THE SPECIES OF BLACK BASS

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It gives me a great deal of satisfaction to take part in this group of papers on black bass. As some of you know, the bass referred to as Kentucky bass was not recognized by fish culturists or by scientific men until 1928. It was my privilege to be able to obtain some specimens of that bass and to observe that it was different from the large-mouth and the small-mouth bass.

It was something of a shock to realize that the long-established idea of two species of black bass was a false one, but the evidence was indisputable that there was a third species. I gave it the scientific name, Micropterus pseudoplites, and the common name of Kentucky bass. This was because the bass was particularly common in Kentucky, and I did not think of any other name that might be good as a common name. The adoption of that name, however, has caused a good deal of trouble, and I am very sorry I called it the Kentucky bass. The people in Kentucky seemed to like it, but Mr. Viosca down in Louisiana refuses to call it a Kentucky bass and says it should be the southern small-mouth. The name Kentucky bass does not go with the Ohio people, as they had some cross the river into the streams of Ohio. So perhaps it would be better to have another name for it. The common name in Ohio is yellow bass, but that is not good because there is another fish known as yellow bass.

The adult fish is characterized by the prominence of the spots along the lower side, and that characteristic is perhaps sufficient to warrant the common name of spotted bass. I do not know that it makes much difference what we call it, but it is very important that we recognize it.

It is important to recognize the species not only in fish culture but in the laws as well. That is not done now; practically all the laws of the states dealing with black bass mention only the large-mouth or the small-mouth bass, and it would be very easy for a man, if he were so disposed, to carry a case to court and make it impossible to convict him for any violation of the law with respect to the sale or handling of the spotted or Kentucky bass—whatever you may call it. That is a point which ought to be carried home by those who represent the states in which this particular species of black bass occurs. The name “spotted bass,” or whatever name may
be decided upon for the species, should be written into the laws so that the species can be given legal protection.

The area in which this species occurs is a rather wide one. It does not go as far north as either of the other two basses. It goes farther south than the small-mouth bass. The states from which we have specimens—and I think the range of the species is well outlined by the specimens I have seen—are as follows: West Virginia, the southern parts of Ohio, Indiana, Illinois, Missouri, Kansas, (southeastern corner) Arkansas, the eastern part of Oklahoma, eastern Texas, some parts of northern Louisiana, abundantly through Kentucky and Tennessee, Virginia on the Tennessee River side of the mountains, Mississippi, Alabama, Georgia, and South Carolina, I presume, because we have it from the Savannah River between South Carolina and Georgia. We recognize that it does not go quite as far north as the other two basses; we do not have it in Michigan or in the northern parts of Ohio or Illinois. It does not go so far south as the large-mouth, which penetrates into northern Mexico, but it does have a very wide range.

Regarding the range of this species and the common name southern small-mouth bass, suggested by Mr. Viosca, some complication arises in that the small-mouth bass is represented by a distinct species again in the mountain streams of Georgia and Alabama which are tributary to the Alabama River and in the streams on the Atlantic coast drainage. There is a form there which is more closely akin to the small-mouth bass than is the spotted bass, but is distinctly different from the ordinary northern small-mouth bass. That means that there are four species instead of two of the black bass in the United States. This fourth species, which has not yet a scientific name—I hope soon to describe it—has the very restricted range which I have outlined, probably occurring only in Alabama, Georgia, and South Carolina about the southern swing of the Allegheny mountains.

What additional species may be discovered in the future I do not know. It seems as though four ought to be enough, when we remember that there were only two. I have some bass specimens from southern Alabama which do not agree with any of these; what they are I do not know. They may be a hybrid; we get hybrid fishes, you know, quite frequently in nature. Hybrids among the sun fishes are very common; I know they are hybrids because I have proved it in experimental aquaria as well as through observations in nature.

It was thought for a time that this spotted bass was a hybrid between the large-mouth and the small-mouth, but the
evidence now is distinctly against that viewpoint. The only evidence of hybridization of the bass that I have had is from a small stream in the southern part of Oklahoma. Of the bass found in that stream a few looked like the small-mouth and a few like this spotted bass, but the great majority of them are variously in between. But that is the only stream of scores from which I have seen specimens of spotted bass in which there is any real indication of hybridization, and the hybridization there is between the spotted bass and the northern small-mouth bass. There is a slight possibility that there is another species in that area, but I think it is a hybrid.

It may be that the large-mouth and the small-mouth bass do hybridize, but I have never seen one, and if any of you fish culturists ever produce any I would certainly like to hear about it, and preferably see specimens. I think we can assume that this spotted bass is not a hybrid; it has characters which are very distinctive and which are quite unlike those of either of the other two species.

There is some question further about the kinds of bass, even if we recognize these four species. The large-mouth black bass of Florida is very different from the large-mouth black bass of Minnesota. I do not think these differences are specific; they are racial differences, possibly what we would call sub-species; more likely merely local races. There is a very distinct need for a study of these races of black bass.

We all think, of course, of the giant black bass of Florida, which reaches a size far beyond that attained by the bass in any other part of the country. Is that black bass a distinct race, or does it grow large because of some inherent quality? Is it large simply because of the long growing season and the rich food found in the shallow lakes of Florida? That is something that is tremendously in need of investigation, and I trust that such investigation will be carried out so that we can improve our stock of black bass throughout the country.

(Joint discussion on several papers appears on page 98)