.—S. F. B.

Captain FRANCIS PEASE. Fish are getting a great deal scarcer than they used to be. A few years ago you could sit on the end of the wharf and catch fish enough before breakfast for a family. Any boy or old gentleman could do it. Now they are gone. The scarcity commenced when they began to put down the pounds. There used to be scup and tautog all through the harbor here very plenty, but now we can scarcely get any that are eatable; we have to go out of the Sound. Every year we have to go farther out.

I do most of my fishing outside. I have not noticed the harbor as much as the other fishermen, and do not know about there being young scup here, though there always are some. I was on the wharf fishing for cunners and I got two or three little scup.

There are no traps on the island this side of Holmes's Hole. Up at Menemsha they caught up so many fish that they could not dispose of them. We do not get blue-fish as plenty as we used to. There are a good many caught with seines. The boatmen think they have not done as well this year as before. Most of the fish caught here are shipped to New Bedford and New York. There are some thirty-five boats that are sending off fish. Vessels come in and take them—four or five of them. The majority of the boatmen sell to the vessels. The latest that I have known blue-fish to be caught was the last of October; but those are what we call the fat ones, weighing from ten to fifteen pounds apiece. We don't catch many of them, and those we want ourselves. Most of them are caught over at the island of Muskeget. I think the blue-fish spawn at the south. They are a warm-weather fish; the least cold will send them off into deep water.

Captain JOSIAH C. PEASE. We calculate that the blue-fish spawn here about the last of July and first of August. I have seen them when I think they were spawning on the sands. I have caught them a short time before full of spawn, and then for a time afterward they would be thin and weak. They do not get much fat about them till the last of August or first of September. They spawn on white, sandy bottom, right out to the eastward of this island, toward Muskeget. I have seen them there in considerable numbers formerly. All kinds of fish are scarcer now than they used to be. A few years ago we could get any quantity of them.

Question. What has made them scarce; has there been any disease among them?

Answer. Yes, sir. The disease is twine, I think. Fishing never killed out the fish.

When I was a boy we could catch as many scup right off the wharves as we wanted. I do not think there are as many fish caught with the hook and line as there used to be. We would catch them if we could get a chance.

It is only about twelve years since fish have been shipped in large quantities. Before that the market was nearer home, and no fish caught with the hook and line were shipped. Bass were so plenty in those days that we could not get more than three or four cents a pound for them; now they are worth ten or twelve cents. I recollect seeing one man, when I was a boy, haul up three thousand, that he allowed to lie and rot. Our boats could then get one hundred in a day quite frequently; large bass, too.

Question. But bass are not caught in the pounds, are they?

Answer. They are a cunning fish, and know enough not to go into the pounds after they have been in one once.

I do not know where the striped bass spawn. I have never seen any very young; none two or three inches long.

I never saw a young squeteague.

I have seen plenty of young rock-bass not more than two inches long.

The striped bass go up into the ponds and among the eel-grass, I suppose.

Question. Don't you think the blue-fish have something to do with making other fish scarce?

Answer. No. There have always been blue-fish. For thirty years they have been plenty.

Captain RUFUS F. PEASE. Blue-fish came in here before 1830. I recollect of hearing the old folks talk about blue-fish. I caught them before I went to sea, in 1824.

Captain GEO. COFFIN. I caught enough to load a boat in 1825. They were so plenty, I caught them just as fast as I could haul them in.

Captain FRANCIS PEASE. I have heard my father speak of the large blue-fish, weighing forty pounds. I think that must have been before the beginning of this century. They were all gone long before my day. The first that I recollect were small fish. The large blue-fish are not as active as the smaller ones. I think the blue-fish that are around in the summer, weighing five or six pounds, are the same as we catch now, which are large and fat.

Captain RUFUS F. PEASE. Blue-fish are growing plenty now away down toward Nova Scotia, and are growing less year by year here. The mischief of the pounds is, they keep the price down, and they cannot sell their own fish. I think they injure every man; I can see in the last ten years a great change.

Question. Why are fish so dear at retail?

Answer. That is all owing to the market-men, who have a compact among themselves that they will not sell below a certain price.

Captain FRANCIS PEASE. It makes no difference with us whether fish are high or low; they will not give us but about a cent a pound, while at the same time they keep their agreement not to sell for less than eight cents.

There were as many as twenty-five boats from the bluffs around here this year, driving off the fish from the shoals. They are not fishing-boats; but they come with a crowd of sail on, and they frighten the fish.

If fish were not caught any faster than they are taken with a hook and line, they would be plenty.

Captain JOSIAH C. PEASE. The pounds take all the breeding-fish that come into the shores. I saw in New Bedford, the first of May, large scup, full of spawn, and rock-bass. They were taken in the pounds, and could not have been caught with lines; it was too early.

Captain R. F. PEASE. They had so many tautog taken at Wood's Hole at one time that the net sunk and the fish died, and they had to turn them on the shore. They were chuck-full of spawn; large breeders in there, looking for a place to deposit their spawn.

Captain JOSIAH C. PEASE. Some of the farmers will have a pound, and go to it in the morning, and take out the fish and ship them, and then go to work on their farms. They do not follow fishing for a living.

Captain R. F. PEASE. The law ought to be uniform. One reason why the pounds were not stopped by the legislature of Massachusetts was, that the Provincetown people made a statement that they could not fit out their vessels with bait, unless they had pounds to catch it for them.

Question. Could they?

Answer. How did they do it before? They had the same facilities then as now. They used to send to Nova Scotia for bait; now they use only herring and menhaden for bait. Menhaden are getting scarce. This harbor used to be full when I was a boy; but it is a rare thing to find any here now, because they are caught up. They don't catch them at Saughkonet Rocks, as they used to. If they keep on catching them up as they have done, we shall have to send to California to get a mess of fish. We have had bonito here this year, and there have been more squeteague about this year than before.

Captain FRANCIS PEASE. When I was a boy, we used to catch squeteague very plenty. You cannot go off here now and get fresh fish enough for dinner and get back in time to cook it. You will soon have to go to New Bedford to get fresh fish. I used to go out at this time of the year and catch half a barrel, in a short time, of big pond-scup eight inches long.

Captain R. F. PEASE. Round Muskeget we used to do well catching the large blue-fish and bass, but now we cannot get any fish there. I am down dead against any fishing except with hook and line. A man who is rich can sweep the shore with nets, but a poor man, with his boat, cannot get any fish. The big fish eat up the little ones!

Captain J. C. PEASE. I think five hundred pounds is the highest amount I have ever caught this year in a day. Four years ago I caught 1,472 pounds in a day. I used to go three or four years ago and get 250, 275, and 280 fish in a day, but now it is hard work to get a hundred. They have been decreasing gradually every year for four or five years. Last year there was a great fall from the year before. I know there is nobody who goes over more ground for blue-fish than I do. I caught the first blue-fish this year the 29th day of May. Sometimes I get them as early as the 25th of May. We generally catch a few of the first when we are fishing for codfish at the bottom. We catch codfish till the last of May. We do not see them at all on the top of the water when they first come. We begin to see their whirls on the water about the middle of June. If the weather is warm, they will be here till the middle of October. I have caught them as late as the first of November. I have caught blue-fish that weighed thirteen or fourteen pounds. Blue-fish now are our main stay. If I could have my choice of the fish to be plenty, I would choose sea-bass. Scup are too small, unless they are very plenty; indeed, you could not make any wages catching them. I would like to have a law prohibiting the use of pounds and seines for ten years. Is not that fair? They have had a chance for ten years, and a few are monopolizing the whole fishing.

Question. What fish would be materially affected by seining besides bass?

Answer. As quick as frost comes, the bass go out into the rips, and we can catch them with hook and line. They follow the small fish out of the shallow water. The cold weather drives the little fish out, and the bass follow them. We never catch in the summer, in July and August. Last year, one day, I saw an immense number of blue-fish down beyond Cape Pogue. It was quite calm, and I could not catch one. There was a seine set there that afternoon, and hauled ashore about three hundred. That night a gill-net was set, and next day you could not see a fish. They were all frightened away. That was some time in June, I think.

Question. Would not they have gone off any way?

Answer. No, sir; you would see them month in and month out, if not disturbed.

Question. What do blue-fish eat?

Answer. They will eat everything that is living. We have a great many launces that they eat. They take young scup and squid. They eat a good many eels, too, and anything they can get hold of. [The general opinion was that blue-fish do not often eat eels.] The blue-fish eats off the tail of the eel.

Captain R. F. PEASE. You may go to work and dress 1,500 blue-fish, and I'll bet you won't find an eel in any of them. There is a time when, I think, they are spawning, when they will not bite at all, and they have not anything in them; but we generally find them pretty full. Eight or nine years ago, any laboring man could go down to the wharf and get as many scup as he wanted for breakfast, and then go to his day's work. They were good-sized scup; but now, if we get any, they are not fit to eat. Fourteen years ago, I could make more money catching blue-fish at a cent and a quarter a pound than I can now for three cents. I could sell them at three-fourths of a cent or a cent a pound, and make good wages at that. The vessels that come here now in the first part of the season offer two cents a pound.

NANTUCKET, *July* 18, 1871.

Testimony taken at Nantucket, July 18, 1871, being made up of statements by several persons engaged in fishing either with lines or nets of different kinds, Captain C. B. Gardner, Sylvanus Andrews, John G. Orpin, and Captain Winslow being the principal fishers with lines, and Mr. Snow, Gershom Phinney, William C. Marden, and Mr. Chapin using nets, the last two using hooks and lines also:

The testimony of those using hooks and lines only was substantially as follows:

Boat-fishing is nothing now. Blue-fish are not more than half as plenty as five years ago. They were not as plenty five years ago as they were ten years ago. They grew less after the use of seines and gill-nets began. That broke up the schools of fish that used to go around the island two or three times a day. Forty years ago the blue-fish were very small, about ten inches long. They were not here before that. Year by year they became larger, and in about three years obtained their full size. Up to this time blue-fish are scarcer on both sides of the island than they were last year, though early in the season they were more plenty.

The average catch up to this time has been less this year than last; but more have been taken, because there have been more nets. Fifty nets, probably, have been added this year, generally on the north side. These are visited every morning. They are from thirty to forty fathoms long. They will gill a blue-fish that weighs two pounds. Up to within a few years you could go with a boat anywhere in this harbor and get as many blue-fish as you wanted. Now they are driven out by the nets. They used to have spawn in them, but they don't now.

