

Nov. 6 1899

Newport Natural History
Society

From J. M. R. Southwick

NEWPORT
NATURAL HISTORY
SOCIETY

State of Rhode Island and Providence Plantations.

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ANNUAL REPORT

OF THE

COMMISSIONERS OF INLAND FISHERIES,

MADE TO THE

GENERAL ASSEMBLY

AT ITS

JANUARY SESSION, 1897.

PROVIDENCE:

E. L. FREEMAN & SONS, STATE PRINTERS.

1897.

REPORT.

To the Honorable the General Assembly of the State of Rhode Island and Providence Plantations, at its January Session, 1897 :

The Commissioners of Inland Fisheries herewith present their report for the year 1896.

TROUT.

Thirty-three thousand (33,000) trout fry and about nineteen thousand (19,000) yearling trout has been purchased and distributed in the various waters of the State.

Trout fishing during the past season has been reported to us as better than last year.

LAND LOCKED SALMON.

The Commissioners have received notice from United States Fish Commission of an allotment of three thousand (3,000) eggs of this species; these will be hatched and reared until a year and a half old, and distributed in waters adapted to them.

BAY FISHING.

The fishing in the upper waters of the bay has been even better than last year.

LARGE MOUTHED BLACK BASS.

(Micropterus-Salmoides.)

The Commission has the past season given some attention toward the propagation of this species of Black Bass believing that

it will prove a valuable addition to the inland fisheries of the State.

A body of water located within the town of Westerly, has been set apart for this purpose with the consent of the Town Council, and will be used exclusively for the cultivation of this variety of game and table fish. Two consignments of fish have already been received and planted in this preserve; one, August 4th, of six hundred (600) and one, November 4th, of fifteen hundred (1,500) both from United States Fish Commission.

In from two to three years these fish will have increased sufficiently to enable the Commission to commence the work of stocking many of the ponds and rivers of the State.

The large mouthed bass is native to the Great Lakes, the rivers of the Mississippi basin, and nearly all the waters of the Southern States.

In New England it is comparatively unknown, the small mouthed being perhaps better adapted to the clear cold waters of most of our lakes and ponds and has consequently received more attention.

There are however in this State many waters that are better adapted to the large mouth species, for instance, in large shallow ponds or lakes of comparatively high temperature and in rivers with sluggish current and muddy bottom, also in rivers that are somewhat polluted by refuse from mills, etc. It is this class of waters particularly that the Commission hopes to largely benefit by the introduction of this species.

As a food fish the large mouth bass rank among the first of the fresh water fishes; its flesh being firm and white, and when properly cooked, tender and juicy.

As a game fish it is fully equal to its relative the small mouth, when taken in the same waters and under same conditions. And upon good authority it can be claimed that it is a much more ready biter, rising freely to the surface of the water for natural bait or artificial fly. The small mouth, on the contrary, as many

anglers can testify, is extremely epicurean in his tastes and on the whole a very uncertain biter.

In point of size, the large mouth is certainly the superior of all varieties of the fresh water basses of this country, attaining in some waters the enormous weight of eighteen to twenty pounds, whereas the largest specimen of small mouth of which there is any authentic record weighed but eight and three quarters pounds.

SMALL MOUTHED BLACK BASS.

(*Micropterus-dolomieu.*)

The fishing for this variety the past season has not been equal to that of the previous season. This fact is not taken as evidence that the fish are decreasing, but is probably owing to low water in many of the ponds during the best part of the fishing season.

Realizing that there are many ponds and streams in the State well adapted to this species and which are as yet unstocked, the Commission has leased a small preserve near Niantic and has stocked the same with adult fish. These fish spawned in May and it is estimated that there are now several thousand young bass in the pond, which are doing well. These fish will at the proper time be transferred to waters hitherto barren of this variety of food fish.

SEA FISHES.

The last season has been remarkable for the number, easy and large capture of most all varieties. Any and all methods of capture have been successful. Even by hook and line have large numbers been taken. The low prices that have generally prevailed throughout the season, have alone prevented a very large harvest to the fishermen.

We believe we cannot better present the season's fisheries than by quoting from our local and other papers as follows:—

CODFISH SWARM IN SCHOOLS OFF THESE SHORES.

