

A NEW STATE RECORD FOR PERCINA PHOXOCEPHALA (PERCIDAE) IN  
NORTHEASTERN TEXAS  
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Herein I report the first collection of Percina phoxocephala, the slenderhead darter, in Texas. A single representative of this species was collected on 14 October 1994 in Sanders Creek, Lamar County, Texas, 2.4 miles west of Arthur City on Texas Highway 197 (95° 32' long., 33° 52' lat.). Sanders Creek is a southern tributary of the Red River that extends to Pat Mayse Lake as a perennially flowing stream. This locality is approximately 10 km south and east of the nearest known locality of P. phoxocephala in Boggy Creek, an Oklahoma tributary of the Red River (Turner et al., 1996). This specimen was taken at 11:30 am by seine at a 3 meter wide stretch of the creek, at 0.5 m. depth, in clear water with gentle current over mud and small rocks.

I propose the occurrence of P. phoxocephala in northeastern Texas is the result of a natural dispersal via the Red River in Oklahoma. This is a reasonable hypothesis given the natural history of slenderhead darters and their propensity for dispersal. Slenderhead darters are bottom-dwelling fishes that primarily inhabit riffles and gravel raceways (Page, 1983). They are found in deeper waters of medium-sized rivers during the winter months and migrate upstream to spawn during the spring (Page and Smith, 1971; Bart and Page, 1992). The slenderhead darter populations in Oklahoma tributaries of the Red River probably over-winter in the Red River proper. Therefore, migration from the Red River up into Sanders Creek in the springtime would be expected.

The slenderhead darter found during this survey collection suggests the presence of a population in Sanders Creek. I found no previous museum records for Sanders Creek and the most recently recorded collections in the county in the Texas Memorial Museum were

collected in 1989. None of these collections were taken from Sanders Creek and they did not document the presence of Percina phoxocephala in nearby areas.

Often range extensions can be traced to human mediated introductions such as the release of bait fish by fishermen. However, I do not believe the appearance of P. phoxocephala in Sanders Creek is a result of introduction by fisherman because they are not commonly used as bait and would not be easily kept alive for lengthy periods in bait containers.

The following characteristics were used for identification of this specimen: dorsal rays = 14 soft + 10 spines, 13-15 dorsal saddles; snout-gill junction = 8.28 mm; gill junction-front of pelvic base = 7.02 mm, frenum absent, anal rays = 8, eye diameter = 3.17 mm, snout = 3.42 mm, 72 lateral line scales, 51.0 mm S.L. This specimen has been deposited in the Texas Memorial Museum (TNHC # 23621).

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#### LITERATURE CITED

Bart, Jr., H. L., and L. M. Page. 1992. The influence of size and phylogeny on life history variation in North American percids. In: Mayden, R., editor. Systematics, Historical Ecology, & North American Freshwater Fishes. Stanford University Press, Stanford, California. Pp.566, 20.

Page, L. M. 1983. Handbook of Darters. T. F. H. Publications, Inc. Ltd., Neptune City, N. J. Pp. 35.

Page, L. M., and P. W. Smith. 1971. The life history of the slenderhead darter, Percina phoxocephala, in the Embarras River, Illinois. Illinois Natural History Survey Biological Notes 74: 1-14.

Turner, T. F., J. C. Trexler, D. N. Kuhn, and H. W. Robison. 1996. Life-history variation and comparative phylogeography of darters (Pisces: Percidae) from the North American central highlands. *Evolution* 50:2023-2036.

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