



LAMPREYS OF THE WORLD

AN ANNOTATED AND ILLUSTRATED CATALOGUE OF
LAMPREY SPECIES KNOWN TO DATE





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by

Claude B. Renaud
Canadian Museum of Nature
Ottawa, Canada

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PREPARATION OF THIS DOCUMENT

This catalogue was prepared under the FAO Fisheries Department Regular Programme by the FishFinder Programme in the Marine Resources Service of the Fishery Resources Division. Financial support came from the Canadian Museum of Nature.

It represents the first comprehensive and updated publication concerning the Lampreys (order Petromyzontiformes), providing an identification key for the adults, a partial key for the larvae as well as an account for all species.

Lampreys are an evolutionary ancient group of jawless vertebrates displaying a temperate distribution. A number of lamprey species are of significant interest to fisheries and most of them play an important ecological role in their habitats. They are a food source for numerous species and the parasitic species can affect the distribution and abundance of some commercially important fishes. In the last decades, the populations of lampreys have dramatically declined due to human disturbances to the extent that, to date, many of them are threatened or endangered. In this context, management and conservation plans are being carried out for several species all over the world. Given that correct identification is of primary importance in resource management, the purpose of this catalogue is to help fishery workers and conservation biologists to identify the 39 species belonging to this order.

The author, Dr. Claude B. Renaud, is a research scientist at the Canadian Museum of Nature. He is an internationally recognized expert on lamprey taxonomy, systematics and morphology as confirmed by the large number of scientific articles published in the last 30 years.

Programme manager: Johanne Fischer (FAO, Rome)

Technical editor: Edoardo Mostarda (FAO, Rome)

Scientific illustrator: Emanuela D'Antoni (FAO, Rome)

Digitization of distribution maps: Fabio Carocci (FAO, Rome)

Desktop publishing: Enzo Luchetti

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ABSTRACT

Lampreys are aquatic, jawless vertebrates belonging to the Order Petromyzontiformes. The order comprises 39 species widely distributed in the Northern and Southern hemispheres, but virtually absent in the intervening tropical zone. There is one family in the Northern Hemisphere (Petromyzontidae) comprising 35 species and two families in the Southern Hemisphere (Geotriidae and Mordaciidae) comprising, respectively, one and three species. Lampreys undergo a radical metamorphosis from the larval to the adult form. While lamprey larvae (ammocoetes) of all species are very similar in their habits (filter-feeding on microorganisms in a freshwater habitat), the adults vary considerably in their mode of life. Some are parasitic and anadromous, others parasitic but restricted to fresh water, while still others are nonparasitic (non-feeding) and restricted to fresh water. The taxonomic characters used to describe ammocoetes and adults are fully explained and illustrated. A key to adults and a partial key to larvae are presented. This catalogue provides an account for each of the 39 species. Each species account gives information on the taxonomy including synonyms, common names, diagnostic features of ammocoetes and adults (with drawings of the adult body and oral disc), habitat and biology, geographic distribution (with map), interest to fisheries and references.

Distribution

Authors
FAO Fisheries Officers
Regional Fisheries Councils and Commissions
Selector SC

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¹ The information on this new species became available too late in the publishing process to make any changes to the species accounts or keys. Reference: Renaud, C.B. and P.S. Economidis. 2010. *Eudontomyzon graecus*, a new nonparasitic lamprey from Greece (Petromyzontiformes: Petromyzontidae). *Zootaxa* 2477: 37–48.

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