



***Eudontomyzon graecus*, a new nonparasitic lamprey species from Greece (Petromyzontiformes: Petromyzontidae)**

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Abstract

Eudontomyzon graecus, sp. n., a nonparasitic lamprey from Greece, is restricted to the Louros River drainage, Ionian Sea basin, Epirus Periphery. It is distinguished from *Eudontomyzon hellenicus*, the other nonparasitic Greek brook lamprey, occurring allopatrically in the Strymon River drainage, Aegean Sea basin, Central Macedonia Periphery, by possessing at the adult stage a relatively longer tail and a greater number of bicuspid teeth in both the first row of anterials and posterials, and at the ammocoete stage, by a relatively shorter trunk and longer tail and a less pigmented upper lip, tongue precursor bulb and lateral aspects of the elastic ridge. Taken individually, these three adult and five larval characters, varied in their diagnostic power from 71 to 88% for the adults and from 91 to 97% for the ammocoetes. However, in combination, these characters provide sufficient evidence to justify recognition of this new species, in addition to the wide distance (ca 400 km) separating it from its closest extant relative, as well as its independent origin.

Key words: Epirus brook lamprey, morphology, conservation, Critically Endangered, freshwater

Introduction

Eudontomyzon hellenicus Vladykov, Renaud, Kott & Economidis, 1982, the Greek brook lamprey, was originally described as a nonparasitic species exhibiting a strikingly disjunct distribution. The populations in Louros River and Filippiás Brook (Louros River drainage) belong to the Ionian Sea basin, while the populations in Agiannis Brook of Serres, Kefalári or Kefalárion Brook (type locality) and Milopótamos Brook of Dráma (Strymon River drainage) belong to the Aegean Sea basin. This discontinuity is real and not merely an artifact of incomplete sampling. For more information on the ichthyological situation in continental and peninsular Greece see Bobori & Economidis (2006). Moreover, Renaud (1986), Economidis (1995), and most recently, Kottelat & Freyhof (2007) have brought attention to the fact that the lamprey from the Louros River drainage is morphologically distinct from the one in the Strymon River drainage. Kottelat & Freyhof (2007) further suggested that the lamprey in the Louros River drainage either belongs to an unnamed species or to the nonparasitic *Eudontomyzon stankokaramani* Karaman, 1974. A careful re-examination of the extensive type material of *E. hellenicus* and comparison with published descriptions of *E. stankokaramani* confirmed the former contention. The purpose of this paper is to describe the lamprey from the Louros River drainage as a new species.

Material and methods

The species concept followed here is the evolutionary species concept as described in Kottelat (1997). The new species from the Louros River drainage is based on the description of 18 ammocoetes and 26 adults.