Mr. SNOW, who uses seines or gill-nets, said:

The 29th of May we caught the first blue-fish. We don't catch them as early with the hook as in seines. They came here late this season. About a hundred a day is a good catch this season. They weigh about six or seven pounds. In September we catch them weighing twelve to

fifteen pounds, getting twelve out of a hundred of that size. That is when they are passing back. We have caught some in the nets this spring that weighed ten pounds. We can catch blue-fish steadily throughout the summer; generally get some every day while they are here. When we get two tides a day we get more fish. They come in on the flood, and we take them when they are going out. We invariably catch them on the ebb. [It was here explained that the nets are set parallel to the shore.] The bait comes in-shore nights, and, I presume, they follow it in. They feed on herring and such like. They will eat all the scup they can get.

[The line-fishermen denied this statement, generally agreeing that they never find any pieces of scup in the blue-fish.]

Mr. SNOW. I have seen hundreds and thousands of little scup in them. They will pick up a crab, and when they cannot get anything else they will eat sand-squibs. I have found shell-fish in them, that they pick up from the bottom. On the line-fishing grounds the blue-fish do not eat scup, because they have spurs on them.

[It was generally agreed that they will eat small scup, and that they would drive away the scup, that run for protection into the eel-grass.]

Mr. ANDREWS. I think a large one would not run away.

Mr. SNOW. I have seen the largest scup in them, and even blue-fish in blue-fish. I don't think they waste any fish they catch.

Mr. WINSLOW. Nine-tenths of the blue-fish have no scup in them; but most of them have menhaden in them. There are no blue-fish here in the winter. They come about the 1st of June. I think there are fewer in the harbor this year than heretofore.

Mr. SNOW. We have probably two this year to one last year.

Mr. WINSLOW. We do not catch so many with the hook.

Mr. SNOW. We get some every day, but not so plenty as for a time back.

Question. How do you explain that there are three times as many in the seines and less caught with hooks?

Mr. WINSLOW. Those caught in the seines are small.

Mr. SNOW. We get as great a proportion of large ones as we did last year. I think blue-fish are more plenty in nets than last year.

Mr. ANDREWS. That is my explanation, too—because the nets have destroyed the hook-fishing.

Mr. WINSLOW. We used to get from two to three hundred blue-fish in a day through the season.

Question. Have the select-men given permission to put down traps?

Mr. MACY. They have not refused any.

Mr. SNOW. The pounds did not do well last year, because they were not rigged right. I never fished with a pound, and don't know anything about them. Fishing with pounds is much more expensive than with set or gill nets. It would cost $6,000 to put down a pound at Great Point. I do not think there are more than twice as many gill or drift nets this year as last. There are about fifty gill-nets out belonging to the people of Nantucket, and some fifteen or twenty to others, all on the north side of the island. They are twenty-five to fifty fathoms long, and from thirty to fifty meshes wide. The size of the mesh is from four and one-fourth to four and one-half inches, No. 15 or No. 16 thread. We get the largest blue-fish in the fall. The biggest one I ever heard of weighed twenty-five pounds. I have seen two fish that weighed forty pounds, one weighing eighteen and the other twenty-two.

GERSHOM FINNEY. I think blue-fish are more plenty this year than

they were last; they are very numerous this year. I think the large fish are more plenty, as well as the small.

Mr. ANDREWS. We don't catch any on the north side with hooks.

Mr. MACY. I went out with a party and got forty, a week ago. I know that the fishermen generally say they get fewer on the north side.

Mr. SNOW. I think more fish would have been caught with the hook and line if the price had been such as to suit the people.

Mr. WINSLOW. I have been up six or seven times, and have averaged, I think, two each time. I think we should have averaged more than that two years ago; perhaps not last year.

Mr. PHINNEY. I don't know where the blue-fish spawn; we see their young ones here. I have seen them alongside the wharf, about four inches long, a little later than the middle of July. They would catch the little launces and drive them about. The first school that comes is generally the largest.

Mr. SNOW. I caught the first blue-fish about the 22d of May.

Mr. PHINNEY said the 1st of June.

Mr. WILLIAM C. MARDEN and Mr. CHAPIN fish at Great Point. They fish some with nets and some with hooks. Blue-fish are more plenty than last year, at Great Point, by one-third. We were there last year, from April till about the middle of October, and we never got so many on the lines during the whole season as we have up to this time this year, fishing with the same apparatus.

Mr. ANDREWS. On the south side we have not caught so many, up to the present time, as last year.

Mr. PHINNEY. I think they came rather earlier this year than last.

Mr. MARDEN. We got them at Great Point about the 11th of June, first.

Mr. SNOW. We are southwest of Great Point. They always come earlier to the west, on the front side of the island, than eastward. As a rule there are larger fish outside. Sometimes they come in schools, sorted by sizes, and sometimes all mixed up.

[All the gentlemen agreed that they could not tell anything definite about the spawning of blue-fish. Some would spawn when they first came. Mr. Snow had caught them with spawn in them, the last of July. Mr. Andrews had seen them with spawn in them as late as the last of August.]

Mr. SNOW thought scup more plenty this year than last, at Long Hill.

Mr. ANDREWS said the whole place where they were caught was not larger than the room in which they were then sitting; and that was the only place where they can be caught, about a few rocks.

Mr. MACY. They are very particular about their ranges. When one gets the range of them exactly they can be caught in plenty there. We caught 150 there, the other day, one of which would weigh probably two pounds. But most of them would weigh not more than half or three-quarters of a pound. Last year it was almost impossible to get scup. We paid five and six cents right along to get even small scup.

Mr. SNOW. Last year, in September, we had a heavy gale, and after that, for three days, we had scup. I don't know where they came from. Generally they were on the in-shore side of the net. I think they are more plenty this year than last. Crow-fish, (black-bass,) generally so called about here, are more plenty, as well as tautog.

Mr. SNOW had seen no young scup three or four inches long. He had seen, that day and the day before, some about an inch long.

Captain BURGESS, an old fisherman, in response to a question about the use of nets, said: If it was expected that he should say gill-nets

made fish more plenty, such an answer could not be drawn from him very easily. Of the summer fish, the blue-fish and scup are the principal to be relied upon. Very few tautog are caught here. Blue-fish are scarcer, as a uniform thing, on the north side of the island than they have been. I fish on the north side of the island, from Great Point to Muskeget.

Mr. PHINNEY. I have seen more fish this year than in any two years before.

Mr. CHAPIN. There have been more than twice as many fish in the bay this year as there were last.

Mr. PHINNEY. I think they swim very low this year.

Mr. SNOW. I catch them lower than usual. I think they are after the bottom bait.

Mr. PHINNEY. We find them with eels in them, and every thing that lives at the bottom.

Mr. ANDREWS. I fish both ways. Twenty years ago we could catch enough at the top.

Mr. SNOW. Twenty years ago there were no nets belonging to Nantucket people, but they came here from Cape Cod and fished.

Question. Might we say that, upon the whole, the blue-fish are more plenty this year than last; but that, in consequence of their swimming lower than usual, they cannot be caught with hooks?

Mr. PHINNEY responded affirmatively, others not answering.

Mr. BURGESS. I should like to see some one go from Tuckernuck to the Point and get ten fish a day; whereas ten years ago you might get a hundred. I don't know the cause of the decrease; I think it is the nets. I have seen acres and acres along Great Point, but they would not bite.

Mr. ANDREWS. I think that is about the time they are spawning. I have seen them when they would not take the hook anyhow, perhaps for an hour, and then they would bite.

Mr. PHINNEY. We find plenty of spawn in the blue-fish this year; but not so many as we did at first; about the 10th of June we found it most plenty. We find now more males, generally, than females.

Mr. BURGESS. The roe of the female is yellow; that of the male is white. I do not know where blue-fish spawn; I never saw any of the eggs floating on the water. I think the females deposit their spawn, and then the male deposits his on top of it. I am very much opposed to nets of all kinds; I think they are a general loss and disadvantage.

Mr. SNOW. I don't know what the fish are going to bring this year. Last year they sold for about $8 and $10 a barrel. I do not send any fresh fish, but salt them. We send the salted blue-fish to New York and Baltimore. A barrel holds 200 pounds, which would make them worth about four to five cents a pound.

Mr. BURGESS. I think the scup, on the whole, are more plenty this year than last, but they are small; we do not get large ones, as we used to. The small ones are just as full of spawn. We find scup, not more than two or three inches long, with spawn in them. It appears to be perfect. Blue-fish a foot long will spawn. I got some to-day that I think were a foot long, and they had spawn in them. I think it is wrong to this whole community to have pounds.

Mr. SNOW. I think the blue-fish have used up the bait, and are going away to seek it. There used to be herring and menhaden plenty, but they are gone now. We do not find as many menhaden and herring in the blue-fish as we did in June.

Mr. ANDREWS. There has been more bait passing this island this year than for a long time.

Mr. BURGESS. The menhaden come in the spring, and then again in June, and pass by and go into deeper water, where it is cooler, and come back in the fall.

Mr. PHINNEY. There have been more mackerel here this year than last. There has been only one net for them. This was a special net, smaller than the blue-fish net. There have been more schools in the bay this year than last—large mackerel, that would be called large "threes." They were spawning when they went through. We never catch any small mackerel in nets. Cod-fish are around here in the spring and fall. They are gone now. They spawn here in the fall. We find spawn in them in October and November—very full; never, or very seldom, in the spring.

Mr. HOLMES had fished for cod on the Banks, and had found spawn in them in July there; sometimes got a bucketful, in latitude 45°. They do not appear to have any spawn in June, and we catch only a few female fish that have spawn in them. The Bank cod are a different kind from the shore cod. No shore cod are found with spawn in them except in the fall. I have seen a cod that weighed one hundred pounds—more than five feet long.

Mr. BURGESS. We once caught, on the Georges, 1,100 fish in one day, and they made 110 quintals of dried fish.

Mr. ANDREW thought cod as plenty as they had been. The shore fish bring about twice as much as those from the Banks. Take them right through, and they will not weigh four pounds each. We have a very large school here in the winter that will not average more than a pound and a half apiece.

Pollock are very plenty here, but they do not bring much. They come from the last of April to the first of June. They have no spawn in them then. I do not know when they spawn.

Haddock spawn from the last of October to December.

Halibut are not caught much about here.

Squids are plenty; they are not used.

Dog-fish are caught; many use them. They are not around here much at this time of the year.

Mr. BURGESS. The blue-fish were later than usual this year; I think two weeks later.

Mr. SNOW. We caught the first blue-fish the 30th day of May.

JULY 19.

SAMUEL H. WINSLOW, in 1870, June 17, went up about Tuckernuck and caught 130 blue-fish; on the 18th of June eight nets were set there; on the 22d he went there fishing again, and got only one fish. The nets, in his opinion, had driven them away, (to the devil, he said.) He thought the nets were driving the fish from the island.

