

AMERICAN FISHES

A POPULAR TREATISE

UPON THE

GAME AND FOOD FISHES OF NORTH AMERICA

WITH ESPECIAL REFERENCE TO HABITS AND
METHODS OF CAPTURE

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New Edition

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BOSTON

L. C. PAGE & COMPANY

PUBLISHERS

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Rec'd 6/14/39

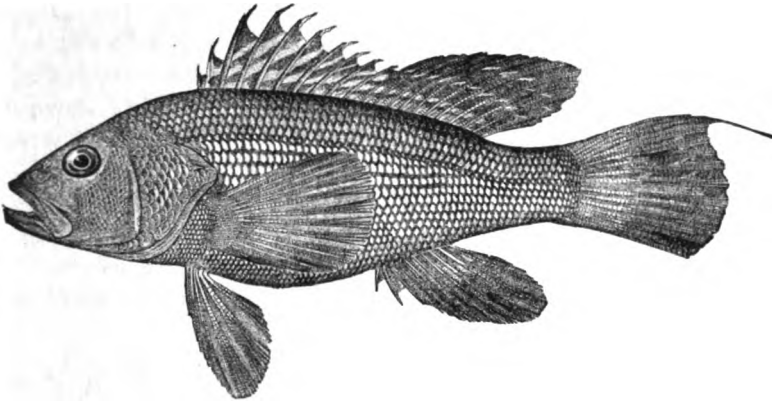
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THE SEA BASSES.

So gaat het hier : dat's Werelts overvloed,
 (Waar mee de Mensch word koninglijk gevoed
 Door gulle gunst des milden gevers) doet
 Hem vaak vergeeten.

Steenbrassem, Steur en Dartien en Knor-haan.
 En *Zee-Baars* die geen vorst sal laten slaan
 En *Kabellau* : en *Salm*, die (wel gebrään).
 Is vet, en voedig.

JAKOB STRENDAM, *t' Louf van Nieuw Nederland*, 1661.

“THE SEA BASS is another gentleman among his finny comrades,” wrote Frank Forester. He belongs to the family *Serranidæ*, the members of which are similar in form and habits to the Perches, from which they are distinguished by certain anatomical characters, scarcely tangible to persons not expert in ichthyology. This family contains a very large number of species, some of which are to be found in all the tropical and temperate seas. On our Atlantic coast there are over twenty kinds, while in California, there are four, at least, which are of economic importance.

The Sea Bass is also known south of Cape Hatteras as the “Blackfish,” and is the most important species on our coast. In the Middle States the Sea Bass is called “Black Will,” “Black Harry,” and “Hannahills;” about Newport and New Bedford, “Bluefish,” and at New Bedford also, “Rock Bass.” Curiously enough, the Southern name, “Blackfish,” is in use at Oak Bluffs, on Martha’s Vineyard, and, it is said, also in New Jer-

sey. In Gill's "Catalogue of the Fishes of the East Coast," and in Storer's "Fishes of Massachusetts," I find the statement that it is known as the "Black Bass." If this was true at any time, the usage has since undergone a very considerable change. The species should be carefully distinguished from the Blackfish of Long Island Sound, which is the tautog, a member of a very different family.

Under the name Sea Bass, are included two species, so similar in general appearance that it is scarcely necessary to discriminate between them,—so similar, indeed, that for a score of years after the differences had been pointed out by Holbrook, the Carolina ichthyologist, naturalists refused to believe in their existence.*

The habits of the two are so similar that they will be treated as one throughout this essay.

The combined range of the two species embraces the Cape Ann, Massachusetts, and the northern part of the Gulf of Mexico. It has not yet been determined where the dividing line in their distribution should be drawn. It is probable, however, that it is somewhere in the neighborhood of Hatteras, since the *atrarius* type prevails about Charleston, where indeed Dr. Garden obtained the specimens which he sent to Linnæus to name and describe. There is doubtless a neutral ground occupied by both species, and the determination of its limits would be a capital subject for some enterprising angler to investigate.

The extreme southern limit of the Sea Bass appears to be the sandy coast of Texas, where Jordan ascertained that it is rarely if ever seen. Silas Stearns informs us that it is rather abundant in certain rocky localities along the Gulf coast of Florida. In Pensacola Bay it is seen about the piles of stone ballast that lie in shoal water, and also at sea on the fishing grounds near the entrance. It also occurs in St. Andrew's, St. Joseph's, and Apalachicola Bay; and to the southward, where there is more or less rocky bottom, showing either in reefs or in channel-beds, it is found in abundance. In the vicinity of St. Mark's, Cedar Keys, and St. Martin's Reef are other prolific Bass reefs.

