

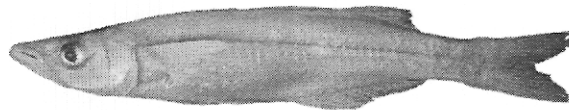
Threatened fishes of the world: *Chirostoma aculeatum* Barbour, 1973 (Atherinopsidae)

Devin D. Bloom · Kyle R. Piller · John Lyons ·
Norman Mercado-Silva

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Abstract *Chirostoma aculeatum* is a rare silverside found only in central Mexico. Its conservation status is considered in addition to providing information regarding its ecology, life history, and distribution.

Keywords Atherinopsidae · *Chirostoma* ·
Mesa Central · Mexico · Silversides



Common names: Scowling silverside, charal cuchillo (Nelson et al. 2004). Conservation status: Listed as Endangered by American Fisheries Society and vulnerable by Lyons et al. (1998). Identification: *Chirostoma aculeatum* is characterized by a slender body and an elongated, pointed snout (max SL 109 mm; Barbour 1973). It can be distinguished from other species of *Chirostoma* by a gap in the bite when the mouth is closed and un-crowded predorsal scales (Barbour 1973; Miller 2005). Distribution: The lower and middle Rio Lerma and its tributaries in central Mexico, however most available records are from in the Rio Turbio, a tributary to the Rio Lerma. There are also unconfirmed reports from the mouth of the Rio Lerma in Lake Chapala. Abundance: Absent in the lower Rio Lerma basin but still present as of 1993 in the middle part of the basin (Soto-Galera et al. 1998). However, in January 2004–2006 visits were made to historical localities of *C. aculeatum* and no specimens were found. Habitat and ecology: *Chirostoma aculeatum* occurs in rivers, lakes and small streams. Reproduction: Nothing is known. Threats: Habitat degradation is the primary cause of decline given its restricted range. The Rio Lerma basin has been subjected to intensive irrigation, disposal of untreated

D. D. Bloom (✉) · K. R. Piller
Department of Biological Sciences,
Southeastern Louisiana University,
Hammond, LA 70454, USA
e-mail: devin.bloom@selu.edu

J. Lyons
University of Wisconsin Zoological Museum,
Madison, WI, USA

N. Mercado-Silva
Departamento de Ecología Funcional,
Instituto de Ecología, A.C.,
Xalapa, Veracruz, Mexico

N. Mercado-Silva
Center for Limnology, University of Wisconsin-Madison,
Madison, WI, USA

waste-water, industrial use, and human consumption (Lyons et al. 1998; Soto-Galera et al. 1999; Mercado-Silva et al. 2006). In recent years much of the Rio Turbio has been reduced to a series of small stagnant pools in a mostly dry river bed, and the few flowing reaches have very poor water quality. Conservation action: None. Conservation recommendation: An extensive survey should be conducted to determine the current abundance of remaining *C. aculeatum* (if any remain). The protection and improvement of habitat quantity and quality would likely be the most beneficial pro-active solutions in restoring *C. aculeatum* populations.

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