# Article

# ZOOTAXA

# Review of the scorpionfish genus *Pteroidichthys* (Scorpaenidae), with descriptions of two new species

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## Abstract

A taxonomic review of the scorpaenid genus *Pteroidichthys* Bleeker, 1856 resulted in recognizing four valid species, including two new species; *P. acutus* **n. sp.**, *P. amboinensis* Bleeker 1856, *P. caussei* **n. sp.**, and *P. noronhai* (Fowler 1938). The genus *Pteropelor* Fowler, 1938 is regarded as a junior synonym of *Pteroidichthys*. *Rhinopias godfreyi* Whitley 1954, previously treated as a valid species, is herein regarded as a junior synonym of *P. amboinensis*. *Pteroidichthys amboinensis* and *P. caussei* have two spines and six soft rays in the anal fin and a supplemental preopercular spine, whereas *P. acutus* and *P. noronhai* have three spines and five rays, and lack the spine. *Pteroidichthys amboinensis* differs from *P. caussei* in having flexible dorsal-fin spines (vs. rigid in the latter) and tentacles on the supraocular and posterior lacrimal spines well developed, their lengths greater than the orbit diameter (vs. less than orbit diameter). *Pteroidichthys noronhai* differs from *P. acutus* in having a relatively short snout, its length shorter than (vs. longer than in the latter) the postorbital length, and a distance between tips of the lateral lacrimal and first suborbital spines shorter than or subequal to (vs. longer than) that between tips of the first and second suborbital spines. *Pteroidichthys acutus* is known from the western Pacific in depths of 73–400 m, *P. amboinensis* from the Indo-West Pacific in 7–43 m, *P. caussei* from the South Pacific in 68–122 m, and *P. noronhai* from the western Pacific and Western Australia in 52–215 m.

**Key words:** *Pteroidichthys acutus*, *Pteroidichthys amboinensis*, *Pteroidichthys caussei*, *Pteroidichthys noronhai*, *Rhinopias godfreyi*, taxonomy, redescription, synonymy

## Introduction

The scorpionfish genus *Pteroidichthys* was originally proposed by Bleeker (1856) as a new monotypic genus for his new species, *Pteroidichthys amboinensis*, from Indonesia. Subsequently, Fowler (1938) described *Pteropelor noronhai* as a new monotypic genus and species from Hong Kong. Whitley (1954) described *Rhinopias godfreyi* as a new species from Western Australia, without giving comparisons of his new species with *Pteroidichthys amboinensis* or *Pteropelor noronhai*. Taxonomic status of the three nominal species, especially the validity of *Pteropelor noronhai* and *Rhinopias godfreyi*, has been obscure (Eschmeyer *et al*. 1973; Chen & Liu, 1984).

Recently, the three nominal species have been regarded as valid species of the genus *Pteroidichthys* (*e.g.,* Allen & Cross, 1989; Hutchins, 2001; Allen *et al*., 2007; Motomura *et al*., 2011a; Allen & Erdmann, 2012). However, no morphological comparisons among the three species were provided by these authors. Poss (1999) distinguished *P. amboinensis* from *P. noronhai* by the number of anal-fin rays: *i.e.*, 2 spines and 6½ soft rays in *P. amboinensis* vs. 3 spines and 5½ rays in *P. noronhai*. However, he did not give any information on *Rhinopias godfreyi*.

Examination of all type specimens of the three nominal species and a large number of non-type specimens from the Indo-Pacific region during this study revealed that *P. amboinensis* and *P. noronhai* are valid species of *Pteroidichthys*, *Rhinopias godfreyi* is a junior synonym of *P. amboinensis*, and two other species are undescribed. *Pteroidichthys amboinensis* and *P. noronhai* are redescribed here in detail and *P. acutus* and *P. caussei* are described as new species from the western Pacific Ocean and South Pacific Ocean respectively.