



A new species of *Secutor* (Teleostei: Leiognathidae) from the Western Indian Ocean

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Abstract

A new species of ponyfish, *Secutor mazavasaoka*, is described from coastal waters of the Western Indian Ocean. Together, the new species, *S. indicus*, and *S. insidiator* are readily distinguished from congeners by more or less oval-shaped elongate bodies (vs. markedly deep and disk-shaped). The new species is distinguished from *S. hanedai* by the presence of scales on the chest (vs. chest asquamate), and from *S. indicus* and *S. insidiator* by a deeper, hatchet-shaped body (vs. uniformly oval) and pigmentation pattern on the dorsal flank comprising eight to eleven well-defined columns of irregular small spots and blotches (vs. 14 to 17 thin columns of spots or vertical lines in *S. indicus*, or larger irregular blotches arrayed in poorly defined columns in *S. insidiator*). Additionally, the new species is distinguished from *S. insidiator* by a strongly upturned mouth and compressed pug-like snout, a pronounced concavity dorsal to the orbit, a dorsally-projecting nuchal spine, and dorsal-fin insertion well posterior to vertical through pectoral-fin base (vs. at about level of pectoral-fin base in *S. insidiator*).

Key words: bioluminescence, light organ, ponyfish, sexual dimorphism, *Secutor mazavasaoka* **sp. nov.**, slimy, slipmouth, symbiosis

Introduction

Secutor Gistel, 1848 currently comprises six species: *S. hanedai* Mochizuki and Hayashi, 1989, *S. indicus* Monkolprasit, 1973, *S. insidiator* (Bloch, 1787), *S. interruptus* (Valenciennes, in Cuvier and Valenciennes, 1835), *S. megalolepis* Mochizuki and Hayashi, 1989, and *S. ruconius* (Hamilton, 1822). Members of the genus are unique among ponyfishes in having markedly extensible tubular mouths that protract strongly dorsally, a blunt and upturned, pug-like snout, a broad, plate-like cleithrum (Fig. 1), and a distinctive sexually-dimorphic light-organ system (LOS), both internally and externally (Fig. 2).

In the most recent treatment and only revision of the genus, Mochizuki and Hayashi (1989) considered *S. insidiator* (Bloch, 1787) to be a geographically widespread species, with a range nearly as extensive as that of Leiognathidae itself and extending from the east coast of Africa, through coastal waters of the Middle East and south Asia, to eastern coastal Australia (i.e., spanning the Indian Ocean to the western margin of the Pacific plate). Although the authors of that study assign a huge geographic range to *S. insidiator*, they fail to note or discuss any of the consistent geographic differences observable between putative populations occurring in South Asia (near the type locality in western India) and eastward, from those of the Western Indian Ocean (Mascarene Islands to the east coast of Africa). Moreover, Mochizuki and Hayashi (1989) examined only a handful of collections of *Secutor* from the western coast of India, and they did not examine either of the syntypes of *S. insidiator* (ZMB 1676, n = 2) described by Bloch (1787), both of which remain in very good condition in terms of pigmentation pattern and overall body shape and integrity.

Herein, we compare putative populations of *Secutor insidiator* from throughout the wide geographic range attributed to this putative species by Mochizuki and Hayashi (1989) and discuss several geographically consistent