Fishermen in this vicinity who have followed their vocation for years, report that this year's run of codfish is the largest that they

ever saw. Captain Covo, with three others, took 1,000 pounds of fish in four hours while anchored at a point a half mile south of the lightship recently.

The fish are of smaller size than usual, but are more abundant than ever they were before. They average about five pounds in weight, which is just about half their usual size. A fish weighing fifteen pounds, this season, is almost a curiosity, while one weighing fifty pounds, such as has been caught in former years, is now of very rare occurrence. The fish are so plentiful, an exchange says, "that wagons have been loaded from the rocks on the shore at Beaver Tail by the farmers of Jamestown."

The favorite bait is a small herring about five inches long, and large clams and quahogs. The former, however, is preferable by reason of it being less susceptible to the attacks of other fish.

The fish are now working westward, the season in the vicinity of Beaver Tail lasting usually from November 10th to the 1st of December. After December 1st they will be found in the deeper waters off Point Judith, and later, in the still deeper waters off Block Island.

THE FISHING SEASON.

The fishing fleet still lingers in these waters and those of Block Island, but the number of craft is very small compared with the big mackerel fleet. The superabundance of fish of all kinds this season has stopped all the talk that the local fishermen once had about the dumping of the local house offal off the lightship. To this was ascribed the scarcity of fish at one time. The swill is still dumped off the lightship, but the fish were probably never before so plentiful off Newport and Block Island, and hauls have been made with hand lines and seines that put the glowing stories of old time fishermen far in the shade. The menhaden fishermen have also had a good season, one firm reporting the catch of 37,000 barrels. The price, however, of both fish oil and guano is so low that very little profit is made on the season's work, which is now over.

CODFISH IN PLENTY.

Codfish have succeeded mackerel in the waters about Newport and Block Island, and their number is legion. Last night fishing schooner Dauntless brought in fifty-seven barrels of school cod from the trap near Narragansett Pier, and to-day brought over

forty barrels more. Last night a school was seined off the bathing beach at Block Island, and a large haul was towed ashore on the beach, from which twenty-five barrels were to-day shipped on the Danielson. This is the first time in the memory of the oldest fishermen that a seine full of codfish was hauled ashore on the beach. This fish is usually found further from the shore, but this season can be caught like black fish, right up to the rocks along the coast. The mackerel are thinning out, after a season of unprecedented supply.

FISH BY THE TON.

Wonderful Catches off the Jersey Coast Reported.

ATLANTIC HIGHLANDS, N. J., November 25.—All fishing records from Sandy Hook southward below Highland Beach are being broken. Fish are being caught by the ton. Such swarms of all kinds of the denizens of the sea have never before been known, even to the oldest fisherman hereabout. Whether it be the warm weather or the break at Sandy Hook allowing a free flow of sea through the new channel, or what, it is certain that the fishermen never before revelled in such quantities and variety of fish.

So great has been the supply that fish of all kinds bring at wholesale only 1 to 1½ cents per pound. This town and adjoining villages are glutted with fish. People are becoming nauseated from eating fish so often. Wagon load after wagon load has been disposed of inland, and though selling cheaply the fishermen have made considerable money. The fish have been shipped by rail or boat to nearby cities, and yet the supply is greater than ever. They are given away here to those who will take them.

Captain N. B. Church from New York under date of December 1st, 1896, writes :

“I am always willing to give you any information I may have regarding the fisheries. Let me say with all possible emphasis that food fish of all the native species have been abundant on the Atlantic Coast. That none of the common varieties can be selected that the market has not been full of, at almost any time during its season. Any one that wants a fresh codfish in this vicinity to-day can get it by going down on the coast with a rake, or hook and line, something I have never known before.”

“The menhaden business as a whole has been much more profitable than last year. There was a fair run of this fish in our section early in the season, also in Buzzard’s Bay, but none on Maine Coast.

The body of menhaden have been located between Sandy Hook and Delaware Bay and the body has been a very large one and the fish fat.”

Mackerel have been exceedingly plenty this season, and the largest catch ever known here has been made. Since early summer they have been constantly in our waters until November. The average has been small in size, but we know of one that was $18\frac{1}{2}$ inches.

The following from *N. Y. Herald* gives a correct idea of the abundance of these fish :

A BIG RUN OF MACKEREL.

