

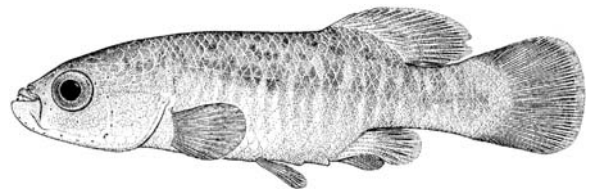
## Threatened fishes of the world: *Allotoca goslinei* Smith and Miller, 1987 (Goodeidae)

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**Keywords** Mexico · Invasive · Competition ·  
Extinction · Splitfins · *Xiphophorus hellerii*

**Common Names:** banded allotoca, tiro rayado (Sp.).  
**Conservation status:** Endangered (Williams et al. 1989).  
**Identification:** ML 50 mm, distinguished from congeners by 15 narrow vertical bars (Smith and Miller 1987). Illustration by S. Fink. **Distribution:** Two localities on Arroyo Potrero Grande, Ameca tributary, Jalisco, Mexico. **Abundance:** Likely extinct in nature: In 2000, *A. goslinei* was the dominant fish at the type locality (ca. 75% proportional abundance). We extensively sampled the tributary in 2005–2006 and found none. **Habitat and ecology:** Associated with plants in shallow pools; likely feeds on small



arthropods based on the diet of its sister species (Dominguez-Dominguez et al. 2002; Doadrio and Dominguez-Dominguez 2004; Webb et al. 2004). Cohabitates with natives: *Allodontichthys polylepis*, *Poeciliopsis infans*, *Scartomyzon austrinus*, *Ilyodon furcoidens* (Wischnath 1993). **Reproduction:** Live-bearer; sexual dimorphism in fin placement and coloration (Smith and Miller 1987). In captivity, sexual maturity reached within 3 months; broods of

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15–20 (Joel Healy personal communication). *Threats*: *Xiphophorus hellerii* invaded the type locality between 2000 and 2004. As its abundance increased between 2000 and 2006, *A. goslinei* abundance decreased ( $r=-0.94$ ,  $n=4$ ). *X. hellerii* is now found throughout the stream. It may have competitively displaced *A. goslinei* since stream habitat quality did not noticeably change (our unpublished data; personal communication Ivan Dibble); both species likely compete for prey (Arthington 1989); are similar size/morphology (Miller et al. 2005). *Conservation action*: The Universidad Michoacana de San Nicolás de Hidalgo, the Acuario Nacional de Peces Mexicanos del Zoológico de Mexquitic, and U.S./European aquaria hobbyists should maintain their captive populations (HALCP 1998). *Conservation recommendation*: The Mexican government (SEMARNAT 2002) and IUCN (IUCN 2007) should designate it as endangered.

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