

# Historical and New Records of the Goldstripe Darter, *Etheostoma parvipinne*, in Oklahoma

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Some fish species in the lowlands of southeastern Oklahoma are considered rare in the state, including the goldstripe darter, *Etheostoma parvipinne* (1,2). Although recent publications have documented new collections for a few of these rare fishes (3,4), there are none for *E. parvipinne*. Recent publications show *E. parvipinne* in only two bodies of water in Oklahoma, Gates Creek and Mountain Fork River (5,6). In this paper, we summarize all known Oklahoma records for *E. parvipinne*.

## HISTORICAL RECORDS

We searched the literature and the following university museums for Oklahoma records of *E. parvipinne*: Alabama, Cornell, Florida, Harvard, Illinois Natural History Survey, Kansas, Michigan, Oklahoma, Oklahoma State, and Texas. We found 22 collection records from 16 bodies of water in Oklahoma (Table 1). We only found five reports documenting original collections of *E. parvipinne* in the state. The first records of *E. parvipinne* in Oklahoma are based on collections in 1948 from Gates Creek by Moore and Cross (7), and from the Mountain Fork River by Rigney (7). Finnell and coworkers during a 1955 survey (8) collected *E. parvipinne* from four tributaries of the Little River system. Other darters collected from these sites included the orangebelly darter (*E. radiosum*; all 4 sites) and the slough darter (*E. gracile*; 2 sites)(8). Blair and Lindsay (9) anecdotally noted collecting *E. parvipinne* from a swamp in McCurtain County. Pigg and Hill (10) collected one specimen of *E. parvipinne* during a 1972-73 survey of the Kiamichi River. Other darters collected from this site where *E. parvipinne* was captured were *E. radiosum* and the logperch (*Percina caprodes*) (J. Pigg, unpublished data). Pigg (11) also collected one specimen of *E. parvipinne* during a 1974-75 survey of the Muddy Boggy River. Other darters collected from the same site where *E. parvipinne* was captured were *E. gracile*, *E. radiosum*, and the bluntnose darter (*E. chlorosomum*) (J. Pigg, unpublished data).

## NEW RECORDS

We are aware of only two records for *E. parvipinne* in Oklahoma since 1982 (Table 1). In a 1997 of the Blue River, Lemmons and Hood (unpublished data) collected three specimens of the species from a riffle of Red Branch Creek (Bryan Co.: T7S R12E S25). At this lowland site, the creek had a mean width of 3.4 m, a mean depth of 46 cm, and substrata of clay, sand, mud/silt, gravel and introduced cobble. The site was partially shaded and had no in-stream vegetation. No other darters were collected at this site.

Also in 1997, R. Lemmons and C. Lemmons (unpublished data) collected one specimen of *EE. parvipinne* from a riffle of Holly Branch Creek, a small, lowland tributary of the Red River less than 1.6 km upstream from their confluence, (McCurtain Co.: T9 R25E S32). The creek at this site had a mean width of 4.0 m, a mean depth of 25 cm, and substrata of mud/silt, gravel, and cobble. In addition glass bottles/jars and metal cans were present because the site had been used at one time as an illegal trash dump. It was completely shaded and had no in-stream vegetation. Other darters collected were *E. gracile*, the cypress darter (*E. proeliare*), *P. caprodes*, and the dusky darter (*P. sciera*).

*Etheostoma parvipinne* currently has a larger historical range in Oklahoma than indicated by earlier reports (1,2,5,6). Nonetheless, the species is uncommon in collections, and we agree with Robison and coworkers (2) that it should be considered rare in Oklahoma, although it is more

TABLE 1. Records of *Etheostoma parvipinne* in Oklahoma.