For some reason not altogether accounted for there has been a greatly increased mackerel catch during the season just closing, and unprecedentedly large schools have made their appearance in some places. This has brought the supply of fish up and prices down.

There have been large schools of mackerel off the Long Island shore. Sunday the waters about Far Rockaway were filled with these fish, and the sport of catching them was entered into by all the summer sojourners. A single boat, with one net, in a few minutes caught enough to nearly swamp the craft. But most of the catch were small fish. In places in Jamaica Bay the waters were fairly blocked by the fish, and fishermen landed more than have been caught in years before along the entire coast.

From all along the coast between Hatteras and Nova Scotia, comes the story of big schools and large catches. The fishermen of Nova Scotia say they are taking twice as many as during any season in the last six years. From Newport comes the information that three mackerel are now being caught for every one taken during the past seven years. One of the largest catches ever made at Newport was in 1890, and the present year has eclipsed that record.

Fish dealers doubt that the closed five years during which mackerel could not be caught with a net, has had the effect of bringing the present increase. For five years previous to June 1, 1894, the United States statute forbade the taking of mackerel by net, and when the season of 1895 opened it was thought the catch would be large, but it was not. Now, however, the mackerel are very plentiful, and in waters where the United States statute did not operate.

“There is no accounting for the great increase in mackerel,” said a well known Fulton Market fish dealer. “I don’t think the law had anything to do with it. The supply is practically inexhaustible. It is only a question of the fishermen looking in the right places and having favorable weather. For some years the catch has been small, because the larger schools have not been reached and the supply was so low that many dealers went out of the mackerel business and thousands of consumers went without the fish. Now the supply has come up to the demand, but not beyond yet, for the demand for mackerel is an enormously large one.”

Inquiry about the market develops the fact that ten years ago the supply of mackerel was so large that after the market was supplied at the lowest possible price, each day loads of the fish were emptied into the garbage scows. Then the supply began to fall off, and the past seven years it has not been nearly equal to the demand, and prices have been high. A strange thing is that during these years of scarcity, the fish that were caught were large in size, running from one to three pounds each, while now five or six combined weigh a single pound.—(*New York Herald*.)

We copy the following description of a new way to take mackerel :

NEW WAYS OF TAKING MACKEREL.

The fall run of mackerel at Block Island is unusually heavy. The fish are large, too but so shy that the old ways of taking them with hook and line, drift nets, and seines, each of which proved successful in its turn, have failed. About four years ago the eastern mackerel fishing fell off largely for this reason. This year the fish are more plentiful than ever, but they are just as cunning, and while the catch exceeds by far the catch for the same period of last year, the number of fish taken is as nothing compared with the number of fish seen.

Many of the mackerel that are now being taken by the Block Island fleet of mackerel schooners are caught by an entirely new device. The tools are two long poles affixed to the schooner's side, a deep, loose square bag net of fine mesh, and plenty of "stosh," or fish bait. One of the poles is swung out from the starboard fore rigging like a boom, at right angles to the vessel and on a level with the deck. This boom is twenty-five feet long. At the same time the second pole, which is a trifle shorter, is swung out near the main rigging in a similar manner. The bag net is stretched on these booms, which are placed about thirty-five feet apart. This distance is the length of the net on its inner edge. The outer edge is made fuller and is weighted with lead sinkers. When all is ready for use the after boom is lowered down until its outer end and most of the net are concealed under water. Freshly ground stosh is thrown into the capacious maw of the hidden bag, the mackerel rush for the bait, and when they swim thickly enough the after boom is hoisted until the outer edge of the net is above water and the fish are imprisoned. The fish are then bailed aboard the vessel. The old fishermen assert, however, that the true mackerel are not taken by this device, as they get away promptly at the first upward move of the net, but the voracious bull's-eye mackerel fall an easy prey. The schooner Stowell Sherman took 165 barrels of mackerel in this way the other day, and all the mackerel craft hereabout have been or are being equipped with the new apparatus.

