

BUCK DARTER DESCRIBED BY FRIEND OF NANFA TOM NEAR AND NANFA MEMBER MATT THOMAS



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Etheostoma nebra, the Buck Darter, is described as a new species endemic to the Buck Creek system of the Cumberland River drainage in Kentucky, USA. The earliest collection records of *E. nebra* date to 1955 and were considered a population of *E. virgatum*. *Etheostoma nebra* is delimited through morphological comparisons with *E. virgatum* and phylogenetic analyses using DNA sequences from a mitochondrial gene and five nuclear genes. *Etheostoma nebra* is distinguished from *E. virgatum* by a lower number of total lateral scales, fewer pored lateral scales and modally 13 compared with 12 pectoral fin rays. The two species also differ in patterns of pigmentation and nuptial male coloration. In the molecular phylogenies, *E. nebra* is not resolved as the sister species of *E. virgatum*. A review of all museum collection records of *E. nebra* and extensive field

surveys in the Buck Creek system demonstrate a dramatic decline of the species over the past 30 years. Collections made from 1955 to 1981 show that *E. nebra* was widespread throughout the Buck Creek system, but the species is currently restricted to a small portion of Flat Lick Creek. *Etheostoma nebra* is critically imperiled based on its restricted geographic distribution and documented disappearance of populations within the Buck Creek system during the past three decades.

The above is the abstract of “A New Barcheck Darter Species from Buck Creek (Cumberland River System), Kentucky (Percidae: Etheostomatinae: *Catonotus*: *Oopareia*),” published in *Bulletin of the Peabody Museum of Natural History*. 2015. 56(2): 127–146.



Live adult male and female specimens of *Etheostoma nebra* and *E. virgatum*. A, *Etheostoma nebra* paratopotype, YPM ICH 27039, 55 mm SL male, Flat Lick Creek, Pulaski Co., Kentucky, 8 April 2010; B, *E. nebra* paratopotype, YPM ICH 026966, YFTC 24305, 44 mm SL female, Flat Lick Creek, Pulaski Co., Kentucky, 13 May 2014; C, *E. virgatum*, YPM ICH 027042, 53 mm SL male; D, *E. virgatum*, YPM ICH 027042, 42 mm SL female, both Birch Lick Creek, Jackson Co., Kentucky, 29 June 2009.