Amamiichthys, a new genus for the sparid fish Cheimerius matsubarai Akazaki 1962, and redescription of the species, with designation of a neotype

Article *in* Zootaxa · August 2015

DOI: 10.11646/zootaxa.4007.2.3

CITATIONS
0

READS
265

2 authors:

Fumiya Tanaka
Miyazaki University
10 PUBLICATIONS **18** CITATIONS

SEE PROFILE

Yukio Iwatsuki
Miyazaki University
133 PUBLICATIONS **1,212** CITATIONS

SEE PROFILE

Zootaxa 4007 (2): 195–206
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.4007.2.3
http://zoobank.org/urn:lsid:zoobank.org:pub:4CE1B3B6-8D31-4ADA-AEE8-1857962D0CDB

Amamiichthys, a new genus for the sparid fish *Cheimerius matsubarai* Akazaki 1962, and redescription of the species, with designation of a neotype

FUMIYA TANAKA[1,3] & YUKIO IWATSUKI[2]

[1]*Interdisciplinary Graduate School of Agriculture and Engineering, University of Miyazaki, 1-1 Gakuen-kibanadai-nishi, Miyazaki, 889-2192, Japan. E-mail: nb11003@student.miyazaki-u.ac.jp*
[2]*Department of Marine Biology and Environmental Sciences, Faculty of Agriculture, University of Miyazaki, 1-1 Gakuen-kibanadai-nishi, Miyazaki, 889-2192, Japan. E-mail: yuk@cc.miyazaki-u.ac.jp*
[3]*Corresponding author*

Abstract

A new genus, *Amamiichthys*, is proposed for the sparid fish *Cheimerius matsubarai* Akazaki 1962. This genus differs from all other genera in the family Sparidae by the following combination of characters: both jaws with an outer row of small molariform teeth and an inner row of similar, even smaller teeth; frontal bone flat, coarse and porous; strongly bifurcate protuberance of upper ethmoid just beneath mid-region of anteriormost portion of frontal bone; head and body pinkish, gradually becoming silvery toward abdomen, with many small blue spots, some pairs overlapping. The type species, *Amamiichthys matsubarai*, is redescribed and a neotype designated.

Key words: Sparidae, new genus, *Amamiichthys, Cheimerius matsubarai,* Neotype

Introduction

Species of the family Sparidae are widespread in tropical and temperate marine and brackish waters (Smith 1938; Akazaki 1962; Bauchot & Smith 1983; Carpenter 2001). Most are carnivorous, feeding on benthic invertebrates, and many are commercially important (Carpenter 2001; Iwatsuki *et al*. 2015).

The family Sparidae has historically been classified into four or six subfamilies, primarily on the basis of dentition (Smith 1938; Smith & Smith 1986; Akazaki 1962), although such subfamilies have more recently been considered as non-monophyletic on the basis of mitochondrial cytochrome *b* (cyt-*b*) gene and 16S ribosomal RNA data (Hanel & Sturmbauer 2000; Orrell & Carpenter 2002; Orrell *et al*. 2004; Chiba *et al*. 2009). Chiba *et al*. (2009) has also demonstrated that six genera (*Acanthopagrus*, *Cheimerius*, *Dentex*, *Diplodus*, *Pagellus* and *Pagrus*) are also non-monophyletic. Clearly, generic and higher classification of the Sparidae needs to be revised, using both morphological and genetic data. Furthermore, the position of centracanthid species, often included in the family Sparidae (Orrell *et al*. 2002; Orrell & Carpenter 2004; Chiba *et al*. 2009; Santini *et al.* 2014), needs to be resolved.

The genus *Cheimerius* (type species: *Dentex nufar* Valenciennes 1830) was proposed by Smith (1938) and was included in the subfamily Denticinae on the basis of acute, non-molariform teeth (Smith 1938; Smith & Smith 1986). Currently the genus includes two valid species: *C. nufar* from the Western Indian Ocean and *C. matsubarai* Akazaki 1962 known from only Amami-oshima Island, Ryukyu Islands, Japan. *Cheimerius* has been subsequently characterized as having 12 dorsal-fin spines (first and second very short, third to sixth longer and filamentous) and scales absent on the preopercular flange (Smith 1938; Akazaki 1962). Akazaki (1962) included *C. matsubarai* in the genus *Cheimerius* (subfamily: Denticinae) because both species share the above diagnostic characters. However, *C. matsubarai* has small molariform teeth on each jaw.

The combination of recent morphological (this study) and genetic studies has indicated strongly that *C. matsubarai* should be considered as generically distinct from *C. nufar*. In fact, Chiba *et al*. (2009) noted that *C. matsubarai* belonged to the same clade as Indo-West Pacific species of *Argyrop*s Swainson 1839, *Evynnis* Jordan &

Accepted by W. Holleman: 3 Aug. 2015; published: 27 Aug. 2015