PROCEEDINGS

OF THE

BIOLOGICAL SOCIETY OF WASHINGTON

RECENT ADDITIONS TO THE FISH FAUNA OF THE DISTRICT OF COLUMBIA.

BY BARTON A. BEAN AND ALFRED C. WEED. [Published by permission of the Secretary of the Smithsonian Institution.]

Since the publication of the list of fishes of the waters of the District of Columbia and vicinity by Smith and Bean^{*} several species not there listed have been taken. Some of these have been introduced by agents of the Bureau of Fisheries, others which were present were overlooked in the making of the collections previously listed.

In view of the changes in fish fauna which are being made by the introduction of new species in various waters it seems advisable to publish, as soon as possible, notes on the appearance of species in waters foreign to their natural habitat.

According to U.S. National Museum records the large mouth black bass was present in the Potomac long before the date given by Smith and Bean (1889). No. 16,841 of the Museum register reads: "Black bass, *M. salmoides*, upper Potomac, weight 4 lbs. 11 ozs., Major Hobbs, Washington, D. C." This fish was cast in plaster by Mr. Jos. Palmer, cast No. 602, date November 1, 1876. We have recently seen the mold of this specimen and there is no doubt as to its identity.

Ictalurus furcatus (La Sueur).

Dr. Hugh M. Smith kindly furnishes the following note on the occurrence of this species in the District of Columbia:

"In 1905 the fishermen about Washington began to catch this species, and samples were submitted to the Bureau of Fisheries for identification. There is no record of the introduction of the species and it is evident that it was not distinguished from I. punctatus at the time the young were planted. Specimens weighing over thirty pounds have been reported."

30-PROC. BIOL. SOC. WASH., VOL. XXIV, 1911.

^{*} Bull, U. S. Fish, Com., vol. 18 (1898), pp. 179-187.

Schilbeodes gyrinus (Mitchill).

A specimen of this little Mad Tom was taken in Little Beaver Dam Branch, Anacostia River, May 25, 1911, by Mr. Weed.

Pimephales notatus (Rafinesque).

BLUNT-HEAD MINNOW.

Exceedingly common in the pools of all the swifter streams about Washington. Mention of this species was omitted by error from the previous list.

Notropis arge (Cope).

Many specimens provisionally identified as this species have been taken in the lower portion of Cabin John Run. These specimens may prove to be *Notropis photogenis* if the two species are finally proven to be specifically separable. These fishes may have been introduced from the Ohio River drainage.

A very large number of fishes of many species were taken in Cabin John Run December 4, 1909, and March 19, 1910. These hauls were made with a twenty-foot bag seine (Baird collecting seine) under the Chesapeake & Ohio Canal. The haul that was made in December took many thousand fish, about half of which were *Pimephales notatus* and the rest various small minnows. All the fish were unusually silvery in color.

Notropis amœnus (Abbott).

This species has been taken in moderate numbers in Cabin John Run and in some of the other streams flowing into the Potomac River. It is listed by Evermann and Hildebrand from the Mattapony River, Virginia.*

Ericymba buccata Cope.

This common western minnow occurs in fairly large numbers in the lower portion of Cabin John Run. It was probably introduced in the upper portion of the Potomac River by the U. S. Bureau of Fisheries.

Lepomis cyanellus Rafinesque.

This western sunfish occurs in very large numbers in pools in the river in the neighborhood of Chain Bridge. Few large specimens are seen but very many ranging from one to three inches in length. Ten specimens, each about three inches in length, were caught in considerably less than ten minutes, in a small pool. All were taken on hook and line, using a single small piece of angleworm as bait. This species was probably introduced into the upper portion of the Potomac River.[†]

^{*} Proc. Biol. Soc. Wash., vol. XXIII, p. 158.

[†] First published record of *L. cyanellus*, Bean and Weed, Proc. U. S. Nat. Mus., 40, p. 376, plate 50.

Lepomis auritus (Linnæus).

It is probable that there are two species confused under this name in the waters of the District of Columbia and vicinity. Living specimens of both may be seen in the aquarium of the Bureau of Fisheries at Washington, D. C. Both are distinguished by the great length of the opercular flap but otherwise are very dissimilar in color. One is a rather slender fish having the body-color and color changes of Lepomis cyanellus. It is very difficult to distinguish this form from Lepomis cyanellus except by the character of the opercular flap which is long and pointed, extends obliquely upward and has a straight light colored line along its upper and its lower edge. These lines extend well on to the operculum. The other form is much deeper bodied and has the body-color of Lepomis gibbosus.* The opercular flap extends horizontally, is about as wide at its distal end as at its proximal end and appears rather truncate. Two forms have previously been described under the names Lepomis auritus and Lepomis auritus solis. It appears rather probable that the slender form should stand as a separate species under the name Lepomis solis.

Lepomis pallidus (Mitchill).

This species is taken in the Potomac River, in the Tidal Basin and in the lower portion of the Eastern Branch. This species may be native rather than introduced, as it is an inhabitant of the deeper waters where ordinary scientific collecting might easily overlook it.

Doctor Smith furnishes the following note on the occurrence of this species in the Potomac River as early as 1900:

"Extract from letter from R. Hessel, May 2, 1900.

"In regard to the *Lepomis pallidus* I sent the other day to Central station, I have the following to state: Four years ago, in June, 1896, I went with some of the men of the station to the Potomac to get some living food for the black bass. Hauling the large seine I caught about 1,600 young fish—sunfish, catfish, roaches—and amongst the sunfish—about 500 of $\frac{3}{4}$ of an inch in length—I noticed three small sunfish of the same size, but of a little different shape from the common sunfish; they seemed to be of more slender form and had a little darker coloration. I examined all the fish I had in the tub and found 14 in all. I tried to get some more of them and made a few more hauls, but could not find any more.

"I put the 14 young fish in a small pond to see their development. Four of them died and the others developed very well. I feed them on mashed fish, and last year they spawned and I have now about 2,000 on hand."

These specimens were identified by Dr. W. C. Kendall.

Stizostedion vitreum (Mitchill).

The Bureau of Fisheries has planted a large number of pike perch fry in the Potomac (during the years 1901 to 1904) and a number of specimens have been taken.

^{*} See: Bean and Weed, Proc. Biol Soc. Wash., Vol. XXIV, p. 73.

Boleosoma longimanus (Jordan).

Many specimens of this species, which was previously known only from the headwaters of the James River in Virginia, have been taken in the Northwest Branch about one mile above Hyattsville, Maryland. It occurs in company with *Boleosoma olmstedi* but seems to prefer rather deeper water. All the specimens were taken in a stretch where the water, about two feet deep, flows rapidly and without ripples over a bottom of medium sized gravel (stones one to four inches in diameter).

Etheostoma flabellare Rafinesque.

Two specimens have been taken in Cabin John Run. Cat. No. 64,398, U. S. Nat. Mus., was taken December 2, 1909, and No. 66,330 March 19, 1910.