A novel device that may lead to the entire revolutionizing of the mackerel fishing is to be tried here in a few days upon the arrival of the steamer Bradley from Provincetown. Her commander, Jonathan Chase, has contrived an electrical apparatus which, he thinks, will lure the mackerel. He has a dynamo in his boat to which is attached a long wire supporting from one to six incandescent light bulbs. These bulbs will be lowered into the depths and the lights turned on. This, it is believed, will draw the mackerel by night in such numbers as to make the selling of them easy and profitable.—(*Block Island letter in New York Sun.*)

SQUETEAGUE.

These fish have of late years been very abundant, and very regular in their visits to our waters. They seem to have in a measure taken the place formerly held by their colleagues the blue-

fish, whom they resemble in their habits, both being very destructive of other fish.

Why the blue-fish remain in the waters about Block Island, and very plenty farther west, and cease to come here in numbers, is a problem we at present cannot solve.

We are indebted to the representatives of the transportation companies for the following valuable statistical data, which is the only essentially correct data that can be got, and if continued it will give a very correct idea of the relative catch of fish from year to year. While this does not give a sure guide to the gross product, it is certainly correct and reliable as far as it goes; and we prefer to give it, rather than depend on the usually questionable way of making up statistics from rough estimates or guesses.

Of course there is a large amount shipped by sailing crafts of every description, besides the home consumption of which we have no means of getting accurate account.

We are enabled this year to present the following table made up from data kindly furnished by the various transportation companies, and shows the entire shipment by all regular lines from Newport, during the year:

	FISH. Barrels.	LOBSTERS. Barrels.	SWORD-FISH. Number of Fish.
January.....	273.....	12.....	.....
February.....	81.....	1.....	.....
March.....	47.....	3.....	.....
April.....	154.....	58.....	.....
May.....	7,713.....	287.....	.....
June.....	7,179.....	374.....	42
July.....	2,184.....	548.....	95
August.....	1,824.....	576.....	.....
September.....	6,257.....	146.....	6
October.....	3,301.....	54.....	.....
November.....	868.....	22.....	.....
December.....	56.....	34.....	.....
*Express.....	1,127.....	.....	.....
Total.....	33,064	2,115	143

* From June 1 to December 14.

To show the comparative shipments over the Old Colony Steam-boat line we continue our table.

YEAR.	FISH.	LOBSTERS.	TOTAL.
1886.....	.....	.....	17,434
1887.....	16,657	834	17,491
1888.....	15,033	1,161	16,194
1889.....	19,306	2,047	21,353
1890.....	8,933	2,650	11,583
1891.....	18,032	2,204	20,236
1892.....	26,832	2,123	28,955
1893.....	24,452	1,399	25,851
1894.....	17,769	2,392	21,161
1895.....	24,622	2,119	26,741
1896.....	20,425	1,728	22,153

LOBSTERS.

The last has not been a very productive season for lobsters.

We have retained a number of egg lobsters until they hatched, but have not made any attempt to hatch by artificial incubation, being satisfied by past experience that the waste by that method is too large to justify its continuance. The claims made for the incubators of hatching 90 per cent., we feel sure could only be made by rough estimate and no allowance can be made for large numbers that die (before they are removed from the incubator) or before they are liberated.

That the method in use at Wood's Hole is much more successful we cannot doubt, but that any method can be made to approach that of nature we cannot believe. And as it is possible to retain the egg lobsters until the eggs are hatched, we are very much in favor of that method as the most practical one of aiding nature to preserve the product of the eggs.

The following article taken from the *Spectator* has so pertinent an application to our fisheries, that we give it here with our hearty endorsement, and commend its teachings to all having to do with the fisheries, in efforts for their promotion :

THE PRACTICAL STUDY OF FISH.

