An Aberrant Etheostoma.

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While seining in Tippecanoe Lake during the summer of 1896, there was taken among a great many Etheostoma caprodes a single very aberrant specimen of darter. I have been unable to identify it with any described species. Its close affinity to Etheostoma caprodes and to Etheostoma aspro at once strikes one, and a closer study shows it to be in many respects intermediate between these two species.

The specimen is rather large, although not too large for an Etheostoma aspro, measuring 78 mm. in length. The form of the head and body is very much like Etheostoma aspro. The snout is evidently longer and the interorbital space broader. The cheeks, opercle and nape are scaled. The color pattern, on the whole, also resembles more closely that of Etheostoma aspro. The barred character of Etheostoma caprodes in the upper half plainly shows itself. Along the side is a series of nine large dark blotches, more or less confluent with intermediate smaller ones. The dorsal, pectoral and caudal fins are barred. The ventral and anal fins, plain.

In the table are given measurements and counts of the aberrant specimen and the two most nearly related species:

	Etheostoma caprodes.	Etheostoma sp.?	Etheostoma aspro.
Dorsal fins	XIV-16 (average)	XVI-14	XIII-13
Anal fin	II-11 (average)	II-11	II-9
Lateral line	88 (average)	80	69
Head in body	4.27	4.21	4.00

Three possibilities present themselves: (1) The specimen may be merely an unusually aberrant form of Etheostoma caprodes or of Etheostoma aspro; (2) it may be a new species; (3) it may be a hybrid.

In regard to the first, it may be said that, considering all the characters, it is scarcely within the range of normal local variability of either species. If we consider the spines and rays, the scales and the proportions as set forth in the above table, it would seem easiest to consider it a vari-

ation of Etheostoma caprodes. In the form of the body and the coloration it could more easily fall within the range of variation of Etheostoma aspro. Indeed, this affinity is so strong that if it is merely a variation it can only have come from Etheostoma aspro.

Both in coloration and in structural characters it can readily be distinguished from either of the two most closely related species, so that it would be easy enough to characterize it as a new species. The reasons against this are the usual ones, namely, that we have only a single specimen and that if it represented a species that is even only poorly established more specimens should have been obtained in the enormous amount of seining that was done during the same, previous and subsequent summers.

It is entirely possible that we have here a hybrid. There are characters that show a strong affinity for each of the supposed parent species, as well as characters (scales) that are intermediate. Both parent species occur in the lake, Etheostoma caprodes abundantly, Etheostoma aspro sparingly. The most serious objections against considering this a hybrid is the large number of dorsal spines—sixteen—in the dorsal, larger than in either parent species. About 2 per cent., however, of Etheostoma caprodes have sixteen spines in this lake and an occasional specimen is found with seventeen. It should be stated in this connection that I have experimentally obtained healthy fry between *Etheostoma coeruleum* and *Etheostoma nigrum*, two species much more distinct than the assumed parent species. There seems, therefore, to be considerable evidence in favor of the assumption that this is a hybrid.