



The Sri Lankan spiny eel, *Macrogathus pentophthalmos* (Teleostei: Mastacembelidae), and its enigmatic decline

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Abstract

The Sri Lankan population of the spiny eel previously assigned to *Macrogathus aral* Schneider (Teleostei: Mastacembelidae) is shown to be a distinct species, for which the name *M. pentophthalmos* Gronow is available. *Macrogathus pentophthalmos* is distinguished from its closest congener, *M. aral*, by having 14–16 dorsal spines and a pre-dorsal length of 43.3–46.8% of standard length (SL) (vs. dorsal spines 18–22 and pre-dorsal length 35.5–40.8% SL in *M. aral*). *Macrogathus pentophthalmos* differs from its only other Indian congener, *M. guentheri* Day, among other characters, by having 24 pairs of rostral tooth plates (vs. rostral tooth plates absent). With the present designation of a neotype, *Rhynchobdella orientalis* Bloch & Schneider (type locality East Indies to Sri Lanka) becomes an objective junior synonym of *M. aculeatus* Bloch. Although assessed as ‘common’ in 1980, the population of *M. pentophthalmos* suffered a precipitous decline in the following decade, the causes of which are unknown. The species may now be extinct.

Key words: *Macrogathus aral*, *Macrogathus guentheri*, *Macrogathus malabaricus*, *Macrogathus ocellatus*, *Macrogathus orientalis*, neotype

Introduction

Two species of spiny eel (Mastacembelidae) have long been recognized from Sri Lanka: *Mastacembelus armatus* (La Cèpède, 1803) and *Macrogathus aral* (Schneider, 1801) (Willey 1908; Duncker 1912; Deraniyagala 1932, 1952; Munro 1955; Senanayake 1980; Roberts 1980, 1986; Travers 1984a,b; Pethiyagoda 1991), the latter species having been incorrectly synonymised with *M. aculeatus* by some of these authors. Both species have been reported to be widely distributed also in the Indian subcontinent (Sufi 1956; Talwar and Jhingran 1991), their insular populations in Sri Lanka having been labelled “common” in separate assessments by Deraniyagala (1932) and Senanayake (1980). In a survey made a decade later, however, Pethiyagoda (1991) was unable to record even a single specimen of *M. aral* and declared the species “rare”, a status he later evaluated as Endangered (Pethiyagoda 1994). In 1992 an illustrated ‘Wanted’ poster was displayed by the Wildlife Heritage Trust in the stations of the principal ornamental fish export companies and inland fisheries centres in Sri Lanka, offering a reward of approximately US\$ 180 for a single specimen of *Macrogathus aral* or another fish that had evidently suffered a similar decline, *Labeo lankae* (Cyprinidae). Although there were a few responses to this advertisement, the spiny eels presented by respondents were all *Mastacembelus armatus*, which is easily distinguished from *Macrogathus aral* by its mottled (vs. striped) body coloration and having its dorsal, caudal and anal fins confluent (vs. separate). Based on surveys conducted in the island since