

RANGE EXTENSIONS OF THE ORANGETHROAT DARTER (*ETHEOSTOMA SPECTABILE*) AND THE FRECKLED MADTOM (*NOTURUS NOCTURNUS*) INTO WESTERN OKLAHOMA

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On 14 May 1979 we collected two specimens of *Etheostoma spectabile* (both males, 45 and 47 mm standard length) and one specimen of *Noturus nocturnus* (72 mm standard length) with a backpack electrofishing unit (Smith-Root Type VII) from Cobb Creek in Caddo County, 3 river km downstream from Fort Cobb Dam, near state highway 146 (section 26, T8N, R12W). Approximately 300 m of stream were sampled. *E. spectabile* was collected in the only riffle area of the stream in this reach. *N. nocturnus* was collected near submerged logs in a silt-bottom pool. Water temperature was 19 C and Secchi disc transparency was 30 cm. *E. spectabile* was also collected by seining in the Washita River in Roger Mills County (NE corner of section 33, T14N, R24W) about 8 km northwest of Cheyenne on 6 June 1979. In the stream reach (31 m long) that was sampled, a female *E. spectabile* (44 mm standard length) was collected in a riffle among vegetation and shoreline debris. In the area of capture the average depth was 41 cm, substrate was large gravel, average surface velocity was 130 cm/s, stream width was 3.2 m, and turbidity was 21 JTU. The identifications of the specimens were confirmed by Rudolph J. Miller, Oklahoma State University, and W. Ralph Taylor (*N. nocturnus*), Smithsonian Institution. The specimens were deposited in the Oklahoma State University Museum of Zoology [Reference Numbers 11268, 11269 (*E. spectabile*), 11272 (*N. nocturnus*)].

According to Miller and Robison (1) the range of the orangethroat darter, *E. spectabile*, in southern Oklahoma extends only as far west as Deep Red Run, West Cache, and Cache creeks in Cotton, Comanche, and eastern Tillman counties. Their range map (1) indicates that in the Washita River system, *E. spectabile* has been previously found and is likely to be found only in the lower Washita system and then only as far north and west as Garvin County. However, Distler (2) reported that a specimen of *E. spectabile* was collected by A. W. Whipple (3) from a tributary of the upper Washita River in Custer County, but Distler was unable to verify its occurrence there during collecting trips to the headwaters of the Washita River and southern tributaries of the South Canadian River in 1962 and 1964. Miller and Robison (1) reported that the range of the freckled madtom, *N. nocturnus*, extends only as far west as Johnston and Marshall counties in south-central Oklahoma.

It is unlikely that the range of *E. spectabile* is expanding since most of the Washita River consists of unsuitable habitat (low-velocity pools with sand, silt, and mud bottoms). Since most darters do not move over great distance (4), populations of *E. spectabile* probably now exist and previously existed in few areas of suitable habitat in the upper regions of the Washita River system. Since much of the habitat of the upper Washita River is similar to the habitat of *N. nocturnus* described by Cross (5) and Smith (6), it is likely that this species now exists and previously existed in the upper Washita River system. This range extension does not indicate that *N. nocturnus* is expanding its range. Limited sampling and low population densities in the streams of western Oklahoma probably precluded the earlier discovery of *E. spectabile* and *N. nocturnus*; further sampling is necessary to delimit their distributions.

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