It has only recently been found to occur north of Cape Cod. Previous to 1878, there were on record only four instances of its occurrence east of Nantucket, but in the summer of 1878 several were taken in the Milk Island weir, off Gloucester. This weir, which lies on the west side of Milk

* *S. furvus*, the northern form, has the air bladder simple, and the pectoral as long as the ventral fin; *S. atrarius*, the southern form has the air bladder sacculated, and the pectoral longer than the ventral.

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Island, almost under the shadow of the twin light-houses of Thatcher's Island, waylaid many southern species never before known to enter Massachusetts Bay, among them the kingfish and the Spanish mackerel. At some future time the Sea Bass may become abundant in these more northerly waters. Like the scuppaug, the Spanish mackerel, and the bluefish, it was at one time almost unknown to New England. In the "Catalogue of the Fishes of Connecticut," published in 1842 by Linsley, the species is described as a great novelty. However strange to the people of Connecticut at this time, it is said by Storer to have been so abundant, between 1850 and 1860, that fifty or sixty vessels were accustomed to obtain full fares in summer about the Vineyard Sound. This statement is probably somewhat of an exaggeration.

The "Zee-Baars" mentioned in the verse of Steendam's poem, "In Praise of New Netherland," which stands at the head of this chapter may or may not have been *Centropristes*. Mr. Murphy, in his translation, gives the exact equivalent of the Dutch words. :—

"The bream, and sturgeon, drumfish and gurnard
The *Sea-Bass* which a prince would not discard
The cod and salmon cooked with due regard,
Most palatable."

Schoepf, writing of the fishes of New York in 1787, stated that the "Blackfish" was rarely brought to New York, and the species does not appear to have been at all prominent among the New England food fishes of the last century. A diligent search through the works of the early writers fails to bring to light any definite allusions. It would be interesting to know whether there has actually been an increase in their abundance, or whether the apparent increase has been, as with the Spanish mackerel, due to the introduction of new modes of fishing, or the discovery of new fishing grounds.

The favorite haunts of the Sea-Bass are among the rocky ledges and "spots of ground" which are so abundant in the bays and sounds, and are scattered at intervals along the outer Atlantic coast. Among the boulders and ledges, full of cracks and crevices, which mark the position of these localities, there grow, in the greatest profusion, invertebrates of every order. A haul of the dredge over a good fishing ground often brings up tens of thousands of minute animals. A hundred species have often been recorded from a single dredging by the Fish Commission. Upon such feeding grounds the Sea-Bass congregate in great herds, rooting

and delving among the holes, in search of delicacies. The best Bass grounds in the North are usually covered by water twenty to fifty feet deep, while off Charleston they are from sixty to one hundred and twenty feet below the surface.

Throughout the whole region of its distribution the species usually occurs near the shore, and also in spots of medium depth, where suitable feeding-grounds occur. In the Gulf of Mexico they are often found in very shoal water; indeed, all along the Southern coast the young fish are found close in to the shore, and I have seen a great many taken with hook and line from the sea-wall at St. Augustine. The temperature of the water affected by this species and by the red snapper corresponds very closely, and in most instances is probably not less than 50°, though on the coast of Connecticut and New York it may be slightly lower.

The Sea-Bass is a bottom-feeding and a bottom-loving fish, and, it may be said, rarely comes to the surface. This rule has exceptions, however, for Mr. Charles Hallock writes: "Although the Sea-Bass is a bottom fish, yet once on an outward-bound voyage to the southward of the Gulf Stream we made fast to a ship's lower mast, found drifting on the surface, which was covered with clams and barnacles and surrounded with Sea-Bass. We caught all that we wanted and cut loose. They weighed from five to twelve pounds each, and were all male fish." Whether or not those occurring in northern waters migrate southward in winter, or merely go into deeper water, is not yet ascertained. According to Capt. Edwards and Capt. Spindle, they make their appearance in the Vineyard Sound from the 1st to the 20th of May up to the 10th of June. Capt. Spindle states that no stragglers are ever seen in April. Capt. Edwards declares, on the other hand, that they are found in that region in the winter, and I find in my note-book a statement that they have been taken in the Vineyard Sound in the winter by Thomas Hinkley and others. A careful study of their habits would form an important contribution to zoölogy.

