

## Morphological comparisons of the Indo-West Pacific scorpionfish, *Parascorpaena aurita*, with a closely related species, *P. picta*, with first records of *P. aurita* from East Asia (Scorpaeniformes: Scorpaenidae)

HIROYUKI MOTOMURA<sup>1,5</sup>, YOU SAKURAI<sup>2</sup>, HIROSHI SENOU<sup>3</sup> & HSUAN-CHING HO<sup>4</sup>

<sup>1</sup>The Kagoshima University Museum, 1–21–30 Korimoto, Kagoshima 890–0065, Japan. E-mail: motomura@ kaum.kagoshima-u.ac.jp

<sup>2</sup>Okinawa Environmental Research Co., Ltd., 2–6–19 Aja, Naha, Okinawa 900–0003, Japan

<sup>3</sup>Kanagawa Prefectural Museum of Natural History, 499 Iryuda, Odawara, Kanagawa 250–0031, Japan

<sup>4</sup>Institute of Marine Biology, National Taiwan Ocean University, Keelung 202, Taiwan

<sup>5</sup>Corresponding author

### Abstract

The poorly known scorpionfish *Parascorpaena aurita* is redescribed on the basis of 96 specimens from the Indo-Pacific and compared in detail with a closely related species, *P. picta*. The two species can be distinguished from other congeners by lacking a suborbital spine below the eye and having usually 17 or 18 pectoral-fin rays. Examination of a large number of specimens of each species revealed that *P. aurita* differs from *P. picta* in a number of scale counts and morphometrics, and morphology of the suborbital and interorbital ridges, and occiput. Previously published photographs and/or specimen lists identified as *P. picta* included both species. *Parascorpaena aurita* is widely distributed in the Indo-Pacific, including East Asia (first records), whereas *P. picta* is restricted to Southeast Asia and Australia.

**Key words:** Scorpionfish, Scorpaenidae, *Parascorpaena aurita*, *Parascorpaena picta*, morphology

### Introduction

The Indo-Pacific scorpionfish genus *Parascorpaena* Bleeker, 1876 is characterized by having an anteroventrally directed posterior lacrimal spine and cycloid body scales (rarely with weak cteni) (Motomura *et al.*, 2005a). Although the Indo-West Pacific scorpionfish, *Parascorpaena aurita* (Rüppell, 1838), is relatively common in rocky and coral reefs in shallow tropical waters, detailed taxonomic and morphological studies of the species have not been published. *Parascorpaena picta* (Cuvier *in* Cuvier & Valenciennes, 1829), a closely related species, has been listed in numerous faunal studies (e.g., Larson & Williams, 1997; Hutchins, 2001; Manilo & Bogorodsky, 2003; Adrim *et al.*, 2004; Allen *et al.*, 2006), although taxonomic characters of the species are similarly poorly known. The two species are very similar, being distinguished from other congeners by the lack of a suborbital spine below the eye (vs. present in the latter) and having usually 17 or 18 pectoral-fin rays (vs. usually 15 or 16 rays) (Poss, 1999).

Smith (1957) briefly compared his specimens of *P. aurita* from the western Indian Ocean with the description and figure of *P. picta* from the Philippines given by Bleeker (1876), and separated the two species by differences in squamation on the head and the presence or absence of the supraocular tentacle. However, Smith's specimens of *P. aurita* included at least two species, *P. aurita* and *P. mossambica* (Peters, 1855), because Smith regarded *P. aurita* as a senior synonym of *P. mossambica*, and both species are presently considered valid. Accordingly, Smith's description of *P. aurita* included diagnostic features of both species [e.g., suborbital spine present (*P. mossambica*) or absent (*P. aurita*) below eye and pectoral-fin rays 15–17 (15–16 in *P. mossambica*, 17 in *P. aurita*)]. In addition, head squamation is not subject to specifically distinct