GEORGE WINSLOW. Ten or fifteen years ago we could catch as many scup as we wanted anywhere around in our harbor. They were around the wharves; they are a salt-water fish altogether. Now we can catch scarcely any; it would not pay to go after them. It was so with bass. Ten or fifteen years ago we could go out here and load a boat with bass in a short time, weighing fifteen or twenty pounds. They commenced seining; and now it is very rare to catch bass. Bass and scup are pretty much used up; and the blue-fish are going out at about the same rate; they are driving them away as fast as they can. I have caught 140 bar-

rels in a season of blue-fish at Great Point. Then they commenced netting in the bay with seine and weir and every way in which they capture fish with nets. The second year after they commenced they had a net at Great Point, and I could not get anything to pay at all. Mr. Snow was with me then, and he has had to leave it and sell his fish-house. I presume a man could not get ten barrels of blue-fish in a season now. The nets alter the course of the fish. I think the nets use them up in a measure, and they drive them away. The blue-fish are not as plenty on the rips anywhere outside; they don't begin to be. I think about fourteen years ago they were the most plenty; then they commenced netting, and they have fallen off. I have stood on the south shore and loaded a cart in a short time, catching them over the surf; but now you could not catch half a dozen in the same time.

The scup and striped-bass are used up almost entirely. They went at the scup on a larger scale. Four or five years ago they commenced seining scup, to take them to the New York market. Our fish come from the south; and the scup and other fish, as the temperature of the water becomes right, come in and go eastward. They seine them in almost any depth up to eight or ten fathoms. They seined scup in the early spring, as they were passing. I have known as many as six hundred barrels seined at one haul, by a man named Lamphear, up near Tuckernuck Island, and he took them to New York. They were taken on the muscle-beds, at any time in the season for them. I think the scup spawn with us, because in July you begin to see small scup—we did years ago, but don't now. Years ago old gentlemen used to go and sit on the wharf, and in a short time catch a basketful; but one may sit there now from morning till night and not get one. The blue-fish are not only scarce but small. This same Mr. Snow has fished with me with a hook for years, and he was drawn away because he could not catch enough.

Most of our blue-fish are passing fish, and in a month they will be down east of Cape Ann. Year by year they go away eastward further and further. There are no pounds on Nantucket; they do better with gill-nets, and depend entirely on them.

Blue-fish are very destructive to drag-nets. The reason fish are so cheap is partly because they run in a great many from the provinces, and blue-fish generally follow the mackerel in price, and there are still many last year's mackerel on hand. Where we used to catch five or six hundred barrels of blue-fish in a season, off Great Point, we cannot now catch a barrel. As soon as the harbor is strung with nets the blue-fish leave. All fish have their homes, and a class of fish will make Great Point Rip their home if not driven away. The fish strike our shores to the westward, the herring coming first, then the mackerel, the blue-fish, and scup, and all coast along down eastward.

Question. What remedy ought to be applied to make the fish more plenty?

Mr. WINSLOW. Take the seines out directly; I do not want a net in the waters in any shape or form. If you want to save the fish, you must take the nets out. Any man who has observed, will say that the fish have depreciated very much in the last fifteen years.

The principal food of blue-fish generally is menhaden and squid. They can get menhaden or mackerel all the season through. Sometimes they will leave our shores for a few days and go off south of the island, and when they come back they will be full of mackerel. I never saw any cod-fish in them. They will eat flat-fish from the bottom. The menhaden are very scarce now, and I think we shall lose them, too, very soon, because they are using them up for oil. In this month, and

from the 20th of June, the ocean used to appear to be literally covered with menhaden. Now there are not a quarter as many as there used to be. People think they are plenty because, by using a purse-net one or two hundred fathoms long, they can purse several hundred barrels at a haul. Menhaden spawn in all the little bays as they pass along the coast. They go into some rivers sometimes. I think they spawn early in the season. I have seen schools of young menhaden in the fall, but I do not recollect seeing any lately.

I think the scup spawn in some still places in our harbor. When we first catch them the spawn is very fine, and about the latter part of June they begin to lose the spawn. Scup feed on clams and muscles.

Mr. GEORGE F. DUNHAM. I have stopped at anchor over night in two fathoms water, and in the morning have found scup-spawn sticking to my rope. Herring spawn in the grass. I never found a scup in a blue-fish nor an eel. Menhaden and squid are their principal food.

Mr. WINSLOW. Sea-clams were not here until about three years ago. I first observed them by seeing the ducks over them. Four years ago, perhaps, there was a bed three miles long of little ones, about a quarter of an inch long, and the ducks found them and fed on them. The second year, also, the ducks came, but the clams were pretty large for them to swallow, and the third year they did not come.

Mr. DUNHAM. It is not the scup they catch that makes them so scarce; it is the spawn they kill. I have caught spawning scup and have sold the spawn—quarts and quarts. Scup bite here when they first come; blue-fish will not.

Captain GARDNER. Have been on the south shore of the island eight years; have never caught any scup there. I catch codfish, haddock, pollock, halibut, and plaice, which looks like a halibut a good deal. The plaice-fish weigh sometimes twenty pounds. They are as good a fish as the halibut. Flat-fish are much more scarce than they used to be a few years ago.

I catch a good many dog-fish. They are on our shoals. I went off the 6th of June and caught them on the 10th. In six weeks I have caught about thirteen hundred. They grow there four feet long; will average three feet. I have caught but few blue-fish, and those when fishing for cod-fish on the bottom. I do not think the blue-fish stop there at all. In the fall of the year I have no doubt there are many mackerel about there, for you see fowl and fin-backs, porpoises and gannets, and I think they are after mackerel.

Mr. DUNHAM. In the deep holes out here in the pond, I used to go with my boat and throw a stone overboard to give the scup a start, and then I would throw my dog over, and so I would follow, and drive them up to the shore and clear out of the water. They would spring out on the bank, and I have caught five hundred at a time in that way.

Mr. MACY. Within ten years I have seen boys go to the wharf and get scup, as many as they wanted, but for the last five years we get them only at Long Hill.

HYANNIS, MASSACHUSETTS, *June* 29, 1871.

Captain ALMORAN HALLET:

I have been fishing off the coast here for twenty years. The number of fish has decreased very much, and I think the decrease is due to the pounds. It is not for the want of proper food, for there are a great many shell-fish and muscles here, and the fish that we catch are full of

them. There is as much food for the fishes here now as there was twenty years ago. We never used to catch the sea-clams as much as we do now; they are taken with rakes for the market; they are taken in water from six to twelve feet deep.

Blue-fish are much more scarce here than they have been. I do not know where they spawn.

Scup are not a fourth as plenty as last year. I think they spawn somewhere in the Vineyard Sound; they used to spawn in this bay; twenty years ago you could see schools of the young in the fall, all about in the bay; they have not been seen so for four or five years. We begin to catch scup usually about the 10th of May. They could not be caught with traps any earlier than they are caught with hooks. When we catch them they are full of spawn. I caught two this spring that weighed 7½ pounds; I never caught any larger.

The matter of fishing is one of great importance to the people here; many get their living by it. In these places, Barnstable and Osterville, there are one hundred boats employed in the business of fishing, which would represent more than a hundred families. If the fishing is broken up, the people will have to go to sea or to work on the land. Most of them are old men, and, like myself, have no trade. I do not know what else I could do. The biggest part of the men who have been in the fishing business have no trade, and must fish or go to sea. It would affect the sail and boat making business, too, if the fishing were to fail; they cannot get half price for their boats.

The business is falling off, year after year, worse and worse, for six or eight years. I have been off here and in the course of a single forenoon caught 800 scup that would weigh five or six hundred pounds; but now I have not caught fifty pounds in this whole spring, and I have been out every day since the 1st of May. I have not averaged a pound of scup a day, fishing right on the same ground where I used to take so many. Smacks that used to come in and get five or six hundred pounds in a day, do not come at all now. I lay it to the pounds.

The diminution began about ten years ago, and there has been a falling off every year; so that I have not got more than a quarter as many this year as last; and it is the same with others.

There are no pounds right about here. The fish come here a fortnight earlier than at Nantucket. Scup and bass follow the shore. They used to catch scup near Saughkonet so plenty that they sold them for ninepence a barrel. They are never caught east of Sandy Point.

We always regarded this as the great breeding-ground for scup; they always had spawn in them when they came, but in October they had no spawn in them.

They used to come from New London, and eighteen boats would load a smack in a day.

We got two cents a pound for scup this year, and two now for blue-fish. Last year we got two to the 1st of July, and then three. Ice was generally scarce last year, and, as we had ice, we got better prices than some others.

When they were as plenty as at one time we could not give them away.

If the pounds stop the fish from coming along we shall not have any to catch.

There is no need of pounds to get bait for mackerel and cod-fishermen, because we can get all the bait that is wanted with purse-nets, the same as has been done before.

Menhaden are scarce here now. They spawn here in these waters.

I have seen plenty of little ones here in September and October. We do not get any mackerel here with the hook.

We used to get a great many striped bass in the bay here in the month of May. They do not stay here in the winter, and are only caught in May and June, and then again in September.

It is not true that the more pounds there are the more fish; the more pounds the less fish. There is not a boat fisherman in Hyannis but knows that pounds are the cause of the fish being so scarce here. I think they catch our scup about Saughkonet, in Rhode Island. They get them sooner at Saughkonet than at Vineyard Sound, and about a week earlier at Waquoit than here.

This year the scup came here first, on the 22d day of April, which was about two weeks earlier than usual.

We send most of the fish caught here away to market. The blue-fish are sent to New York. Many people around here have not had a scup this year.

A few Spanish mackerel are caught here in the fall in nets; they are never caught with the hook. None were caught until within five or six years.

There are no skip-jacks here. I have not seen any stingarees here

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HYANNIS, MASSACHUSETTS, *June* 29, 1871.

ALEXANDER CROWELL:

The fishing business has gone down so that it is not more than one-fourth of what it was four years ago. The pounds take the whole schools. They are killing all the spawn and will thus kill the breed. I am quite sure it is the pounds; it is plain enough. The fish all come here from the west through Vineyard Sound. Six or seven years ago, the New London smacks would come here and eighteen men would load a vessel every day, carrying about five thousand pounds—about one thousand five hundred fish. They have now given up the business, they get so few.

The scup used to stay till the last of July and then go away, and come again in September; but the big ones did not come again till the next spring.