They are somewhat sluggish in their habits. The temperature of the body is low, being very nearly that of the surrounding water, and their digestion is slow. Although very eager feeders at times, they seem much less fat than bluefish of the same size, and their growth is less rapid. They seldom leave the bottom, and there is as yet no evidence that cold weather drives them far from their summer haunts. They retreat, in all probability, into water of greater depth, where they pass the winter in a somewhat

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torpid state. Like the tautog, they appear to have a habit of lying under loose stones and in cavities among the rocks. I have observed this habit in the tanks of the New York Aquarium, my attention having been called to their movements by Mr. Fred. Mather. In the South they are feeding all the year. I have seen them taken in February on the Snapper Banks at the mouth of the St. Johns, at St. Augustine, and along the wharves of Charleston.

The food of this species, as of its associates upon the same grounds, consists of crabs, shrimps, squids and small fish. It is stated that the intestines of mackerel and the stomachs of menhaden are considered the best bait about Wood's Holl, Mass., while further south, shrimps and pieces of the flesh of fishes, such as small sharks, are frequently used. They are voracious feeders and readily attracted; their mouths are tough and leathery, so that when once hooked they are not easily lost.

Scott states that their feeding time is during the lull of the waters between the turn of the tides, when they are easily taken by the angler. In the North the Sea-Bass occupies the feeding grounds in company with the scuppaug or porgy, the flounder and the tautog, while in the South its associates are the red snapper and the various species of grunt, and on the inshore grounds, among the rocks, it occurs in company with the sheepshead and the king-fish.

The breeding time is believed to occur in July and August. Mr. Dyer, of Naushon, states that the Sea-Bass, when they come into the pounds in the spring, are full of spawn ready to shoot. Young fish, one or two inches long, are abundant among the eel-grass along the shores of Southern New England. In the Gulf of Mexico, according to Stearns, they spawn in early summer, and the young are caught in July and August.

The average size of the fish in New England is about one-and-one-half pounds. A Sea-Bass nine inches long weighs about five ounces; ten inches long, six to ten ounces; eleven inches long, nine to twelve ounces; twelve inches long, ten to sixteen ounces; while the length of a three-pound fish varies from eighteen to twenty inches. They occasionally attain the weight of four or five pounds, but this is unusual. In the South they are, as a rule, much smaller than in the North. This is especially the case in the Gulf of Mexico. In these waters, and along the southern part of the South Atlantic coast, they rarely exceed a pound in weight. Large male fish are remarkable on account of the presence of a large hump upon the

top of the head. This is particularly prominent during the breeding season, and at this time the colors of the whole body are much brighter. The colored plate of this species, drawn by Mr. Kilburn for Scribner's "Game Fishes of the United States," represents a large male at the breeding season, the only picture of this kind which has ever yet been made.

The Sea-Bass is of interest to fish culturists as being the first marine fish upon which the experiment of artificial propagation was tried in this country. This was in June, 1874, when Mr. Mather fertilized a number of eggs at the station of the United States Fish Commission at Noank, Conn. These eggs were placed in shad boxes and were watched for several days, as they passed through the early stages of segmentation. A storm interfered with the completion of the experiment, and it has never been repeated.

The Sea-Bass is without many rivals as a chowder fish, and for boiling. Its flesh is firm, flaky, and very sweet. The hardness of the flesh makes it desirable for packing in ice, and prevents rapid deterioration in hot weather. The head is so large that half the weight of the fish is lost in the process of dressing for the table.

There are excellent fishing grounds on the Savannah Bank and others near Charleston, at the mouth of the Chesapeake and the Delaware Bays, off the coast of New Jersey and the entrance to New York harbor, and in Long Island Sound and Buzzard's Bay. The latter are frequented in summer by ten or twelve Connecticut smacks, which purvey for the New York market. The fish are carried in the wells of the smacks to Noank or New London, where they are kept alive in floating cars until needed for shipment. It is one of the chief recommendations of this fish that it is so hardy and tenacious of life that it can be kept any length of time in confinement. Thousands of them may be seen, swimming in perfect health in the cars, crowded together until their sides are in contact, and thus they are often kept for weeks. Before they are placed in the wells the fisherman has recourse to the expedient of thrusting an awl into the side of the fish so as to puncture the air-bladder. Otherwise they would float on the surface, on account of the expansion of air in the bladder after the removal of the pressure of the weight of water under which they are accustomed to live. Several of the Noank smacks are usually employed from November to April in fishing for Sea-Bass on the Southern coast. These supply the Charleston market.

