

26.—THE AMERICAN BLACK BASS.*

By MAX VON DEM BORNE.

1.—ITS SUCCESSFUL INTRODUCTION IN GERMANY.

From accounts which I had read, both in American and English publications, it appeared that the fish which in North America is known by the name of "black bass" possesses qualities which made it in the highest degree desirable for me to obtain some of these fish, and to make the attempt to raise them here. This desire became still stronger when the well-known fish-culturist, Mr. Fred. Mather, of New York, wrote me under date of the 31st October, 1881: "Why do you not introduce the black bass in your lakes, as is done in England? It is as gamy when on the hook as the salmon."

In March, 1882, therefore, I asked Mr. Mather, and Prof. Spencer F. Baird, of Washington, United States Commissioner of Fish and Fisheries, to aid me in this matter, and from both these gentlemen I received the kindest promises. Professor Baird wrote to Mr. E. G. Blackford, in New York, and Mr. Mather promised to have some of these fish caught in Greenwood Lake, about 50 miles from New York City, located partly in the State of New York and partly in the State of New Jersey. Mr. Mather did not deem it advisable, however, to attempt the conveyance of these fish during the warm season and without a person to accompany them during the voyage. In the beginning of August he caught a considerable number in Greenwood Lake, and he informed me, at the end of October, that he had 20 large fish and about 50 small ones ready for me. They were kept in the fish-tanks of Mr. E. G. Blackford, Fulton market, New York City, until the month of February last, when they were intrusted to the care of Mr. G. Eckardt, jr., of Lubbinchen, who was just returning to Germany after a stay of several years in the United States. To the care and management of that gentleman I owe it that all these fish arrived here alive and well. The voyage lasted from the 17th to the 27th of February, the fish being conveyed by the steamer Elbe, which had previously to this successfully carried a number of live fish to and from America. There were delivered to Mr. Eckardt, at New York, 7 black bass of the small-mouthed variety, 25 to 31 centimeters long; 45 of the large-mouthed variety, 7 to 13½ centimeters long; and 1 small *Perca fluviatilis*, which seems to differ somewhat from our perch. The large fish were distributed in 2 barrels, each having a capacity of about 500 liters, whilst the small ones were placed in 2 barrels of about 200 and 250 liters capacity. These barrels were not quite filled. The sea was rough, so that Mr. Eckardt had some trouble in taking

* "*Der Amerikanische Schwarz-Barsch.*" From Circular No. 2, 1883, of the Deutsche Fischerei-Verein, Berlin, April 30, 1883. Translated from the German by HERMAN JACOBSON.

proper care of the fish. No special measures were taken, except to keep the water, by means of ice, at a temperature of 5 degrees Réaumur, and to remove the sediment by means of a pump; only a little fresh water was added. The attempt to feed the fish during the voyage did not prove successful. Upon arrival in Bremen the water was found to be as clear as at the departure from New York. At Geestemunde the fish were met by one of my assistants, who was kindly aided in landing them by Mr. F. Busse, wholesale dealer in fish. They were brought here in a large barrel, holding about 500 liters, the water being cooled by ice, and air being introduced in it. Because of some delay at Bremen the fish did not reach here till the morning of March 3. Upon their arrival they were all found to be lively and in good condition. Only one small black bass died after a while, and was sent to the Zoological Museum in Berlin, where Dr. F. Hilgendorf examined it, and identified it as *Grystes salmonoides* Lacépède.

2.—CHARACTER OF THE BLACK BASS.

All my information relative to the black bass I have obtained from the following sources: Forest and Stream, vol. 2, p. 120; vol. 4, pp. 342-357; vol. 8, pp. 260-359; vol. 9, p. 284; vol. 14, p. 349; and vol. 15, pp. 68, 366; Report of United States Commissioner of Fish and Fisheries for 1871-'72, p. 806; the same, for 1872-'73, pp. 392, 525; Robert R. Roosevelt's Superior Fishing, pp. 10, 11, 71, 75; Frank Forrester's Fish and Fishing of the United States, p. 195; Thaddeus Norris, The American Angler's Book, 1865, p. 103; Charles Hallock, The Fishing Tourist, 1873, p. 123; James A. Henshall, M. D., Book of the Black Bass, 1881—this is the most important source of information; Genio C. Scott, Fishing in American Waters, new edition, 1883, p. 280; and Transactions of the American Fish-Culturists' Association, 1882.

The original home of the black bass in America is the region of the Saint Lawrence and the Mississippi, whilst it is not found in the Middle States, New England, on the Atlantic coast, and in the rivers flowing into the Pacific. Henshall distinguishes two varieties: first, the large-mouthed black bass, *Micropterus salmonoides* Henshall, or *Grystes salmonoides* Lacépède; and, second, the small-mouthed black bass, *Micropterus dolomieu* Lacépède.