The Lancashire Sea Fisheries Joint Committee are about to establish a Marine Laboratory on Rod Island, near Barrow-in-Furness, for the scientific and practical study of the life and habits of sea fishes. The new Laboratory will be under the direction of Professor Herdman, and will take the place of that at University College, Liverpool. In evidence of the success of similar institutions we may quote from the history of that established at Plymouth in 1888. Various Commissions on Trawling and Fisheries, mainly with a view to inquiring into the damage or decrease of fisheries, had found that they were working absolutely in the dark. Every one knew all that needed to be known about nets, gear, boats, stores, fishing, and marketing. But no one knew anything worth knowing about the fish. When questioned, the practical fishermen could give no practical information. They did not know where the migratory fish came from. They were equally in the dark as to where they went to. They did not know why they came, or why they went. They wanted to stop trawling on "spawning-beds." But trawlers denied that the fish in question laid eggs on spawning-beds at all. It was scarcely fair to prohibit trawling over ground at the bottom of the sea for fear of injuring eggs which might be, and as it now appears are, floating on the surface. Nothing was settled as to the food of the herrings, pilchards, and non-carnivorous fish, and when a cry was raised to protect "immature fish" it was discovered that no one knew when a sole or a turbot was "mature." In America trial had been made of the habits of a limited number of fish, and immense hatcheries established, with one striking result. The cod at certain times leave the shores of New England to visit the colder waters of Newfoundland. The millions of young fish turned out in the hatcheries had established a race of non-migratory cod, remaining on the coast, and these formed a regular object of a fishery, fishery, and named by the trade "Commission cod." But something more than a machine for producing young fish was needed,—an institution which might stand in the same relation to the national marine wealth and the history of fishes as Kew holds in regard to the vegetable produce of the Empire and the natural history of plants. In any case, the scientific and practical side must be associated, if only, as Professor Ray Lankester urged, because no such distinction could possibly be drawn, and to ignore

scientific methods was to court practical failure. The marine "Kew" took shape at Plymouth, in the building erected by the Marine Biological Association, and maintained partly by a Government grant of £500 per annum, but mainly by the subscriptions of the members. This thoroughly English proceeding of undertaking a national work by private persons convinced of its necessity deserves credit and practical support. Its tables and tanks afford to the biologist opportunities for studying at first hand examples of evolution more finely graded, more numerous, and more coherent among the swarming creatures of the sea than among the less numerous and less varied creatures of the land. For those to whom habits rather than structure are an object of curiosity, the services of the local fishermen are engaged to note the movements of the fish, the depths at which they are found, the nature of their food, the use of artificial in place of natural bait, the times at which the fish are spawning, and the nature of the ground on which they lie. The scope of its inquiries must range from the deep Atlantic, to see whether or not it is there that the pilchard shoals disappear, to the inlets of Plymouth Sound, and the effects of sewage upon local fishes. And lastly, it must possess an intelligent director, with ample means at his disposal for capturing, keeping, and observing all sea creatures and products, from a full-grown conger to the egg of the sole. The Journal of the Association is rich in interesting experiments and discoveries from its first to its latest number, and yet the work of discovery in this great half-explored region of our populous shallow seas is only in its beginning. Nor can this be matter for surprise when our ignorance of the habits of migratory river fishes is such that it was not until 1896, and then as a novel and striking discovery, that the President of the Royal Society announced that Professor Grassi had at last discovered that the river eels, whose method of reproduction had been a mystery since the days of Aristotle, never breed till they go to the sea,—a discovery made partly owing the aid of the classic Charybdis, whose currents threw up the breeding eels from the deeps in which they are hidden. This would doubtless have been discovered long ago had the eels not reversed the process used by the salmon, and gone to the sea, instead of ascending rivers, to breed. On the other hand, it is evidence in itself of the difficulties in the way of marine zoölogy. Almost the first discovery made at the Laboratory bore directly on the great question of the appearance and whereabouts of the

eggs of many food fishes of the sea. This was the work of Mr. J. T. Cunningham, the naturalist of the Association. Everybody knows that the salmon and trout and most river fish have regular spawning-beds, sometimes dropping the eggs on rough gravel and sand, which some fishes, such as lampreys, pile up in order to break the force of the current, sometimes, as in the case of many coarse fish, sticking them on to weeds and piles by the locks and weirs. If the sea fishes caught for food did the same, as was commonly believed, protective legislation and much interference with trawling might have been necessary. In a very short time Mr. Cunningham, unequipped with a steam-launch, and only able to make excursions with the local fishermen, was able to write as follows:—"The eggs of nearly all our food fishes, except the herring are *buoyant* and *transparent* when they are ripe. The immature eggs when in the ovary are opaque white grains; but by the time they are shed they become as transparent as glass. These ova, as soon as they are shed, are fertilised by milt in the water, supplied by male fish in the neighbourhood, and then rise to the surface of the sea; in calm weather only do they actually reach the surface, because, being but slightly lighter than the water, agitation causes them to be uniformly distributed throughout the depth affected by wave motion." Thus in a few lines the writer was able to correct a natural mistake as to fact which might have caused mischief and wrong legislation, and to describe a most beautiful device of Nature by which these millions of eggs are rendered invisible, locomotive, separate, and safe from local destruction. In addition, he identified the eggs of the common sole, and found that, were it desired, millions of young lemon-soles and mackerel might be hatched from eggs contained in the fish caught for market. Equally important data were obtained at Plymouth on the rate of growth of sea fishes, and on the size and age at which they spawn. This had only been attempted successfully in the case of one species, the cod. The results give safe ground for the discussion of the limits of size below which these fish should be protected. Reports from the fishing boats and fleets give the catches at different seasons, the nature of the ground, state of the wind and weather, and in the lobster-fisheries the proportion of the different sexes. Interesting experiments on the use of artificial baits are recorded, and careful notes made on the larval stage of soles and other marine fish.