The blue-fish came here about thirty-five years ago. We catch sea-bass here, but very few compared with what we used to do. The pogies have gone also. We get very few Spanish mackerel. The menhaden are also more scarce. The blue-fish feed on menhaden.

The scup spawned in the Sound here.

HYANNIS, MASSACHUSETTS, *June* 29, 1871.

JOSEPH G. LORING:

The number of fish has decreased here very much within the last ten years, since I first began to deal in them. The fish taken here are principally caught with the hook; never taken in pounds. We think that the pounds keep the fish from the shores; we do not get fish in-shore as we used to. Pretty soon after the pounds were first put down we began to notice a decrease in the fish, and whether the pounds break up the schools or what the trouble is, we do not know; but we know the fish are much more scarce than they used to be.

Scup we used to get in the Bay, generally full of spawn in the spring, and in old times we could get them till October; but now it would be about impossible for a man to get half a dozen, where ten years ago he could get two or three hundred. They have become less and less every year. This year, as compared with last, I do not think there is more than half a crop. For the last six years they have grown less and less.

We think the pounds cause the trouble. We think these grounds are the place for the fish to spawn. This seems to be the home of the scup, on this sound here. They are never caught in Barnstable Harbor; but the pounds off that harbor get bass and blue-fish. The general impression about here is that the pounds injure the fishing; and if the question of having pounds or not was put to vote in this county, seven-eighths of the people would vote against them.

Shad used to be taken in the pounds, but for some years I have not seen a box of shad on the shore.

There are not more than one-third as many persons employed in connection with the fisheries on the shore as there were five years ago. Those who have lost their business of fishing have gone away. There are three places in the village of Hyannis where the fishermen bring in their fish to be sent to New York to market; and they now bring in at each place about a ton a day. At each place about sixteen boats are employed. We give two cents a pound this year, but vary some according to the market. We used to give three and four cents a pound.

HYANNIS, *September* 18, 1871.

CHARLES H. WALLEY:

I have always lived here, and have followed fishing the last three years, with a boat. Blue-fish have not been caught more than half as plenty this year as last.

The highest price paid by dealers here for blue-fish was two cents a pound, unless for a few days they may have paid three cents.

Very few blue-fish are caught now; only one or two in a day.

Of bottom-fish (scup, tautog, and bass) they get from twenty-five to seventy-five pounds a day, in good weather.

Very few rock-bass are caught here.

Scup have not been near as plenty this year as last. June is the best time for scup, but this season there were very few.

TIMOTHY CROCKER, (a dealer in fish:)

Blue-fish have not fallen off in number as much as other fish. I think the pounds have had a tendency to make fish scarce; also traps and seines. I do not think blue-fish will trouble scup or rock-bass very much. We used to find menhaden and squid in the blue-fish in the spring.

Scup and sea-bass have fallen off very much within the last five years. I have not seen any more show of little scup this year than last.

Four years ago Mr. Loring and I loaded a vessel with sea-bass in one day, and had fifty barrels apiece to head-up and send to New York, besides. They were all taken with the hook.

I have had about twelve regular boats fishing for me this summer. I think they averaged about one hundred pounds a day during the season. One day I had 9,600 pounds brought in. I had more fish in 1869 on

account of being in company with another man who was doing something in the business. My average this year was about fifteen boats. One or two of them had two men in them.

Account of Mr. Timothy Crocker's business for the following years:

	Boxes.	Barrels.
For 1867	180	410
For 1868	174	382
For 1869	260	394
For 1870	170	215
For 1871	190	172
Total	974	1,573

Each box contained 300 pounds, and each barrel 150 pounds.

974 boxes	292,200 pounds.
1,573 barrels	235,950 pounds.
Total	538,150 pounds.
Supposing each fish weighs 5 pounds	5)538,150 pounds.
	107,630 fish.

J. G. LORING, (a dealer in fish:)

I had as many as sixteen or eighteen men employed this year; on an average about fourteen men; and the same for the last four or five years.

Scup and bass have been falling off every year for many years. Scup were never known on the east side of Cape Cod. With twenty-five boats we loaded a vessel one Saturday with big sea-bass. We got one and three-quarter cents a pound for them. The next year we got dispatches not to ship sea-bass and scup; they would not pay the freight.

Scup are not caught on the south side of the Vineyard. This is their natural cruising-ground. I do not think the scup go back in schools in the fall, but go just as it happens.

Spanish mackerel are rather falling off here this year. Three years ago they were most plenty. The first I ever saw was five years ago; but they were much more plenty the next year.

Squeteague are increasing here. They are caught where blue-fish are caught, drailing, and while fishing for blue-fish.

Account of J. G. Loring's shipments of fish for the following years:

	Barrels.
For 1866	552
For 1867	612
For 1869	694
For 1870	799
For 1871	567
Total	3,224

In 1866 twelve men were employed in fishing, and in subsequent years an average of fifteen men. The barrels contained 150 pounds of fish each.

[Reducing the above to pounds, there are found to be 483,600; and on the supposition that each fish weighs 5 pounds, there are 96,720 fish.]

Captain HETSEL HANDY:

You may call on anybody on Cape Cod, and you will find he was brought up to go to sea. There was nothing else for us. Steam has now taken the lead; and we must either take our families and go away, or else something must be done to enable us to live here. With a weir two or three men can catch more fish than all the other fishers on the coast. They ship off a hundred tons a day to New York, and they must be used up or spoil; whereas if they were caught with a hook and taken care of they would be good, healthy food for men to eat.

I don't know of any other way than to stop the pounds wholly. The pound-men will not be satisfied with taking up their nets two days in a week. The decrease of fish this year is 50 per cent. Fishermen who have been in my employ two years say they used to fetch in five hundred pounds of fish in a day and get a cent a pound for them. Now they go out and try from 2 o'clock in the morning, and come in at night with one or two fish; and some come with no fish at all. Twenty boats will not bring in more than two barrels. It seems to me the men have not made seventy-five cents a day; and they get up at 1 or 2 o'clock in the morning and are off at the "Bishop's," or some other fishing-ground outside, when day breaks.

We have paid two cents a pound for blue-fish, and have lost a quarter of a cent a pound.

I ship to Baker & Co., J. W. Miller & Co., and Crocker & Haley. I sell some, too. They don't lose anything. I sent two boxes of blue-fish at the same time; for one I got $12, and for the other a dollar, or less.

I have heard men solemnly swear they would destroy the pounds and everything connected with them that they could lay their hands on before they would submit to have the maintenance of their families thus taken away.

I think Government does not do what it should to protect the fishermen in their trials to get a living.

I have handed a man a quarter of a dollar, and even less, for his day's work in fishing; and they would say their arms felt as though they would drop off. It is a hard case anyway. What are they going to do next winter? If they are well they may keep out of the poor-house.

There are a good many mackerel-fishermen who go from here.

There are two weirs in Harwick; four this side of Monomoy.

Blue-fish like squid very much; they drive eels clear up the creeks. The first blue-fish caught are caught at the bottom, while fishing for scup. I never saw any scup in blue-fish. I have found a whole menhaden in the stomach of a blue-fish.

Gill-nets never ought to be set in these waters. The fish die in them and drop around, and that frightens away all that kind of fish. Two or three men about here have had weirs for thirty years; and they say that if they cut up a shark and strew the pieces around they are not troubled with sharks any more.

If the work is given up to the pound-men, I do not know what will become of the fishermen. It seems as if they cannot exist together—the rich or the poor man must have it.

I think 100,000 blue-fish have been taken about Hyannis this year.

I have not seen a large scup in two years. I shipped some of the handsomest blue-fish I ever saw to New York. I gave a man $20 for a thousand pounds, and I sent them in boxes, for which I got $6 33 a box, containing three hundred pounds!

The blue-fish are not so plenty as they were last year.

I have had a single man catch 618 pounds in a day, for which I paid $12 36.

I have been told by men that saw it that this year there were twenty carts loaded with fish at Saughkonet to be carried off for manure. The fish had gone there to spawn, and after spawning, if not caught, they would go eastward. All the fish caught there are those that go there to spawn. They cannot be caught there after they have spawned.

I paid to Eleazer Baker for six days' fishing last year $59. He caught scup, tautog, and a few bass. I don't think he has made half the money this year that he did last.

Seines scare blue-fish all away.

HENRY LUMBERT, (Centreville, near Hyannis:)

I was once interested in a trap, but use a net altogether now. We used to catch menhaden mostly. I have shipped this year about 110 boxes and 120 barrels from four boats. They were pretty much all blue-fish.

I have not sent ten barrels of scup. We got about fifty Spanish mackerel in all. We caught one the 23d of July this year, and last year the 15th of July. We took the last we caught about the last of August. Most of the Spanish mackerel were sent to the Parker House, Boston. We got from twenty cents to a dollar a pound.

No fish are as plenty as they were a few years ago. I suppose the traps and pounds, and their being caught up, makes them scarce. Eleven years ago we could catch any quantity; but we were not much better off than now, for we could not sell them. We got from $15 to $20 a box of 300 pounds; this year they will not average over $6 a box. Blue-fish are so destructive I have told the fishermen that Government ought to pay a bounty of a cent a head for every blue-fish. We drive blue-fish pretty hard here.

Spanish mackerel were first caught here five years ago. I caught the first, and sold what I caught in two nets for fifty cents a pound.

I think the schools of fish are broken up at Saughkonet. We have caught less fish this year than ever.

We used to sell to smacks eleven years ago, and got a cent a pound; we never shipped any then. But we salted fish then. I salted fish for several years. Blue-fish are not salted much now here.

The prices were better this year than they were two years ago, but not so good as last year; that was because ice was scarce last year. There are too many fish caught and sent to New York.

WOOD'S HOLE, MASSACHUSETTS, *July* 6, 1871.

Captain EDWARDS:

SCUP.*

I have lived in this place thirty-five years, and have followed fishing more or less since I was a boy.

* The numbers are those corresponding to the queries on page 3 of the present report.

2. Not found here except from May till October, varying a little as to the time of coming and going, according to the season.

3. They used to be more plenty in June than any other time, and that is about the time when scup first take the hook.

4. No more abundant.

5. Diminished, so that there is scarcely one scup where there were a hundred ten years ago.

6. Have been caught beyond the increase, in nets.

8. Three pounds; the average, including spring and summer fish, about three-fourths of a pound. The large scup come first, and the little ones follow them.

10. The female is the largest; but probably there is no difference except on account of the spawn.

11. They come from the southwest, following the shore from Watch Hill or Point Judith, into Buzzard's Bay, generally swimming two or three fathoms under water.

14. A few scattering fish are caught about the 10th of May; this year a few were caught in April, the season being earlier than usual.