Both these varieties are usually found in the same water; they are lively, muscular, and voracious, bite very well, and afford excellent sport. When freshly caught they smell of musk. They are a great table delicacy, and are in this respect not excelled by any other fish. They are not very sensitive as regards the impurities introduced in the rivers from factories and cities, and are found as far south as the tropics, near the Gulf of Mexico, and as far north as the cold waters of the great fresh-water lakes on the boundary of Canada. They reach their greatest size in very spacious and deep waters and at a high temperature. In the north they attain a weight of four or five pounds, rarely six or

eight pounds weight; in the south, and in deep water, they attain a weight of twelve to fourteen pounds. In rivers, they like a strong current, rocky, stony, or gravelly bottom, and in lakes a gravelly bottom, logs of wood, roots of trees, plenty of aquatic plants, springs at the bottom, and very deep water; but they also flourish in still, shoal water, especially when it has a dense growth of algæ. The young fish live on very small animals, fish-eggs, insects, crawfish, frogs, mussels, &c.; in a few months they reach a length of five centimeters; in one year, ten; in two years, twenty to thirty, and a weight of one pound, and thereafter generally increase in weight one pound per year. The black bass spawn on rocky ledges, on gravelly or sandy bottom, at a depth in rivers of from half a meter to one meter; while in lakes they seek a place from one to two meters below the surface, on the edge of still greater depths. They make themselves a nest in the gravel, by removing the mud and sand with their tails and fins, thus creating a hole in the sand twice the length of their bodies; sometimes they line their nests, on muddy bottom, with small sticks and leaves; they also do this when there is gravelly bottom in the neighborhood. In the Southern States these fish spawn in March, in the North from the middle of May till the middle of July; the farther north the later they spawn. During this period they ascend the rivers till they find shallow water, or seek the shallow places near the shores of the lakes. The eggs adhere to surrounding objects, and are hatched in one to two weeks; the young fish remain in the nest from two to seven days, and both the eggs and the young fish are carefully guarded by the parents. During the cold winter season the fish become lethargic, cease to eat, and dig themselves holes in the mud, in which they hide, or retire to fissures in the rocks, or seek deep waters under moss and aquatic plants, where they sleep till the next spring.

3.—TRANSPLANTING BLACK BASS.

Both kinds of black bass when transplanted easily accustom themselves to the different conditions of life. They can easily be transported alive, and in ponds, lakes, and rivers increase rapidly and without any difficulty. Since 1820 the transplanting of these fish to waters where heretofore they were not found has been repeatedly attempted, and often with success. The transactions of the American Fish Cultural Association for 1882, page 19, contain the following interesting report by Mr. George Shephard Page:

“It can hardly be believed that, at the present time, any one can doubt the usefulness of stocking our waters with black bass. Not quite 60 years ago a few of this kind of fish were brought by rail from the Ohio River to the Potomac River, and a few years later a number were taken from this river to the Susquehanna. Not quite 15 years ago some black bass were transferred from the Susquehanna to the Delaware. And

now I simply refer you to the fish markets, not only of our large cities, but also of small and remote towns; everywhere we find that the black bass (by general consent considered as valuable for the table as for the sportsman) is more common than the pike, and cheaper than the white-fish (*Maräne*). The 39 fish which, in 1869, I placed in waters in Maine, have increased so rapidly that about one hundred lakes and ponds are full of them. Summer hotels and villas have been built on the shores of some of these lakes, and thousands of visitors are attracted almost exclusively by the large number of black bass. Many of our highest authorities in matters relating to fish think that is *the* fish of the future. One of our most recent and best works* is solely devoted to this fish. The manufacturers of fishing-tackle have noticed a constantly increasing demand for black-bass tackle. A large number of clubs have been formed for the sole purpose of catching bass. It is also very remarkable that, wherever the black bass has been introduced, the pike disappears rapidly, proving the truth of the old saying: "The strongest holds the battle-field."

4.—VALUE OF THE BLACK BASS FOR GERMAN WATERS.

The black bass thrives best in large rivers having a strong current, deep water, and a rocky or gravelly bottom. It will, therefore, be specially suited for those parts of Germany in whose waters the barbel thrives. Excepting the migratory species the German fish-culturist has no domestic fish which is suitable for these waters, and whose increase he can regulate to any considerable extent. It is difficult to stock rivers, above impassible dams, with migratory fish, for these go to the sea when they are quite small, and are not able to return when they have grown large. It is my opinion, therefore, that the black bass is calculated to fill this gap. The same may possibly apply to the deep lakes, in which no Coregoni, saiblings, or lake trout thrive; but I consider it somewhat of a risk to place the black bass in waters where trout and saibling live.

An exceedingly valuable quality of the black bass is this, that it can be easily caught. It is frequently very difficult to catch carp and *maränen*, and the just objection is often made to the raising of these fish, that it is useless to introduce or to increase fish which cannot be caught.

It will be of great interest to our sportsmen to learn that those anglers who have become acquainted with the nature of the black bass esteem it just as highly as the salmon and the trout.

*James H. Henshall: "Book of the Black Bass." Cincinnati, 1861.