

Nesting Site of the Lollypop Darter *Etheostoma neopterum*

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ABSTRACT

Two nests of the lollypop darter *Etheostoma neopterum* were found in tributaries of Birdsong Creek, Benton County, Tennessee, on 15 April 1978. One nest contained 577 eggs, the other 685 eggs. Eggs were deposited on the undersides of stones, as they are in other species of the subgenus *Catonotus*.

Species of the subgenus *Catonotus* (genus *Etheostoma*) deposit adhesive eggs on the undersides of stones, usually in pools of small streams (Page 1975a). Species for which such a nesting site has been reported thus far are *E. flabellare* (Lake 1936, Winn 1958), *E. squamiceps* (Page 1974), *E. kennicotti* (Page 1975b), and *E. smithi* (Page and Burr 1976). Other than species of *Catonotus*, the only darters known to use the undersides of stones as nesting sites are *E. (Boleosoma) olmstedii* (Atz 1940), *E. (B.) nigrum* (Winn 1958), and *E. (Nothotus) maculatum* (Raney and Lachner 1939).

Howell and Dingerkus (1978) made observations on *E. (Catonotus) neopterum* in Little Butler and Butler creeks (Shoal Creek system, Tennessee and Alabama) where there is a paucity of slab stones.



FIG. 1. *Etheostoma neopterum* male and his nest of eggs on the underside of a stone removed from a stream on 15 April 1978. The male was guarding the eggs prior to their removal from the stream.

They found breeding males and females only under shallow undercut banks in slow water areas of the stream.

On 15 April 1978, we found 2 nests of *E. neopterum* in tributaries of Birdsong Creek (Tennessee River drainage), Benton County, Tennessee. Each nest was on the underside of a stone near the center of the stream in slow current and was guarded by a male. One nest in 9 cm of water, guarded by a 58-mm SL male, contained 577 eggs. The other, guarded by a 65-mm SL male, contained 685 eggs (Fig. 1) and was at a depth of 20 cm. Water temperatures were 14 and 15 C, respectively.

On one nest, several eggs had been laid on top of other eggs. For other species of *Catonotus*, eggs were found to have been deposited only in a single layer. Presumably insufficient space for additional eggs on the exposed underside of the stone necessitated the addition of a second layer.

In one of the tributaries in which a nest of *E. neopterum* was found, *E. kennicotti* was common. However, no nests of *E. kennicotti* were found and the species apparently had not commenced spawning. In the other tributary, *E. neopterum* was the only species of *Catonotus* found.

Etheostoma neopterum uses the undersides of stones as nesting sites as does its closest relative, *E. squamiceps*. It is likely that study of the breeding behavior of *E. neopterum* will demonstrate that, as in *E. squamiceps*, spawning is accomplished in a head-to-head position with both the male and female inverted for only a few seconds (Page 1974).

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