Perhaps the most curious of the recent results of the ex-

periment made at the Laboratory has been the confirmation of the common, but almost incredible, belief that soft and helpless starfish can open oysters, and that they must therefore be carefully weeded out from the beds. The starfish throws itself over the oyster, folding over the shell on either side like a pair of clasped hands. It then sets up a steady strain by means of its suckers, a strain which apparently causes it little effort, while the exertion of "holding the door" at last wears out the oyster. By fixing a weight fastened to strings connected with each shell the strength developed by the starfish to open the oyster has been calculated, and the pulling force by which this strange conquest is achieved determined. The Laboratory is also in touch with that at St. Andrews, and with the Liverpool Laboratory, now about to be transferred to the coast. Norway, France, and above all, Italy, at Naples, possess institutions of a similar kind in a high state of efficiency, and by comparison and division of labour the whole history and wanderings of the migratory fishes will before long be mapped out and available for the use of the fishing fleets of Europe. We half wonder that some one does not pity the fish, but pity stops at the water's edge; and even John Bright was an angler.

RANGES FOR FISHING GROUNDS.

The following were copied from a memoranda book written in the early part of this century and may be of interest at this day, although some of the land marks have disappeared:

Easton's Point.

Hanging rocks and Gardner house, Joshua Peckham's house and barn, just clear Easton's point land.

Memoranda, good fishing ground about six or eight rods southward of the sheep pen.

Ranges on Coggeshall's Ledge.

Walter Easton's house, and the north end of Gull Rock, Church steeple and boat house.

Inner Ground.

Walter Easton's house and Coggeshall's bass rock, Church steeple and Sheldon's Point.

Seal Rock and Light house and Walter Easton's and Gull Rock.

Pool.

Church steeple and east side of the boat house at the ledge.

Colling's house over a certain rock on the north part of Price's Neck.

RANGE OF FISHING GROUND AT THE FLAT ROCK.

The great rock at rough point over the high part of the flat rock, and certain high bunch of trees on Gooseberry Island, towards the north part over the opening between the ledge and Sheldon's Point.

Second middle ledge the west side of the West Island in range with Mount Hope, the church steeple over the high part of Comorant Rock.

Other Part.

Church steeple as before Comorant Rock with Mount Hope.

Gulf Rock Ledge.

Turn Peas Rock with Easton's boat house, the high gray part of the Gull Rock with the end of the fence that leads down to Sheep Point.

Other Part.

Southwick's house in range with Moon's Lane by Cozzen's house, a light colored rock just back of the Black Flat Rock near the spring in range with Church's chimney.

Other Part.

Southwick's house and Moon's lane, and the end of the wall next the Fell Rocks and Church's house.

FISHING LEDGE FOR TAUTOG.

South-west part of Cuddyhunk with Gay Head.

South-west part of Pennykies with Quixes hole, eight and one-half fathoms.

Carge's Ledge off against Gooseberry Island. The east side of Island Rock at west end Coggeshall's Beach, with Amy's house, and Rocky Farm house with Mr. Hopkin's steeple.

Range for the Fountain.

The Black Rock with ten fathoms, Collins house the Black Rock. The light house with the grove next northward of Tower Hill, and with a high bunch of trees near the middle of it; or late in the fall let Collin's house range with the east side of the rock about twelve fathoms. Good in September for blue-fish and succoting and late in the fall for cod and tautog.