15. They leave in October, and by degrees; once in a while one is caught as late as the first of November

16. They come regularly, with a decrease in numbers from year to year.

17. The larger fish come first generally.

18. Both together; they spawn within five to eight weeks after they first appear.

19. Neither will take the hook; they appear blind at first.

21. Swim low; never seen by the ripple on the water.

22. They come in-shore on the flood-tide, and off with the ebb. In former times I have waded in and driven hundreds ashore and killed them with nothing but a stick.

23. I have never known it to happen.

25. No.

29. The different sizes come together.

30. Gravelly bottom; rather in currents.

31. Found at all depths, to ten fathoms.

33. No; not after spawning.

34. No.

35. They feed on shell-fish.

36. Not at all, except that the spawn may be eaten.

37. Crabs, and other small shell-fish.

38. No.

39. Not a great amount; not voracious.

40. Not in breeding-time; but usually in the latter part of the season there is a difference in color in both sexes, according to the color of the feeding-ground. On light, sandy bottom they are invariably light-colored; and on rocky bottom, dark.

41. None.

42. By catching the fish while going to their spawning-ground.

46. They always spawn in grass, and prefer some current caused by the natural ebb and flow of the tide.

50. Near the bottom.

51. Yellowish.

63. The parent fish does not devour them; but eels and other fish eat the spawn.

64. Very few now seen anywhere.

68. No.

70. No.
71. With the hook; mostly by nets and pounds. Clam and squid are the best bait for the hook.
73. Taken in nets most in the month of June; with the hook through the summer.
74. A man may now catch four, or he may catch a dozen in a day; but at any rate, so few that no estimate can be made.
76. They are caught two or three weeks earlier in nets than with the hook.
77. The flood-tide is best for fishing.
78. Sent to New York and Philadelphia.
79. Good; best when newly caught.
81. Very extensively.
82. Probably none are now salted, since so scarce.
83. Not used for manure now. It was formerly; but is now too scarce.

BLUE-FISH.

They come about the 1st of June and remain till the middle of October; most abundant in June.
4. There are more pounds of blue-fish caught now than of any other kind.
5. Diminished.
6. I think they have extended their cruising-ground to the east, as they do not find the bait that they used to.
7. Diminished more than half; probably three-fourths, so that there is not more than one-fourth as many.
8. Sixteen pounds; the average of the first run, which is the largest, seven pounds; the later runs will not average over two and a half pounds.
10. I think not.
11. They seem to come more directly from the sea, and from the eastward. They are caught at Watch Hill before they are found here. Thousands of them go outside of Nantucket, following the mackerel and menhaden.
12. No particular route.
14. They follow along one after another, the largest coming first, generally following near the shore, and come in from all directions. Most plenty about the middle of June.
15. At different times, never breaking up the schools.
16. Rather regular; but constantly decreasing in numbers.
17. The largest come first and leave last.
18. They have no spawn when here.
19. They always will take the hook if they have the right kind of bait—any kind of fish—a good piece of fresh herring or menhaden is good enough for them.
21. Swim both high and low; they show themselves at the surface, and attac[illegible] birds.
23. No.
24. No.
30. In currents; generally on sandy bottom where the water is not deep, on what are called "rips."
31. From two to five fathoms.
32. Not very warm.
33. They keep together in this vicinity.

34. The horse-mackerel* and the porpoise; nothing else troubles them.
35. Voraciously on most kinds of small fish, squid, herring, menhaden, smelt, &c.
36. Very slightly.
68. No.
70. No.
71. In nets, pounds, and with hooks; the best bait being menhaden, herring, or squid.
72. Pounds and gill-nets.
73. Taken in nets from the 1st of June till the middle of October, and during the same time with the hook.
74. Not a regular business here.
76. No.
77. Most on the flood-tide.
78. Sent to New Haven, New York, and Boston, and used here more or less.
79. Good when fresh; and when salted equal to No. 1 mackerel.
80. Only a short time.
82. Salted to a considerable extent.
83. No.

TAUTOG.

2. From first of May to the middle of November. Most abundant in May and October. In the summer season they are in the grass, and do not bite well.
4. Rather more abundant than other fish.
5. Decreased some; not so much as other fish. They are not exposed so much to nets, as they do not make any long journeys.
7. Nearly one-fourth.
8. One remarkably large, twenty-two pounds; generally the largest, twelve pounds; and the average, not over two pounds.
9. I once tried an experiment with one that weighed half a pound, putting him into a lobster-car, where he had plenty of room and plenty of food, there being three hundred pounds of living lobsters with him. He was kept in the car from the 1st of May to the end of October, six months, when he had destroyed all the lobsters, and weighed three-quarters of a pound! Thirty-two years ago I put some thousands of small tautog in the pond, some of which staid there five years, but none were caught weighing over two and a half pounds, and they had one year's growth, at least, when put in the pond.
10. They do; the female is shorter and thicker than the male, and generally the largest.
11. They come directly in from the sea.
13. They go out to the mouth of the sound, far enough to prevent being chilled and frozen to death, in water from fourteen to twenty fathoms in depth.
14. They do not come or go in schools, and are first seen among the rocks. The first fish are the largest.
16. They appear regularly, never failing unless killed by the frost.
18. They spawn in June.
19. They will not bite when they first come in.
20. Within ten days they will take the hook.
21. They swim low, on the bottom nearly.

* This is the Tunny, (*Orcynus secundidorsalis.*)

22. They work in-shore on the flood, coming among rocks after crabs.
23. Yes.
29. They are found all together.
30. They prefer a current, from one to four fathoms in depth, among rocks; found sometimes much deeper.
33. They do not travel in schools.
37. Shell-fish entirely, muscles, crabs, lobsters, &c.
41. They usually go among the grass for spawning.
42. No.
46. In June, in bays and harbors, among grass.
50. Near the bottom.
63. Eels probably destroy the spawn as much as anything.
64. Usually in the grass, near where they are spawned.
68. Very cold winters kill them sometimes, so that they are found on the shore outside frozen, on Noman's Land and Gay Head. This has happened twice in ten years. Thousands have been destroyed in this way. They will freeze under water, the inside being a bunch of ice.
71. Caught with nets in the spring, and then with the hook. The hermit crab is preferred by them; crabs and lobsters are next best.
76. They are taken in nets from the 1st of May through the summer; with hooks from the middle of May. They are most plentiful in May.
74. Fifty pounds a day, with the hook.
77. Caught more on the flood-tide.
78. New York is the principal market.
79. Good, fresh; not usually salted. Retains its excellence as a fresh fish as long as any fish, after being caught.
81. All that can be caught.
84. Highest price by the quantity in New York, this year, twelve cents a pound. That is as much as they ever brought, and was for a lot taken early.

SQUETEAGUE.

Come about the middle of June, and remain till about October. Generally caught in July.
5. There have been more for the last four years than before, but not so many this year as last. They are not very abundant. Have increased within the last ten years.
7. There were none ten years ago.
8. Six pounds; average three pounds.
11. They come from the sea, and straggle along the coast looking after food. They are not considered a running fish. I am confident they do not spawn here.
14. They make their first appearance in June. There is no difference in the size of those that come first from that of those that come last.
15. They leave by degrees, in small bodies.
16. Not regular.
17. The same.
18. No spawn seen in them.
19. They are an uncertain fish about biting, anyway. They are caught in nets and traps before any are caught with the hook.
20. Have not known any to be caught with hook within three weeks of their arriving.
21. Swim anywhere, at bottom or top, just where the bait is. They attract birds, the same as the blue-fish when they come under a school of small fish.
22. They will venture into shallow water on the flood-tide.

23. No.
30. On the sand and about rocks, both; generally where there is some current, and where the small fish gather.
31. From one fathom to six. Often found in the grass where the water is low.
34. None that I know of.
36. None.
37. Small squid and all kinds of small fish.
71. With hooks, drag-nets, and pounds. For bait white shiners are used; sometimes a piece of menhaden.
76. Taken in nets first.
79. Moderately good.
81. Quite extensively.
83. No.
84. Average price is low; one and one-half cents a pound here a week ago.
86. New York.

MENHADEN.

Come in May, and remain till the middle of October; generally most early in the season.
5. Decreased very much; very few now, comparatively.
6. They are caught in nets.
7. Scarcely one now to ten thousand formerly.
8. Less than a pound.
11. Come from the west; pass by now. They formerly remained in the harbor all summer.
12. They go off to sea by way of the mouth of the sound and bay.
15. They leave in small bodies; they run together all the time.
16. Regular decrease for ten years; no increase at any portion of that time.
17. No difference.
18. Not one in twenty has any spawn. I do not think they spawn at any particular season; the first caught is as likely to have spawn as any. Those that stay in the summer run up where the water is brackish and remain; and in New Bedford River there are thousands of young ones in the fall; the same is true at Mattapoisett, Wareham, and Monument River.
21. Generally swim high; make a ripple, but do not attract birds.
29. Half-grown ones are found with the old ones. I do not think they come here when only one year old.
31. Four fathoms.
33. They keep together in schools.
34. Almost all fish prey upon them.
35. None; they eat bait or any small substance floating in the water. They get very fat; but I never found any small fish in their stomachs.
36. Very greatly.
37. Cannot give it a name.
39. I think not much.
42. The breeding-fish are caught in nets.
46. Nobody has found out; it is supposed they spawn at all seasons.
63. All kinds of fish eat the young; have even more enemies than when full-grown.
64. No, not now.
67. No.
68. No.

71. In sweep and purse nets and in pounds; not with lines.

78. Used for manure, oil, and mackerel-bait.

84. Highest price, $1 50 a barrel for mackerel-bait; fifty cents at the guano works. About the same as former prices.

86. Here, for fish-bait, and to the guano-works. About two thousand barrels were sold to fishermen, for $1 50 a barrel, for bait. Scarcely a quarter of those caught about Buzzard's Bay go to the fishermen, but go for oil and guano.

HERRING.

There have been as many herring the past year as for many years; more abundant just about here than for two or three years before. They come about the first of March and stay till June. The young ones strike in about the 15th to the 20th of May, and in a pleasant afternoon there will be from one to three acres very lively with half-grown herring, and those not much larger than the finger; among these a few old ones that seemed to be their guides. The little ones never go up the rivers. They are caught with nets when running up creeks. Good, fresh; most of them are salted. They were formerly sold early in the spring to the George's fishermen for bait. This year they brought about forty cents a hundred; generally average seventy-five cents a hundred. Most are carried to New Bedford to market. I seined up the herring for bait, at the pond near my house, for three years in succession, and in that time used them all up, so that none come there now.

