



***Platycephalus orbitalis*, a new species of flathead (Teleostei: Platycephalidae) collected from western Australia**

HISASHI IMAMURA^{1,3} & LESLIE W. KNAPP²

¹Fisheries Science Center, the Hokkaido University Museum, 3-1-1 Minato-cho, Hakodate, Hokkaido 041-8611, Japan

²Department of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution, Washington D. C. 20560, U.S.A.

E-mail: knappl@si.edu

³Present address: Laboratory of Marine Biology and Biodiversity (Systematic Ichthyology), Faculty of Fisheries Sciences, Hokkaido University, 3-1-1 Minato-cho, Hakodate, Hokkaido 041-8611, Japan. E-mail: imamura@fish.hokudai.ac.jp

Abstract

A new platycephalid, *Platycephalus orbitalis*, is described on the basis of specimens collected in the Indian Ocean off the coast of Western Australia at depths of 50–144 m. The new species had been mistakenly identified as *P. marmoratus*, which is now known to be restricted to eastern Australia. Several morphological characters (e.g. 65–68 pored scales in lateral line, snout and interorbit naked, and caudal fin blackish with white posterior margin) can separate *Platycephalus orbitalis* **sp. nov.** and *P. marmoratus* from the other 14 congeners. In addition, *Platycephalus orbitalis* **sp. nov.** differs from *P. marmoratus* in having the margin of the interopercle scalloped, skinny sensory tubes on the infraorbitals, the preopercle well developed and mostly covering the cheek region, and the body and head lacking distinct large spots and bands dorsally.

Key words: *Platycephalus orbitalis*, **sp. nov.**, *Platycephalus marmoratus*, Platycephalidae, western Australia

Introduction

The platycephalid genus *Platycephalus* Bloch, 1795 (*sensu* Imamura, 1996, who synonymized *Neoplatycephalus* Castelnau, 1872 with *Platycephalus*) is characterized by having pored scales in the lateral line more than 60 and a single tooth plate on the vomer (Imamura, 1996; Knapp, 1999). Recently 15 species of the genus are known in Australian waters (Imamura, 2006). Among them, *Platycephalus marmoratus* was originally described by Stead (1908) based on two specimens collected from Port Stephens and Coffs Harbour, eastern Australia (see also Imamura, 2006). After the original description, this species was also reported from western Australia (e.g., Hutchins & Thompson, 1983; Hutchins & Swainston, 1986; Paxton & Hanley, 1989; Hutchins, 2001; Hoese *et al.*, 2006). Recently Imamura (2006) redescribed *P. marmoratus* and compared it with other known congeners based on specimens, including the holotype, collected from eastern Australia. Our detailed comparison of the specimens from western and eastern Australia showed that the western Australian population is a distinct new species. The new species is described here and the morphological differences between the two species are discussed.

Materials and methods

Counts and measurements were made according to Hubbs & Lagler (1958) and were routinely taken from the left side, with the exception of gill rakers which were counted on the right side. Isolated small dorsal spines are expressed by using plus sign. Measurements were made with calipers to the nearest 0.1 mm. Length of the