Shole Nub (Knob).

The high rocks southward of Castle Hill, with a white clift to the southward of dumplings and Rocky Farm house just over the south-east part of Gooseberry Island and south-easterly from that for one-half mile.

BROKEN GROUND FALL COD AND TAUTOG

Scup Ledge.

The high part of the outermost rock at Saconett Point just within Cormorant Rock and Cozzen's house.

Easton's Point in range with a tree, the top only appears when on the ledge, nine to ten fathoms. July and August large fish.

Cormorant Inner Shore.

North-east corner of Easton's orchard in range with the windmill, a large tree in Saconett to range just on the south-west of Sachuest or the windmill over the hollow on Cormorant Rock.

Other Part.

James Easton's buttonwood tree in range with the buttonwood tree by the mill north-west of Church's orchard just within the high part of Cormorant Rock; a few trees over the low part of the rock.

Cormorant Rock Ledge.

A house on Saconett a little above the bunch of large trees with the high part of the Island Rock where it closes with Sachuest Point, a large tree by the mine about a rod to the mill on the hill above it, and east and west from that good tautog ground.

The large tree on Saconett with the high part of Cormorant Rock ; the church steeple two or three rods, or Taylor's orchard, or a large tree by the mine on the western part of the mill above it.

Same ledge. The church steeple two or three rods clear of Taylor's orchard, the bunch of large trees above the large tree on Saconett with the low south-eastern part of Cormorant Rock. Benjamin Church house, Flat Rock, the high part of the rock with a high rock on the land, the north-western part of Gooseberry Island between the ledge so as the trees just to appear, light-house just in range Shole Nub on Price's Neck.

*Coggeshall's Ledge.**No. 1 Range.*

Walter Easton's house between north-west part of Gull Rock and Stanton Rock, and half way on Stanton Rock ; the south part of Collin's house with the north-east part of a rock to the eastward of Price's Cove. Good for cod and tautog in the fall.

Other Part, No. 2.

W. Easton's house over the north-western part of the Gull Rock, the church steeple just clear of Ledge Point, meeting house steeple over the high part of Ledge Point on the shore.

No. 3.

The light-house just to the southward of Seal Rock, the meeting house steeple just clear of the high part of ledge. November, cod and tautog.

No. 4, Out Shole.

Freebody's boat house in range with the meeting house steeple. Collin's house on the high north-east part of the rocks on Price's

Neck against a white cliff, the barn part clear of the high part of the rocks, the light house about six feet to the north-west west of the highest part of a grove on Narragansett.

No. 5, Late and Early.

The church steeple with Freebody's boat house, and just eastward of it, and Collin's barn the whole of it on the north-west part of high part of rocks on Price's Neck. Seven to ten fathoms or more, but for tautog late and early, or late as the middle of December.

Ledge South of Seal Rock.

The high rock south of Castle Hill, with a white cliff to the southward of the dumplings and Rock Farm house just over the south-east part of Gooseberry Island and south-easterly from that, for one half mile. Broken ground fall cod and tautog.

Good Fishing on Cormorant Ledge.

Ranges. Comorant Rock with Church's house, (the lowest on Saconett,) Seener's Point to open a remarkably large tree on Saconett with a small one by it. Hubbard's mill with Easton's orchard two or three rod from ye New England part.

State of Rhode Island in account with Commissioners of Inland Fisheries :

1895.	DR.	
Dec. 31.	To balance due Commissioners.....	\$73 55
1896.		
Apr. 6.	To paid for 33,000 trout fry.....	82 50
"	" " 19,000 yearling trout.....	658 88
"	" " seine.....	11 98
"	" " brown trout eggs.....	7 04
Dec. 31.	" " expenses Commissioners.....	207 24
"	" " printing, advertising and postage..	5 40
		\$1046 59

1896.	CR.	
May 2.	By cash of State Treasurer.....	\$227 00
Oct. 15.	“ “ “ “	615 88
Dec. 31.	“ balance due Commissioners.....	203 71
		\$1046 59

J. M. K. SOUTHWICK,
 HENRY T. ROOT,
 WILLIAM P. MORTON,
 CHARLES W. WILLARD,
 ADELBERT D. ROBERTS,

Commissioners of Inland Fisheries.

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