



## Three new species of the Indo-Pacific fish genus *Hime* (Aulopidae, Aulopiformes), all resembling the type species *H. japonica* (Günther 1877)

MARTIN F. GOMON<sup>1,3</sup> & CARL D. STRUTHERS<sup>2</sup>

<sup>1</sup>*Ichthyology, Sciences Department, Museum Victoria, GPO Box 666, Melbourne, Victoria, 3001, Australia*

*E-mail: mgomon@museum.vic.gov.au*

<sup>2</sup>*Museum of New Zealand Te Papa Tongarewa, PO Box 467, Wellington, New Zealand*

*E-mail: carls@jepapa.govt.nz*

<sup>3</sup>*Corresponding author*

### Abstract

Descriptions of three new species of the aulopid genus *Hime* from the central and western Pacific and presumably the easternmost Indian Ocean are presented. *Hime surrubea* sp. nov., confined to the Hawaiian Island region, has been misidentified in species accounts and faunal lists as *H. japonica* and although resembling it is separable from that species by its shorter caudal peduncle, slightly larger head, larger eye, especially relative to head size, and slightly smaller pectoral and pelvic fins. *Hime capitonis* sp. nov. is known conclusively only from seamounts off the southern tip of New Caledonia and Vanuatu, and is distinguishable by its distinctively large head (32.3–35.6% SL) and eyes (orbital diameter 10.8–13.0% SL) and relatively few scales between the anus and anal fin origin (7–9). The Indonesian *H. caudizoma* sp. nov. is so far known from only 8 specimens, acquired in markets in southeastern Lombok and presumably caught nearby in what would be regarded the eastern reaches of the Indian Ocean. The species is recognisable by its dorsal fin of rather uniform moderate height with nearly straight distal margin and 17 rather than 16 rays, none of which is filamentous in either sex, the second penultimate ray rather than anterior rays the longest in males. Like the other two described here, *H. caudizoma* has among the largest head and eyes of the family. Observations on the dorsal fin form and other features of *H. microps* Parin & Kotlyar, 1989 are provided based on a large male specimen collected at Rapa Iti, Austral Islands and a re-evaluation of the original description.

**Key words:** Hawaii, New Caledonia, Indonesia, *Hime microps*

### Introduction

Indo-Western Pacific representatives of the aulopiform family Aulopidae were examined by Gomon *et al.* (2013), who concluded that the Indo-Pacific genus *Hime* Starks, 1924 is valid both from morphological and genetic perspectives. Prior to the study, the type species of the genus *H. japonica* (Günther, 1877) was thought to be wide ranging, distributed from the type locality in northern Japan eastward to the Hawaiian islands and southward to eastern Australia and New Zealand (Strasburg, 1966, Parin & Kotlyar, 1989, Thompson, 1998). Gomon *et al.* (2013), however, demonstrated that Australian and New Zealand specimens so identified are a separate species *H. pyrhistion* Gomon, Struthers and Stewart, 2013, bringing the number of valid species referable to the genus, having available names, to six. These authors also presented genetic support for the existence of an additional undescribed, Indonesian species and alluded to others, including an Hawaiian endemic. This contribution provides formal descriptions of these two species, as well as of a third occurring off New Caledonia.

The surprisingly conservative nature of pigmentation and meristic values in aulopids have no doubt been factors in the reserved approach that authors working on the group have taken in recognising diversity within the family. Almost all species in the four genera have four darkly margined saddles dorsally on the sides, the form of which is almost identical in previously recognised species of *Hime*, together with the three newly described here. Moreover, meristic values, although varying within species, do not differ to a noticeable extent between the species.