WOOD'S HOLE, *June* 19, 1871.

Captain THOMAS HINCKLEY, JR:

On the 19th of April of the present year we laid our net and got 25 tautog. The pounds were put down about the middle of April. The herring or alewives did come into Buzzard's Bay as soon as into the Vineyard Sound. I think they come direct from the sea, and do not run along the coast. They are caught in February off the coast outside of the Vineyard. The Georges fishermen get their bait of English herring down east, before the alewives come here. The English herring come here about the 1st of May, but are not plenty then. Last year we caught considerable many in the bay, but this year not any. There are many in the bay, and on the 1st of December there are many of the English herring there.

The pounds are down and in operation in Buzzard's Bay, about the 20th of April. Alewives are the first fish we catch. The menhaden this year were out of season—earlier than common. They struck in Buzzard's Bay, and we caught a few the 20th day of April. It was something remarkable, never known before. I think some had spawn in them then; about the 1st of May they had. They should not strike good until about the 10th of May.

SCUP.

2. No; only during the summer months. They make their appearance about the 15th of May, and remain until about the middle of October. In about a week after they come in they are most abundant. They leave gradually, much more slowly than they come in.

4. They are the most abundant of any fish caught with the hook.

5. It is decidedly scarcer than it used to be, and it is becoming more and more scarce. You catch fewer in the pounds and fewer with the hook. I do not mean to say you catch less scup this year than last year. The diminution cannot be noticed so much from one year to another, but during a period of five years. This year is remarkable for the nets having taken an immense number of small scup, about half grown, except the little ones, of which we make no account. It is unusual to have so many half-grown ones come in. There are little ones, that is, very much smaller ones than we have got here for many years. These run with the big fish, and are taken with them. The big fish seem to pilot them in.

8. The largest scup I ever saw was about a foot long—would weigh four pounds, I think; though I never measured or weighed them exactly. The big scup come first every year. We find nothing but large ones, the first that we get; the next school, four or five days later, would be smaller, half grown, weighing from half to three-quarters of a pound.

9. I think it takes scup three years to grow. I think the small ones we get this year were spawned last year, and that the little ones were two years old. I think I can distinguish about three sizes every year. I never saw any spawn in the middle-sized ones. The last year's scup will, most of them, go through a two-inch mesh; the middle size will not. Scup will only grow to about such a size, when they stop growing.

11. They tell me that they catch scup at Montauk Point before they get them in Gardner's Bay. They get them at Watch Hill before they do at Saughkonnet; first at Montauk, then at Watch Hill. I cannot tell how long a time between Montauk and Saughkonnet. They used to run up into Narragansett Bay before they reached Saughkonnet, around by Rhode Island Bay; and even sea-bass went the same way.

After striking the main land they follow closely around the shore, in about eighteen feet of water, so deep that you cannot see them in a school. If the pounds are set in less than eighteen feet of water we do not catch the scup. They are caught about one day sooner at North Falmouth than at Wood's Hole. They are generally found in Vineyard Sound sooner than in Buzzard's Bay. This year they caught them at Menemsha Bight three or four days before we did in the bay, and two or three days earlier than at Saughkonnet. I do not think there is any difference in the time of getting them on the two sides of Vineyard Sound. I think those that come into Buzzard's Bay come out again into Vineyard Sound; otherwise the bay would be full. I do not know that there was any more protection in Buzzard's Bay this year than the year before.

5. I do not think the little scup are as plenty as they were ten years ago; but there were more this year than last year.

46. I think that the scup that come into the sound go to Hyannis to breed.

7. In Waquoit Harbor they used to get any quantity of scup; they were large and fat, because they lived on clams. Since the pound was set there they have not caught any scup with the hook in the harbor. The pound is on the west side of the harbor.

12. I think they return the same way that they came, most of them; others go right out to sea.

15. I do not think there is the same regularity in leaving that there is in coming in; they do not school as much in going out. In the fall of the year, when scup leave the ponds, they will school up and go together. All sizes go out together.

13. I do not know where they spend the winter; they are never seen here then.

14. In the spring there are several schools. Take the biggest part of the time the large scup come first and have three or four days' running, then the middle sized ones, and then the smallest ones. Between the periods there is a time when we catch only a few. The large ones are caught only four or five days, and little ones about the same length of time.

2. The scup generally strike about the 25th of May, and we get them up to the 20th of June. There is no use in fishing after that. About the 15th of June we get the most scup; this year it was about the 1st of June, the season being two weeks earlier.

I think not more than one-third of the scup that come into the bay in the spring would stay there if there were no pounds. I think we do not catch but a few of the scup that would keep in Buzzard's Bay. I think we catch somebody else's scup, and but a few of our own. It is only when fish are running that we can catch them in pounds. Where they belong, they will not run into pounds. In Clark's Cove there are two or three pounds, and there is any quantity of menhaden there; but they cannot catch any at all in the pounds. Those menhaden belong there; they come there to spawn.

18. The sexes generally come in together. The female dog-fish comes in first. When the scup first come in the spawn is not grown; about the 15th of June it is pretty full.

20. When they first come in they will not bite the hook. Neither will any kind of fish; none of those caught in the pounds will bite the hook. Even if as plenty as they used to be, scup would not bite the hook until about the 20th of June; and I think they would bite about the same time all along the coast.

21. The gulls do not follow them at all. I think they swim within from two and a half to four feet of the bottom; not nearer the bottom than a foot, nor higher than about four feet from it.

22. I do not think the tide makes much difference about their coming in.

19. I do not think you can catch many scup with the hook when spawning. Sea-bass and cod-fish sometimes bite when spawning.

23. Many fish are caught in the pounds when spawning, the mackerel most plentiful; tautog and scup also. The spawn is often seen on the nets.

25. They do not run into fresh water, only into shoal water.

29. We find small and large scup coming in together.

30. On a sandy bottom, not necessarily rocks, excepting in the fall of the year, when they will come on the rocks somewhat. It does not make much difference as to the water being still or running.

31. They are caught in water about fifteen feet and over.

32. You get them in the sound just as well as in the bay.

33. I think they school a little in going out, but not so much as when coming in.

34. I do not think the blue-fish trouble scup any to speak of; nor sharks either, as they are so spiny they will not take them when they can get other fish.

37. They feed mostly on sea-clams. I have seen them root down into the sand in summer for clams. Sometimes they feed on other shell-fish and small muscles.

38. Along the shore where it is sandy you can see where they have made a little hole digging for clams.

40. I do not think there is any difference in color when breeding. On a rocky bottom they are darker and more barred than elsewhere.

37. They usually go to a place with rocky bottom to get some kind of crabs or something of the sort.

47. I do not think the small scup are the males accompanying the big females, because in the large scup you find spawn, but in the middle-sized ones you do not have any show of that sort. The breeding females are a little larger than the breeding males—simply swelled out more.

45. I do not know what becomes of the spawn when laid, but I think it sticks to the bottom; because if it floated at the top I should have seen it when scup were plenty. All the spawn that we find in the pounds is in the bottom of the bowl—none on the sides.

47. I think they spawn in the school.

63. I do not know of any; I do not know what the small fish feed on.

68. I never knew any sort of disease in scup.

71. Salt menhaden is said to be about the best bait, and salt clams. We generally use soft clams for scup.

72. In a seine, mostly in the fall. Sometimes in a floating net.

74. When most plenty, the average catch with a hook and line would be eight or nine hundred a day. They would bite about as fast as you could put the bait in, and you pulled them in two at a time.

77. Scup, and all fish in the sound, bite best on the slack of the tide, and not when it is running in full strength. In the bay it does not make so much difference.

86. New York and Philadelphia.

79. It is good salted; people used to salt them for winter.

80. They are best when first caught; but they eat them in New York when they have been caught a fortnight.

83. Never sold in any quantity to the guano-works; when used for manure they are put directly on the land. Never used for oil.

84. Highest price at wholesale this year was six cents a pound; the lowest, two cents. The price was less this year than last; not because more were sent to market, but because there were so many pounds down.

I think the fish-pounds are a curse to the country, but I don't believe in Rhode Island catching our fish. In 1860 there was but one fish-pound, that at Waquoit, and before that we used to catch scup at Saughkonnet, but after they had it down three or four years we did not begin to catch one-half the fish we did before. They used to come from Naushon to buy scup to put on the land, and then we tried to get a living by catching them, but as soon as they got pounds at Saughkonnet our fish were gone. There are not now one-hundredth part as many sea-bass as there used to be.

MENHADEN.

1. Known as pogee, here.

2. Some are found all summer; it probably breeds here.

3. They first appear at the westward. They strike Montauk Point, and follow along the coast exactly like the scup, but go rather more into the bays. They go in more shallow water; I have seen them in 12 feet. A school looks reddish. I have seen a school a mile wide and a mile and a half long. They frequently swim near the surface, and make a little disturbance that can be seen. The first school swims rather deep, but as they become more plenty they can be seen. They generally come in about the 10th of May; this year we got the first the 21st of April—about three weeks earlier than the average. We got about a

hundred barrels at once. But they strike off again for about a fortnight before they come regularly.

4. It is the most common fish on the coast, but is nowhere near so plenty as formerly.

5. They have diminished.

6. To pounds and purse-netting; and I think they run in deeper water this year.

7. There were not one-tenth as many caught this year as were caught last year, although there were a good many more pounds.

8. They run two different sizes; the largest, I think, are scarcely a foot long.

9. It takes them three years to grow.

10. You cannot tell the sexes apart, except by the spawn. They both spawn.

11. They come in like the scup, but hug the shore closer.

12. They go more to the westward than scup, and very nearly the same way they came.

13. I do not think that any stop here in the winter; they breed in salt-water.

16. They keep coming in thicker and faster till they get to the height, and then they go off again.

15. I think they go off in schools.

18. Both sexes come in together; they spawn about the 20th of May.

23. It does, when they are full.

19. They never bite the hook.

37. I think they live mostly on sand-fleas.

46. They spawn in shoal-water, in the latter part of May. We find young menhaden here in the fall.

21. Nearer the surface than any kind of fish I know.

34. All fish eat them. They make the best bait, because they are so oily.

36. I do not think the blue-fish could affect their abundance when they were so plenty as they were many years ago; but where we catch thousands and thousands of barrels it must make a difference.

37. When caught in the pounds they are traveling, and then we seldom find much food in fish. The fish we catch in pounds are not feeding, but are bound for their breeding-grounds.

