



A review of the genus *Platyrrhina* (Chondrichthys: Platyrrhinidae) from the northwestern Pacific, with descriptions of two new species

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Abstract

The genus *Platyrrhina* from the northwestern Pacific was reviewed, including a redescription and neotype proposal for *Platyrrhina sinensis* (Bloch and Schneider 1801), and the description of two new species. *Platyrrhina limboonkengi* Tang 1933 is relegated to the synonymy of *P. sinensis*, both species having two rows of hooked thorns on the mid-dorsum of the tail. Specimens previously widely identified as *P. sinensis*, but characterized by one row of such hooked thorns, represented an undescribed species, herein named *Platyrrhina tangi* Iwatsuki, Zhang and Nakaya **sp. nov.** *Platyrrhina hyugaensis* Iwatsuki, Miyamoto and Nakaya **sp. nov.**, known from specimens limited primarily to the Hyuga Nada Sea, off Miyazaki, the Pacific coast of southern Japan, is similar to *P. tangi* in having one row of hooked thorns on the mid-dorsum of the trunk and tail, but differs in having larger hooked thorns, not encircled by light yellow or white pigment on the orbital, nape and scapular regions, and a pair of hooked thorns (absent in *P. tangi*) anteriorly on the scapular region. Nominal species are discussed and key to northwestern Pacific species of *Platyrrhina* is provided.

Key words: taxonomy, NW Pacific, *Platyrrhina sinensis*, *Platyrrhina hyugaensis* **sp. nov.**, *Platyrrhina tangi* **sp. nov.**

Introduction

During fish faunal surveys of the Hyuga Nada Sea, off Miyazaki, the Pacific coast of southern Japan, several specimens similar to supposed *Platyrrhina sinensis* (*sensu* Shen 1993; Compagno & Last 1999; Zhu & Meng 2001) were encountered. However, because they differed from *P. sinensis* in several characters, suggesting that they represent a new taxon. Therefore, the status of *P. sinensis* was reconsidered. This included examination of the drawing (see Fig. 1A) by Lacepède (1801) on which the description of *P. sinensis* was originally based. That drawing clearly showed two rows of thorns on the mid-dorsum of the tail, a diagnostic character of *P. limboonkengi* Tang 1933, distributed in southern China and Vietnam (Tang 1933; Compagno 1999; Zhu & Meng 2001). Clearly, many specimens identified over the years as *P. sinensis* (Müller & Henle 1841; Richardson 1846; Matsubara 1955; Chu 1960; Zhu & Meng 2001; Hatooka 2002; Compagno *et al.* 2005), despite having only one row of hooked thorns on the mid-dorsum of the tail, have in fact been misidentified and instead represent an undescribed species.

On the other hand, *P. limboonkengi* conforms closely to the drawing of *P. sinensis* by Lacepède (1801), having two rows of hooked thorns on the mid-dorsum of the tail (Chu 1960; Compagno 1999), and is here considered to be a junior synonym of the latter.

Accordingly, we recognize three northwestern Pacific species of *Platyrrhina*, *P. sinensis* (senior synonym of *P. limboonkengi*), which is redescribed here, *P. tangi* **sp. nov.** (previously widely misidentified as *P. sinensis*), and *P. hyugaensis* **sp. nov.** (currently known only from the Pacific coast of southern Japan).