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New Geographic Distribution Records for the Flier, *Centrarchus macropterus* (Perciformes: Centrarchidae), from Southwestern Arkansas

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The flier, *Centrarchus macropterus* (Lacépède) is a deep-bodied and slab-sided sunfish with a moderately large mouth, seldom exceeding 20 cm in length and 400 g in weight. Fliers feed primarily on copepods, aquatic insects, and small fishes, particularly young bluegills, *Lepomis macrochirus* (Conley, 1966). This fish ranges from eastern Virginia south to northcentral Florida and west throughout much of the Gulf Coastal Plain to eastern Texas and the Mississippi Valley, and north to southern Illinois (Lee and Gilbert, 1980). It prefers lowland habitats with clear, heavily vegetated water without noticeable current. In Arkansas, the flier is sporadically distributed in all the major drainages of the Gulf Coastal Plain lowlands and is most common in the southcentral part of the state (Robison and Buchanan, 1988). This fish is also known from the Oklahoma portion of this drainage (Miller and Robison, 2004), and the Red River drainage of Texas (Hubbs et al., 1991).

Meyers (1977) initially surveyed the fishes of the Little Missouri River system (Ouachita River drainage), but did not report any fliers. Robison and Buchanan (1988) did not show any flier records from the Little Missouri River system in their species account of *C. macropterus*. However, they apparently overlooked the unpublished records of Loe (1983) who did a subsequent survey of the Little Missouri River system after Meyers's (1977) survey. In addition, Loe (1983) collected five fliers from two localities in the lower Little Missouri system. Herein, this report presents additional records for the species that have been collected since Robison and Buchanan's (1988) species account representing new locality records of *C. macropterus* from the Arkansas portion of the Little River system (Red River drainage).

Between July 1982 and November 2003, fliers were collected in nylon seines (6 x 1.5 m and 9 x 1.5 m of 3.2 mm mesh) or dipnets from localities in five counties (Clark, Howard, Little River, Nevada, Sevier) of southwestern Arkansas. Fishes were preserved in 10% formalin and later transferred to 70% ethanol. All fliers were identified in the laboratory, and voucher specimens were deposited in the collections at Southern Arkansas University, Magnolia and The University of Louisiana-Monroe Museum of Natural History.

A total of 24 fliers (11 adults, two juveniles, 11 young-of-year) was collected from 10 sites in southwestern Arkansas

(see Table 1). All of these represent new geographic records and the first published locality records of *C. macropterus* from the Arkansas portion of the Little River system (Red River drainage). The overall distribution of the flier in Arkansas with our additional records is shown in Fig. 1. It reveals that this fish is now known to inhabit a broader area of the southwestern part of the state, and has filled a distributional gap in its range from historical sites in the southcentral region of Arkansas (see Robison and Buchanan, 1988). Most recently, however, Buchanan et al. (2003) did not report any fliers from various sites on the main channel of the Red River watershed in Arkansas. This strongly suggests that the flier avoids larger rivers and prefers smaller feeder streams with standing-water habitat in the Gulf Coastal Plain of the state.

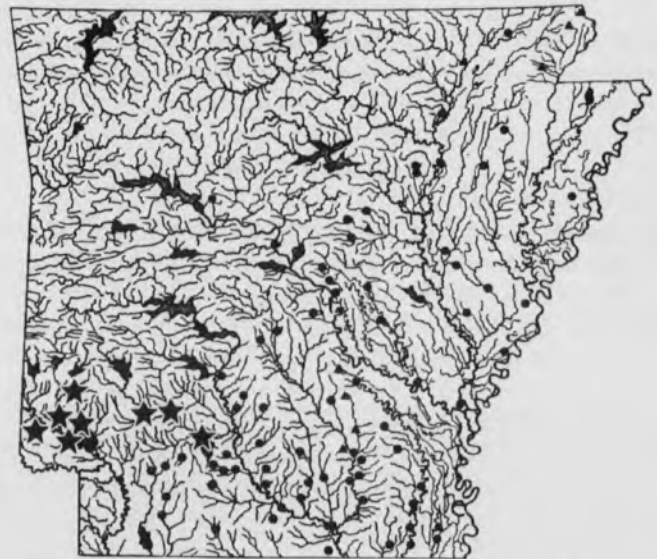


Fig. 1. Distribution of *Centrarchus macropterus* in Arkansas. New records (stars); previous records (pre-1960, triangles; 1960-1987, dots) adapted from Robison and Buchanan (1988).

