THE OCCURRENCE OF *NOTROPIS HUBBSI* IN OKLAHOMA

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In 1978 Bailey and Robison (1) described a distinctive new minnow, the bluehead shiner (*Notropis hubbsi*), from the backwaters of tannin-stained, sluggish streams and oxbow lakes of lowland habitats from southern Illinois to northeastern Texas and Louisiana. Although most of the specimens listed (1) were from tributaries to the Ouachita R. in Arkansas, one large collection from the Saline R. in Sevier Co. (Little R. system, Red R. drainage) was also cited, raising the possibility of more extensive westerly distribution in the Little River system.

On 29 June, 1983, D. Meinke, S. Norris, L. Miller, U. Spitzner and I collected 9 adult specimens of *N. hubbsi* from the flooding outlet stream of Forked Lake 11 km S.E. of Eagletown in McCurtain Co., Oklahoma (R26E, T7S, Sec. 11). The unnamed stream, a tributary of the Little R., was receiving water not only from Forked Lake (a very large oxbow 2 miles in length) but also from the swampy lowlands surrounding the lake as a result of recent rains. The water was brown and turbid with a temperature of 25 C. The stream was impossible to seine except for a roughly 2-m^2 area at one side of the culvert. By tossing the seine out beyond the backwater and drawing it back to shore we were able to capture the *N. hubbsi,* along with specimens of *N. maculatus* (in breeding color), *Notemigonus crysoleucas, Erimyzon oblongus,* and *Ictalurus melas.* The *N. hubbsi* were placed in plastic bags and brought back to the OSU fish behavior laboratory for behavioral studies, except for two specimens which were preserved to facilitate morphological analysis.

Our specimens agree in meristic and morphometric characteristics with those tabulated for other populations of the species (1), though slight differences in life colors may indicate some local differentiation. The reddish orange dorsolateral coloration described by Bailey and Robison was very faint in our specimens, whereas our males had bright lemon-yellow membranes (rather than olive yellow) on anal and pelvic fins, and the basal 2/3 of the dorsal fin was yellow (rather than dark). Traces of breeding tubercles were still evident on a few of our males, suggesting that their breeding season had extended quite late into the summer. The Arkansas specimens (Locust Bayou) described by Bailey and Robison were taken in mid-May, but their breeding condition was not described. Dr. Robison (pers. comm.) informed me that the above specimens were in prime breeding condition, but that Arkansas specimens have concluded breeding by late June, when young fish (5-10 mm) appear in the habitat. By late July the type locality is frequently dry, staying that way through early fall. *N. hubbsi* is completely absent until early spring (usually March) when small specimens reappear in the appropriate habitats reconstituted by the spring rains. A pattern of this sort could explain why *N. hubbsi* was unknown for our fauna for so long despite intense collecting by many scientists over the last 30 years.

This record extends the range of the species westward into Oklahoma. The presence of numerous individuals in such a limited sampling area suggests that *N. hubbsi* may occur in significant numbers in appropriate habitats in McCurtain County. It may be, however, that these secretive fishes have very limited and specialized refugia during the dry months in Oklahoma and may be accessible to collecting only briefly during the spring.

REFERENCE

1. R. M. BAILEY and H. W. ROBISON, Occ. Pap. Mus. Zool. Univ. Mich. (683): 1-21 (1978).