40. No difference.

41. I think they spawn like alewives; the eggs not so large as those of herring.

71. Never with the hook; only with nets. They are taken with purse-nets throughout the season.

15. They disappear from the middle to the last of October.

75. The largest haul we ever made was 1,200 barrels; but I have known others to catch from 1,600 to 2,000 barrels.

86. Most of ours was sold to the mackerel and George's fishermen. If pounds were abolished, I do not know what the cod and mackerel fishermen would do for bait. It would not pay for all the pounds to be kept down for the purpose of catching cod and mackerel bait; if a few only were down it would pay. If the pounds were taken up by the 10th of May, the scup would not be affected here. The scup are not any appreciable profit of a pound every year, but on the whole they are. The demand for fish for bait lasts till about the 10th of June; after that they are sold to the oil-works, and the scrap goes into the guano.

84. We get about a cent apiece for them when they first come. Of the George's men we get half a cent apiece, and about seventy-five cents

a barrel of the mackerel fishermen. When sold for oil they bring about thirty cents a barrel. That is less than the former prices. Last year the price was fifty cents a barrel, and other prices in proportion. All kinds of fish brought a low price this year, because there were so many pounds running against each other. Last year we got $2 50 a barrel alongside the fish-pound; now we get only $2. We sell menhaden for oil to the guano-works here. They grind up about six hundred barrels a day.

MACKEREL.

2. We got some stragglers earlier; but about the 9th of May we calculated that the main body struck; that is, that they came in for good. They appeared about the same time in the sound and in the bay.

11. We caught them in the bay before they were caught at Wood's Hole. They always strike on the east side. All the fish we caught this spring had been up the bay and were coming out.

2. The mackerel run about ten days.

4. They were unusually plenty this year; I think from a half to a third more this year than before.

6. I do not know why they were more abundant this year.

11. In the fall they appear to go more out in the sea channel. They go east in the spring and westward in the fall. Last fall they were very plenty in the mouth of Vineyard Sound; were caught by the mackerel fishermen about the middle of October—large mackerel.

8. Those caught this spring were so large that a flour-barrel would hold only 140, without any ice, and laid on the head would go half round. They were not fat, but very poor. Sometimes we get smaller ones.

17. There was only one general run.

13. I do not know.

18. Both come in together. There is a scale over the eye, so that it looks very dim in the spring, and they will not bite.

73. It is only caught in nets in the spring; they will not then bite the hook.

23. Certainly, any quantity.

21. Near the surface.

37. Nothing but small fish.

34. The blue-fish eat them; all kinds of fish will eat them.

46. When we first catch them there is spawn in them, so ripe that it will run out, about the 10th of May. They could not have got far from these waters before spawning.

64. I have seen young mackerel here in the fall; they are found in the ponds, about five inches long. These, I think, were spawned in the spring.

52. I have no idea how many.

72. At sea they are caught in purse-nets.

71. They are caught with the hook outside by the 1st of May.

78. Highest price, ten cents a pound, and the lowest, three, by the quantity. It was less than last year.

86. New York and Boston.

TAUTOG.

2. When the winter is moderate I have seen them around all winter. In a hard winter many come ashore dead. They are more plenty in the summer.

71. A tautog will not bite when it is closed up.
4. Rather more plenty than scup.
5. Much less plenty than formerly.
8. Nine or ten pounds. The largest are caught in the spring, in the fish-pounds.
9. About three years in growing.
10. The female is more plump, and a shorter fish than the male.
11. We catch them at the head of the bay (west) before they are caught here; the best place is along the coast in Buzzard's Bay.
46. Among scattering rocks, or an eel-grass bottom. I have seen them come in where there was not more than four feet of water, and seen them spawn there. Sometimes two or three big fish are seen together. They come to spawn about the beginning of June, and stay about a fortnight.
52. The eggs are plenty, as large as those of the herring.
14. They come in in schools, the first mostly large fish.
2. They came this year on the 19th of April, and continued to come more plentifully till the 25th of April. This was about two weeks earlier than usual.
19. They will not bite when they first come in.
20. Sometimes they will bite just before they spawn; and then, again, right after. They almost always have one biting spell, just before spawning, from the middle to the last of May.
46. I do not think they drop their spawn until the 1st of June.
23. Sometimes the spawn runs out about the 1st of May, in the pound. That depends upon the number, whether they are crowded or not.
42. All the fish we take in pounds we take before they spawn; none of them afterwards.
21. Close to the bottom.
30. About rocks and eel-grass, whether spawning or harboring.
34. None that I know of.
37. Crabs, muscles, and barnacles; and I have caught them with little lobsters in them. The hermit-crab is the best bait for them, and sand-crabs.
86. New York, particularly.
82. No; it is not good.
83. Not used for manure.
84. The first caught brought $75 for four barrels, in New York. A barrel averages 180 pounds, without ice. The lowest price was one and a half cents a pound here.

SQUETEAGUE.

2. They are most plenty in August.
5. They are more plenty every year, while the blue-fish is getting scarce.
2. We found them first this year about the 1st of June.
6. They increase because the blue-fish diminish.
8. The largest about nine pounds.
9. They attain their growth in three years.
11. They come from the West.
17. There are different sizes, but not so great as in scup.
20. They are not caught here with the hook. In the bay they are caught, and will bite menhaden for bait.
37. I think they feed on the same as the striped-bass; that is, small fish.

BLUE-FISH.

2. Come in spring and leave in the fall. Come about the 20th of May.
21. Not so near the top as the menhaden. We only know they are here by first catching them in the pounds.
76. Caught in pounds before they bite the hook.
8. The larger ones caught first; weigh from five to eight pounds.
11. They go eastward. Come in from the sea, like mackerel. Most of the migrating fish come in like scup, some running nearer the shore than others.
23. Never saw one with a spawn in it.
64. There are many young ones about here.
5. They are decreasing; the decrease began within four or five years.
6. I think those taken in the pounds make much difference.
75. The largest haul I ever knew in a pound was about seven hundred.
20. They begin to take the hook about the 10th of June.
11. They scatter in summer, and school again when they run out.
37. Any fish that are swimming; they want something to chase. Never knew them to eat crabs or shell-fish. Never saw worms in their stomachs.
42. Know nothing about their spawning.
68. Never knew of any disease among them.
82. Yes; many are salted in the fall, as it is then fat.
83. Never used for manure.
84. Highest, eight cents a pound; and lowest, four. That is as much as the price last year. They were scarce this year.

SPANISH MACKEREL.

2. We began to catch them two years ago, about the 25th of July. Caught till the middle of September.
4. More plenty last year than the year before.
37. About the same as that of striped-bass.
8. Average about three pounds; never saw any of the very large ones, so called.

SEA-BASS.

2. First taken about the 1st of May. It is found here in the summer and in the winter.
5. Much scarcer than formerly.
8. Have caught them that weighed twelve pounds.
11. Much like scup; but do not school as much as scup.
75. Have caught three or four hundred in a pound at a time.
83. They used to put them on the land about Seconnet.
46. I think on the eel-grass bottom.
37. They catch some fish and eat crabs. Mackerels' intestines are the best bait; and the stomach of the menhaden is largely used as bait.
82. Never.
84. Highest price, six cents a pound, and the lowest, four. Have known the price as high as fifteen and eighteen cents.

STRIPED-BASS.

11. They go eastward, like scup and sea-bass.
2. First caught about the first of May.

46. Think they spawn out south, in the fall.
5. They are much diminished—almost exterminated.
71. We catch them with hooks in the spring; but they will not weigh half a pound apiece, and are all of the same size.
30. These little ones go into the ponds every year.
8. The largest weigh from three to seven pounds, and then the old sea-bass, as they are called, weigh from ten to eighty or ninety pounds.
17. There are three runs of striped-bass; the smallest coming the 1st of May, the second size about the 20th to the 25th, and the biggest about the 1st of July.
72. They will not go into pounds; or if they do they get out; except the small ones.
5. They are less plenty than formerly.
71. They begin to bite about the 10th of June.
30. The little ones go into fresh water; the larger ones never do.
2. I have known them here all winter. The little bass stay in the ponds until it is very hot, and then come out, and go in again when it is cooler. The large ones are caught in deep water.
37. Mostly they feed on brit—little fish. They will eat crabs, and a large one will eat herring or menhaden.
11. They go eastward in spring and westward in the fall.
84. The highest price this year was not over half a cent a pound. We caught none of the large ones.

COD-FISH.

72. With the hook; none in pounds, to speak of.
2. Last of March and first of April off Noman's Land. Come into the sound about the 10th of April; they stay till about the first of May.
11. I think those that come into the sound go west.

HERRING.

2. Caught in pounds about the 1st of April.
11. Bound eastward. When they run low they are traveling.
75. The largest haul last year was 13,000.
5. More plenty this year and last than for some years before.
6. I do not think it is from the planting on the coast. Perhaps it is because the blue-fish are gone. They were appreciably more abundant this year than last; and also last year than the year before.

WOOD'S HOLE, *September* 5, 1871.

Captain ISAIAH SPINDEL:

Captain Spindel is the manager of a fish-pound at the eastern extremity of Buzzard's Bay. They took scup first this year on the 27th of April. The pound was put down on the 12th, and the first fish were taken on the 14th. Herring and alewives were the first fish taken. Some English herring were caught with the rest, but not very plenty. They are easily distinguished from the alewives. I call them "blue-backs." They are the same as they catch down east in nets, and also in Cape Cod Bay. We got the English herring all the time we did alewives. I should say both were caught as late as the middle of May. We caught them most plenty about the last of April. Never caught over three thousand at a time. We sold them for bait; all the alewives

caught in spring go for bait. We could sell ten times as many, if we could get them, for bait. We sold a few at New Bedford. A few are salted by people here. They do not eat many fresh.

Menhaden come next. The first one we caught last year was on the 23d of April; and the first mackerel at the same time.

The mackerel and menhaden caught then were stragglers. Likely enough the next day we got two or three, and so on. About the 10th to the 15th of May was the best time for catching menhaden last year; this year they came on the 21st of April, when we caught a thousand. We caught a few stragglers before. I think we caught one or two about the middle of April. We brought them ashore and tried them for their fatness. The first that come are nearly as fat as they are in the fall of the year.

The English herring have spawn in them when we first catch them. The alewives and menhaden have some. I never saw much spawn in menhaden any time; not so much as in alewives.

I have seen blue-fish and squeteague throw the food out of their stomachs when caught. I think the blue-fish fill their stomachs and then empty them just for the fun of the thing, so as to catch more fish I have seen them go into a school of menhaden and catch some and throw them up again, and then go in again. I could not swear they threw the stuff up, but I am quite positive it is so. I have seen the fish all chewed up thrown out in the water. They often bite fish, and swallow a part and leave the rest.

