

Extension of Ranges into Kiowa County, Oklahoma, for the Dusky Darter (*Percina sciera*) and the Freckled Madtom (*Noturus nocturnus*)

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On April 5, 1990, we collected four *Percina sciera* and seven *Noturus nocturnus* from Rainy Mountain Creek, Kiowa Co., Oklahoma, 100 m north of state Highway 9 bridge (Section 12, T7N, R15W). The creek flows into the Washita River 1 km northeast of the collection site. Approximately 100 m of the creek was sampled. The site had an average depth of 1 m and an average width of 3 m. The specimens were collected in kick sets with a 4.6-m seine having 9.5-mm mesh. The creek was highly turbid, and the substrate was mud and silt with patches of gravel upstream and adjacent to larger deposits of woody debris. The *P. sciera* were collected from these gravel patches, its typical habitat substrate (1 - 3). The *N. nocturnus* were collected around woody debris, an acknowledged habitat (4, 5). The specimens were deposited in the Oklahoma Museum of Natural History, University of Oklahoma.

Miller and Robison (6) showed the range of *N. nocturnus* in the Red and Arkansas River drainages in the eastern half of Oklahoma. Orth and Jones (7) extended the known range to the Washita River drainage by the collection of one specimen from Cobb Creek in Caddo Co. (Section 26, T8N, R12W). Orth and Jones (7) speculated that *N. nocturnus* probably has a viable population in the upper Washita River system. Our finding supports this idea, as *N. nocturnus* has a reported life span of only 4+ years (5), and Orth and Jones (7) made their original finding in 1979. These authors concluded that low population densities and little sampling in western Oklahoma had led to limited findings in the western range. More collections in western Oklahoma, particularly in the Washita drainage, are needed to define the western limits of *N. nocturnus*.

Miller and Robison (6) showed the distribution of *P. sciera* in the Oklahoma drainage of the Red River, westward to Lake Texoma, and covering the southeastern third of the state. *Percina sciera* was first collected from the Washita River by Jimmie Pigg (pers. comm.) on July 14, 1983, 8 km NE of Dickson in Carter Co. (Section 3, T4S, R3E). These specimens were cataloged as #1165 in the Oklahoma State Department of Health (OSDH) fish collection in Oklahoma City. The previous most northwest collections of *P. sciera* in the Washita River drainage were also by Jimmie Pigg (pers. comm.) on July 31, 1987, and July 29, 1988; four specimens were collected from the Washita River north of Pauls Valley on Highway 177 in Garvin Co. (Section 1, T3N, R1W). These specimens were cataloged as #2783 and #3108, respectively, in the OSDH fish collection in Oklahoma City.

The *P. sciera* we collected were in highly turbid water. *P. sciera* is generally considered a clear or low-turbidity stream inhabitant (2, 5, 8) except for the endemic Guadalupe dusky darter (*P. sciera apristis*), which Hubbs (9) reported common in high-turbidity water. Suttkus and Ramsey (3) found *P. sciera* moving into areas of increased turbidity to spawn. It is probable that *P. sciera* in Oklahoma are not limited by water turbidity, and distribution depends on other habitat features such as substrate, which Page (1) considered the most restrictive habitat characteristic for darters.

Darters are not known for long-range migrations (1) so it is reasonable to conclude that the Washita River drainage was omitted from the previous known range for *P. sciera* because of sparse sampling of western Oklahoma drainages. It is likely that in areas with appropriate habitat *P. sciera* have been and are currently inhabiting the Washita River drainage. Further sampling is needed to determine the distribution and densities of *P. sciera* in western Oklahoma.

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