Water Body <sup>a</sup>	Date	County	Location <sup>a</sup>	Museum Number <sup>b</sup>	Number of Specimens
<b>Blue River</b>					
Red Br. Cr.	06/1997	Bryan	2.8 km W of Hwy 70E	OKMNH— <sup>c</sup>	3
<b>Muddy Boggy River</b>					
W Br. Caney Cr. <sup>d</sup>	05/1975	Atoka	T3S R11E S24N	————	1
bogs <sup>e</sup>	1967	Atoka	NW and SW Boehler	————	20
<b>Kiamichi River</b>					
Gates Cr.	05/1948	Choctaw	Fort Towson	UMMZ 145060	2
Gates Cr.	06/1948	Choctaw	Fort Towson	CU 24441	1
Gates Cr.	05/1950	Choctaw	Fort Towson	OSUS 4695	1
Gates Cr.	07/1973	Choctaw	T3S R20E S6	OKMNH 41446	1
<b>Little River</b>					
unnamed tributary <sup>f</sup>	06/1955	McCurtain	T7S R26E S8	OKMNH 30938	2
Buck Cr. <sup>f</sup>	06/1955	McCurtain	T7S R27E S16	OKMNH 31030	2
swamp <sup>g</sup>	—	McCurtain	Hwy 70 bridge	————	—
Pine Cr.	09/1972	Choctaw	N Swink	OSUS 902563	5
Pine Cr.	06/1975	Choctaw	11.3 km N Swink	OSUS 901764	8
Pine Cr.	08/1975	Choctaw	11.3 km N Swink	OSUS 902030	7
mainstream	08/1975	McCurtain	4 km SW Golden	OSUS 902136	1
Steven's Cr.	07/1982	McCurtain	W Wright City	OSUS 13526	1
unnamed tributary	07/1982	McCurtain	8.1 km W Forked L.	OSUS 12859	22
<b>Mountain Fork River</b>					
mainstream <sup>h</sup>	08/1948	McCurtain	T7S R26E S10	OKMNH 26254	1
mainstream <sup>h</sup>	08/1948	McCurtain	W Forked L.	OSUS 289882	1
unnamed tributary <sup>f</sup>	1955	McCurtain	T6S R26E S18	————	—
unknown	—	McCurtain	near mouth	OSUS 5593	1
<b>Rolling Fork River<sup>i</sup></b>					
Two-mile Cr. <sup>f</sup>	06/1955	McCurtain	T6S R27E S5	OKMNH 37469	2
<b>Red River mainstream</b>					
roadside pool	04/1967	McCurtain	1.6 km S Tom	OSUS 900387	1
unnamed spring	11/1971	McCurtain	2.4 km S Tom	OSUS 24193	—
Clear Cr.	09/1975	Choctaw	Swink	OSUS 901969	4
Holly Br. Cr.	08/1997	McCurtain	1.5 km S of Harris	OKMNH— <sup>c</sup>	1

<sup>a</sup>Br., branch; Cr., creek; L., lake.

<sup>b</sup>OKMNH = Oklahoma Museum of Natural History; OSUS = Oklahoma State University Collection of Vertebrates; UMMZ = University of Michigan Museum of Zoology; CU = Cornell University.

<sup>c</sup>Museum number temporarily unavailable due to upgrades of archival software (E. Marsh-Matthews, personal communication).

<sup>d</sup>Location from unpublished field notes of J. Pigg. The specimen is lost.

<sup>e</sup>Account given by Pigg (11).

<sup>f</sup>In Finnell and coworkers (8).

<sup>g</sup>In Blair and Lindsay (9).

<sup>h</sup>We counted these as one record because they are from the same day and appear to be from a collection by Carl Rigney (OKMNH record lists "Moore and Rigney"), although together they do not match the one specimen reported captured (7).

<sup>i</sup>A drainage that joins the Little River in Arkansas.

abundant elsewhere, e.g., Alabama (12). There are indications that *E. parvipinne* has disappeared from historical areas of occurrence in Oklahoma. It was not found in post-impoundment surveys of the Mountain Fork River (13). Also, recent investigations of Gates Creek below Lake Raymond Gary did not produce any specimens; the creek bed was mainly dry except for a few pools dominated by centrarchids (J. Pigg, unpublished data). *Etheostoma parvipinne* may be extirpated from these areas because of its intolerance to changes in water quality and habitat (14).

### ACKNOWLEDGEMENTS

We thank M. J. Hood and C. Lemmons for assistance in field collections. We also thank D. Hough and Dr. A. A. Echelle for providing museum records.

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Received: March 2, 1999; Accepted: April 23, 1999.