We do not catch tautog with the first run; not till about the 5th to the 15th of May. We catch only now and then one in April.

Sea-bass (black-bass) come a little after the tautog, along about the 20th of May to the 10th of June. We do not catch any stragglers in April.

We got the first lot of scup on the 27th of April, when we got four barrels, I think. We got them most plenty about the 8th of May. We did not catch a great many this year. At one haul I think we got two boat-loads, say thirty-five barrels in all. These were very large—three-pounders, some of them. They had spawn in them, not very ripe. I have seen spawn in middling-sized scup—the two-year old scup. When most plenty, we got $2 50 and $3 a barrel for scup. We sold to Powel, of Philadelphia. Those we sold at New Bedford we got three cents a pound for.

The lowest price we have ever sold blue-fish for was two and a half cents a pound—about the first of July. I sent some to New York, and got $4 98 for two barrels. They would weigh 180 pounds to the barrel. That was about the 25th of July.

We have caught less fish this year than last, and got poorer prices for them. We have cleared expenses, though. If I had known the result this year I should have undertaken the business, even if I had other business. We did three times as well last year, though. I do not know why we did not do better this year; whether it was in consequence of the greater number of pounds in this vicinity, or because the fish were caught more at the westward.

Question. What were some of the peculiarities in respect to fish this year?

Answer. Scup came earlier; menhaden and herring about the same time as usual. We have not caught any more squeteague this year than we did last. Mr. Luce, at the Vineyard, said he caught as many as last year, but did not get so much for them. We caught as many common mackerel as last year; but they were more scarce than any other fish.

Squeteague we took first about the 20th of July, excepting now and then a scattering one; not more than half a dozen in all before that time. They had spawn in them—good, nice spawn. I took particular notice of the difference between the spawn of herring and squeteague. The herring-spawn was larger; that of the squeteague a dark red, and smaller than that of herring. But all I noticed had spawn in them. We never catch any small squeteague, though the first we caught, I think, was not over a foot long.

Cod-fish we catch once in a while; the large, overgrown, logy ones. We caught one pretty good-looking cod-fish.

We never catch haddock.

Pollock we have caught a few.

Cod-fish are caught off on the Middle Ground in the spring; once in a great while they catch a haddock, but not often.

Hake they catch occasionally.

We never catch any salmon or salmon-trout.

Striped-bass we caught last year, sixty or seventy, weighing from eight to twelve pounds. It is pretty difficult to catch them in a pound. They go in, but seem to go out again very quick at the mouth.

Question. Do any of these go back in the fall as they come in in spring?

Answer. Yes; menhaden and mackerel. I do not know how late scup stay; we have caught them in October, in a moderate fall. Tautog stay in the bay all winter, in the deep water.

Captain SMITH, who was in company with Captain Spindel, said he had lived here and on the island twenty years. Blue-fish were most abundant in this vicinity from twelve to fifteen years ago; much more plenty than now.

Captain SPINDEL: When the guano-works were started, seven years ago, I went purse-seining for the company, and there were plenty of blue-fish up in the bay then. The next year I was looking for schools of mendaden and went aloft, and saw nothing but blue-fish as far as I could see—for miles around—breaking water in schools. There were no menhaden there. There was a blue-fish for every square yard; they were all over the water, and it was as calm as could be. I stood on the deck and looked at them and then went aloft, and they were as far as I could see. I have never seen anything like it since. I have known blue-fish in Massachusetts Bay as far back as fifteen or sixteen years ago. I went to California about twenty years ago, and I think they were there before I went away. The blue-fish drive out other fish when they come into a bay—all kinds of fish that are not larger than themselves.

Mackerel have come in more plenty, and blue-fish not so plenty. I think the blue-fish do more harm to the fishing than the pounds do, ten times. I don't think pounds make fish any more scarce. Where a pound catches one fish, other fish eat up thousands.

Question. Suppose the blue-fish eat up nine-tenths of all the scup, and the traps caught the other tenth when going to the spawning-ground, would not that make a difference?

Answer. It might make a difference; but it would make a difference if they were caught with a hook. Take it this year; there have been a great many pounds—lots of them—to the westward; and they say they never had so many fish as this year. I wish fish would diminish so that we could get a decent price for them. There are five times as many fish eaten as there used to be. Any one would think that 5,000 vessels, catching mackerel with spawn in them, would diminish the number;

some years they are scarce, and then again you can get any quantity of them.

I have seen very small mackerel in Provincetown Harbor, not more than two inches long, in July.

Question. What is the number of mackerel taken in pounds, compared with those taken with the hook?

Answer. Not one-tenth. This year and last there have been more purse-seines for mackerel than ever before. When fish are moving, bound somewhere, we catch them in the pounds, when they come near the shore. They follow along in here, and away they go again.

Question. Do you suppose bound for the eastern end of the sound, to come into the bay?

Answer. Yes, sir.

When mackerel have spawned and are in schools they will refuse the hook, sometimes for a week at a time. I think they have no spawn in them in July. When they are out here they are full of ripe spawn. They will take the hook in the spring, even when they have spawn in them. They run out as far as fifty miles from the shore.

I never caught a scup out at sea.

I do not think pound-fishing is a quarter as bad as blue-fish for destroying fish. A blue-fish will destroy a thousand fish in a day. When they get into a school of menhaden you can see a stream of blood as far as you can see. They go into them, and they will destroy the whole school before they let them go. I think menhaden are more scarce than they used to be. They put up the guano-factory here on account of menhaden being so plenty then. Twenty-five or thirty years ago there were no blue-fish, and menhaden were plenty. Only once in a while were there any blue-fish then. Finally the blue-fish got so plenty they drove all the menhaden out of the bay. There are plenty of menhaden up in the head of the harbors; some blue-fish will go up and drive them up as far as they can; but blue-fish don't like to go up into fresh water.

Squeteague will swallow menhaden whole.

We did not catch any little scup last year in the pounds. Once in a while we caught one of large size; but now we get a good many small ones every morning. We let them go, all we can.

Sharks and rays are more plenty in the early spring; they seem to go with the early fish.

Stingarees don't come until July.

HEAD OF BUZZARD'S BAY,
September 25, 1871.

POTTER BRIGHTMAN, (lives at Westport, but was fishing near the head of the bay:)

I can tell you it is slim fishing; the fishing is growing worse every day. There is nothing doing at Westport. Here I can fish every day about, but there you cannot. I am catching tautog altogether; I have not caught a scup since I have been here. There are some boats that go off and catch a few little ones, very few. I have been off here fishing for tautog, and, while catching that car full of them, could catch two bushels of scup. I do not see any difference in the little scup this year. They are caught up; that is what makes them so scarce. The traps and pounds here catch them; they catch more in one night than all the smack-men can catch in a season. Before they commenced trap-

ping I could come up here and catch enough to get ready to go home again in ten days. The fish grow scarcer every year.

Question. How are you going to remedy it?

Answer. I would stop the trapping; that would remedy it. I would vote to stop trapping pretty quick.

Six or seven smacks used to come up here, and every one get a load; now nobody has got a load for a long time. There would be as many again fishing with hook and line if it were not for the traps.

There are no traps about Westport; they had one, but the head man was accidentally shot, and it was stopped; and since then there have not been any traps set there.

Soon after they began to trap at Wood's Hole fish began to grow scarce. In one night they caught 200 barrels of tautog; and not only that, but they take them as spawning fish.

Fish will not bite when full of spawn. I have seen two bushels in a heap all throwing out their spawn. Then you cannot get a fish to touch your hook. I have seen as many as twenty-five large fish doing that. They look as though they were all in a snarl, coming right up under your boat. Sometimes you will see a pair together. I have seen them shoot their spawn. They will not bite then, and you cannot do anything with them.

They spawn anywhere, where they happen to be. I have never seen scup spawning.

Tautog spawn the last of May or first of June.

Blue-fish have been pretty plenty the latter part of the season; the first part they were scarce; most of the time less than last year, and very small.

I never saw them spawning; and I don't know as I have taken them with spawn in them; I don't know a great deal about that kind of fish; I follow tautoging.

I have caught 2,400 tautog in a day, with the help of one man. But I have not made a living by fishing this summer. I have done the slimmest that I have ever done since I have run a smack. I went out with another man, and fished all the forenoon, and both of us got about twenty-five pounds.

The largest tautog I ever caught weighed fourteen pounds. Rock-bass are very scarce; I have not caught but one since I have been here. I used to catch a great many here. In fishing for tautog, while I got a hundred weight of them I would catch fifty to seventy-five pounds of bass. I believe I did not catch one this spring.

I do not know where squeteague spawn. They are more plenty than they used to be for a good many years. Forty years ago they were more plenty.

I remember when there were no blue-fish around.

If the traps were stopped the fish would come back again in half a dozen years.

There are very few hook-fishermen now. Most of them have given it up because they cannot make a living.

Question. When they caught fish in old times where did they market them?

Answer. In New York. I think it is twenty years since they have sent fish to New York.

They first begun to set traps at Watch Hill, and then at Saughkonet.

I came up with a man about a week ago, and we have caught about seven hundred pounds. We have fished ever day—two of us.

COHASSET NARROWS, *September* 25, 1871.

A. J. HATHAWAY:

I have been here twenty years, and I never saw the young scup so plenty as they have been this year. Striped-bass are five times as plenty this year as they were last.

There are more tautog here, and about the same number of squeteague as last year.

There are a good many young blue-fish up this harbor; but no large ones.

I think blue-fish and bass spawn up in this river.

Small mackerel come up here, arriving about the first of October, and staying three or four weeks. Last fall we caught a good many.

PATRICK BUTLER. There have been plenty of small-sized scup about here this year. For two or three years back there have been very few here. Twelve or fifteen years ago they were very plenty; but for two or three years back a man could not get enough to have a mess to eat, with a hook and line.

ROBERT P. HOLMES. There have been a good many young scup about here this year. There was a great quantity of young menhaden. I have not seen so many young scup for a long time. The breeding scup in the spring here were not more than 8 inches long. We have not caught any big scup at all.

I never saw a young squeteague.

I think blue-fish spawn up in this bay, because we see a great many little fish. I found a young blue-fish Sunday morning, not over an inch long. For the last two years we are not catching many blue-fish.

S. S. RIDER, (head of Buttermilk Bay.) There seem to be a great many scup here this year; some three and some six inches long. We don't see any scup that will weigh a pound here now, and we don't get but a few any way. My father, twenty years ago, used to catch three boat-loads at a tide. Now you might as well look for a salmon as for a large scup.