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Table 1. Flier collections in southwestern Arkansas, July 1982-November 2003.

Date	Collector	Localities and Sample Sizes (parentheses); Township, Range, Section
23 July 1982	R. A. Loe	Nevada Co., 3 mi N Bluff City, St. Hwy. 24, T11S, R20W, Sec. 22 (n = 4)
19 Feb. 1983	R. A. Loe	Nevada Co., 9 mi N Prescott, St. Hwy. 19, Middle Creek, T11S, R20W, Sec. 27 (n = 1)
22 July 1990	H. W. Robison	Little River Co., 3 mi SE Alleene, Miller Creek T11S, R31W, Sec. 32 (n = 1)
21 Sept. 1990	H. W. Robison	Little River Co., St. Hwy. 234, Winthrop, T11S, R31W, Sec. 7 (n = 2, young-of-year)
16 June 1992	H. W. Robison	Sevier Co., 2 mi W Lockesburg, St. Hwy. 24, Cossatot River, T9S, R30W, Sec. 22 (n = 1)
5 Sept. 1993	H. W. Robison	Little River Co., backwater Little River, U.S. Hwy. 71, T11S, R29W, Sec. 30 (n = 5 young-of-year)
10 Sept. 1994	H. W. Robison	Sevier Co., 1 mi S Paraloma, St. Hwy. 234, Millwood Lake, T11S, R28W, Sec. 20 (n = 2 juveniles)
8 August 2001	H. W. Robison	Howard Co., 3 mi E Bright Star, Saline River, T11S, R28W, Sec. 10 (n = 3 young-of-year)
28 June 2002	H. W. Robison	Howard Co., 11 mi W Nashville, St. Hwy 24, Saline River, T9S, R28W, Sec. 24 (n = 1)
19 Sept. 2003	S. F. Barclay	Clark/Nevada Co. line, off I-30, off St. Hwy. 51 on Bunn Rd., Little Missouri River, T10S, R21W, Sec 6 (n = 2, [1 adult, 1 young-of-year])
22 Nov. 2003	S. F. Barclay	same locale as above (n = 2)

Literature Cited

- Buchanan, T. M., D. Wilson, L. G. Claybrook, and W. G. Layher.** 2003. Fishes of the Red River in Arkansas. *J. Arkansas Acad. Sci.* 57:18-26.
- Conley, J. M.** 1966. Ecology of the flier, *Centrarchus macropterus* (Lacépède) in southeast Missouri. Unpublished M. S. Thesis. University of Missouri, Columbia, MO. 199 pp.
- Hubbs, C., R. J. Edwards, and G. P. Garrett.** 1991. An annotated checklist of the freshwater fishes of Texas, with keys to identification of species. *Texas J. Sci.* 43 (Suppl.):1-56.
- Lee, D. S., and C. R. Gilbert.** 1980. *Centrarchus macropterus*. P. 583 In *Atlas of North American Freshwater Fishes* (D. S. Lee et al., eds). North Carolina State Museum of Natural History, Raleigh. x + 854 pp.
- Loe, R. A.** 1983. A subsequent study of the fishes of the Little Missouri River, west central Arkansas. Unpublished M.S. Thesis, Northeast Louisiana University, Monroe, LA. 139 pp.
- Meyers, J. W.** 1977. Fishes of the Little Missouri River, southwest Arkansas. Unpublished M.S. Thesis, Northeast Louisiana University, Monroe, LA. 25 pp.
- Miller, R. J., and H. W. Robison.** 2004. Fishes of Oklahoma. University of Oklahoma Press, Norman, OK. 450 pp + ix.
- Robison, H. W., and T. M. Buchanan.** 1988. Fishes of Arkansas. University of Arkansas Press, Fayetteville, AR. 536 pp.