

INSTITUTE FOR FISHERIES RESEARCH  
UNIVERSITY MUSEUMS  
UNIVERSITY OF MICHIGAN  
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Report No. 109

ON IDENTIFICATION OF SUNFISHES, INCLUDING HYBRIDS, FROM LONOKE FISH  
HATCHERY, LONOKE, ARKANSAS

This report has been prepared at the request of Joe Hogan, Fishculturist of the Lonoke Fish Hatchery, of the Arkansas Game and Fish Commission. The letter accompanying the request for specimens, dated November 30, 1931, reads:

"I am mailing to you today a bottle of sunfish and in it I have two specimens, both alike, for you to identify for us.

"I have sent for comparison, one pumpkin-seed, one bluegill bream and one strawberry bream with the two fish with which we are unfamiliar. This fish is a deep yellow on the belly and the anal fin is fringed in yellow, with a light fringe of yellow on the ventral and caudal fins. The color markings on the sides differ from the other fish and the black ear on the opercle is quite large, compared with the other bream. The coloration on the side is the greatest difference and is easily detected in the live fish. We found but few fish with this marking.

"The pumpkin-seed, blue gill and strawberry bream were the only sunfish seen when we removed the adult stock from the pond and if there were large fish with this different marking I failed to see them. Not finding adult fish with this markings has caused us to think they are hybrids.

"I have put a few individuals in our aquaria to hold until we hear from you as to just what we have found."

The supposition that the two odd sunfish specimens are hybrids is entirely correct, and a good demonstration of Mr. Hogan's ability in observation and reasoning. They are hybrids between the bluegill sunfish and what we call the green sunfish. The hybrids of this type occur in nature throughout the range of the two parent species, but appear to be commonest for some reason in the Southwest.

We know these specimens are hybrids, because we have reared two broods in aquaria, and these specimens produced under controlled conditions are the duplicates of those sent for identification.

We have found the hybrids of this combination to possess a growth rate superior to that of either parent species, as these are represented by their Northern races. Whether the same increased growth rate would hold for the faster growing sunfish of the Southwest is not known to us.

The hybrids of the blue gill and green sunfish have proved in our experience to be infertile and to be nearly all males. While they become large and vigorous fish, the lack of reproductive capacity argues against specific attempts to propagate them.

The fish sent as "strawberry bream" is the one we call "green sunfish" in Michigan. It is known scientifically as Apomotis cyanellus.

The fish sent as "pumpkinseed bream" appears to be an example of the southern species, which has generally been known scientifically as Eupomotis heros. The proper name, however, we believe to be Eupomotis microlophus.

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FISH DIVISION

INSTITUTE FOR FISHERIES RESEARCH

Carl L. Hubbs.

Carl L. Hubbs

Director

Report sent to Mr. Joe Hogan