



***Xenotoca doadrioi* & *X. lyonsi* • Two New Species of the Genus *Xenotoca* Hubbs and Turner, 1939 (Teleostei, Goodeidae) from central-western Mexico**

Xenotoca doadrioi* & *X. lyonsi

Domínguez-Domínguez, Bernal-Zuñiga, & Piller, 2016

FIGURE 5. a) *Xenotoca doadrioi*, Holotype male CPUM-9589 and female from San Sebastian

b) *Xenotoca lyonsi*, Holotype male CPUM-9590 and female from Tamazula

c) *Xenotoca eiseni*, male and female from Compostela population picture by Wolfgang Gessl [www.pisces.at]

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Abstract

The subfamily Goodeinae (Goodeidae) is one of the most representative and well-studied group of fishes from central Mexico, with around 18 genera and 40 species. Recent phylogenetic studies have documented a high degree of genetic diversity and divergences among populations, suggesting that the diversity of the group may be underestimated. The species *Xenotoca eiseni* has had several taxonomic changes since its description. *Xenotoca eiseni* is considered a widespread species along the Central Pacific Coastal drainages of Mexico, inhabiting six independent drainages. Recent molecular phylogenetic studies suggest that *X. eiseni* is a species complex, represented by at least three independent evolutionary lineages. We carried out a meristic and morphometric study in order to evaluate the morphological differences among these genetically divergent populations and describe two new species. **The new species** of goodeines, ***Xenotoca doadrioi*** and ***X. lyonsi***, are described from the Etzatlán endorheic drainage and upper Coahuayana basin respectively.

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