In summer several steamers make daily trips from New York to the fishing banks off Sandy Hook and Long Branch. They are patronized by thousands of amateur fisherman, who seldom fail to bring back trophies of Sea-Bass and scuppaug.

In the summer of 1832, Captain Lyman Bebe of the fishing smack *Mary*, of New York, discovered a notable fishing bank about twenty miles to the eastward of Sandy Hook. 1832 was the year of the "great cholera," and its progress was the one topic of conversation, and Captain Bebe named his new-found fishing ground the "Cholera Banks."

Another famous reef, known as the "Fishing Banks," extends from off the Highlands of Navesink, past Long Branch, to a point about opposite Squam Beach. Both of these are favorite resorts for New Yorkers, who visit them on the small excursion steamers.

An artist, visiting the Cholera Banks, thus records his experience :

"Starting so early in the morning that his eyes are still heavy with unexpended sleep, he soon finds himself on the steamer in company with a hundred more fellow passengers, some of whom are heavy-eyed and inclined to grumble about the hour of starting, while others are cheerful and full of excitement at the prospect of the day's sport. Down the bay, through the Narrows, across the lower bay, and out to sea, steams the little craft on which they are embarked. Past the red light-ship, and twenty miles due east from Sandy Hook, she runs, and then begins the search for the Banks. The pilot takes ranges by several of the big hotels, of which so many have been erected during recent years along the south shore of Long Island; a man in the bows takes soundings; and if the day be clear, the steamer is soon brought to anchor directly above the reef, and a hundred eager lines are dropped overboard.

"Once at anchor the fun and trouble begin together. It is fun to catch fish; but seasickness is among the saddest of human experiences, and many of those who have bravely endured the pitching to which the steamer has been treated ever since she left Sandy Hook succumb at once to the motion that succeeds it as soon as she comes to anchor, and rises and falls with regular, ceaseless monotony on the long swells.

"Apart from these, and ridiculing their wretchedness, stand the professionals and toughened amateurs, smoking short pipes, hauling in fish, making cruel jokes upon the condition of the novices, and thoroughly enjoying themselves. They bait their hooks with hard-shell clams, skillfully toss their leaden sinkers far out from the steamer's side, let run fourteen fathoms of line, and haul in Sea Bass, black-fish, flukes, rock cod, weak fish, porgies, or whatever else comes to hand. Once in a while a line goes whizzing through the water with a wild rush, there is a protracted struggle, and an ugly customer in the form of a shark either breaks the line and escapes, or is hauled on board amid much rejoicing.

The first catch of the day is always watched for with the greatest interest, for upon it depends the ownership of a number of small pools that have been made up among the passengers. Other points to be scored are the largest catches of the day in numbers and weight, and the catching of the heaviest single fish.

Late in the afternoon the anchor is lifted, lines are drawn in, and the steamer is headed toward home. Then comes a time of great interest. The fish are cleaned, sorted, weighed, examined with care, passed around for inspection, and commented upon. Special lots are laid aside for home consumption and for distribution among friends; and frequently those who have made the large catches, and have more than they know how to dispose of otherwise, raffle them off or present them to the crew of the steamer."*

This species is captured in great quantities in the pounds and traps of Rhode Island and Southern Massachusetts. Its distribution is wide, many of its haunts are unfrequented by fishermen, and it is probable that its importance as a food fish will increase in years to come. In 1880, over 350,000 pounds were sold in New York city.

There is a small species, *Serranus trifurcus*, resembling the Sea-Bass which has been found only in the vicinity of Charleston, S. C., and Pensacola, Fla., where it is called the "Rock Black-fish." It occasionally finds its way to the Charleston markets.

The Squirrel fish, *Serranus fascicularis*, is a beautifully colored species, usually to be seen in the markets of Charleston, north of which locality it has not been found. The following paragraph from Holbrook's "Ichthyology of South Carolina," contains all that has been observed regarding its habits: "Little can be said of the habits of this fish. It, however, appears in our waters in May and June, and remains until November. It is occasionally taken with the hook on the black-fish grounds, but is never abundant. Southward it ranges at least to Brazil."

* *Harper's Weekly*, Nov. 1, 1884. (With illustrations.)