



Four new species of deep-water catsharks of the genus *Parmaturus* (Carcharhiniformes: Scyliorhinidae) from New Caledonia, Indonesia and Australia

BERNARD SÉRET^{1,3} & PETER R. LAST²

¹Muséum national d'Histoire naturelle, Département Systématique et Evolution, UMS 602 "Taxonomie et Collections", 55 rue Buffon, Case postale 51, 75231 Paris cedex 05, France . E-mail: seret@mnhn.fr

²CSIRO Marine Laboratories, GPO Box 1538, Hobart, TAS 7000, Australia. E-mail: peter.last@csiro.au

³Corresponding author

Abstract

Four new species of rare scyliorhinid catsharks are provisionally assigned to the genus *Parmaturus*: *P. lanatus* **sp. nov.** from Indonesia, *P. albimarginatus* **sp. nov.** and *P. albipenis* **sp. nov.** from northern New Caledonia, and *P. bigus* **sp. nov.** from northeastern Australia. These species differ from each other by a combination of body morphology, denticle shape, dentition, colour and vertebral counts. An identification key to the Indo–Pacific *Parmaturus* species is provided. Comments on the diagnostic features separating the genera *Halaaelurus* and *Parmaturus* are given.

Key words: Scyliorhinidae, *Parmaturus albimarginatus*, *Parmaturus albipenis*, *Parmaturus bigus*, *Parmaturus lanatus*, New Caledonia, Indonesia, Australia, deep-water catsharks, new species

Résumé

Quatre nouvelles espèces d'holbiches de profondeur du genre *Parmaturus* (Carcharhiniformes: Scyliorhinidae) de Nouvelle-Calédonie, d'Indonésie et d'Australie.

Quatre nouvelles espèces d'holbiches rares sont provisoirement assignées au genre *Parmaturus* : *P. lanatus* **sp. nov.** d'Indonésie, *P. albimarginatus* **sp. nov.** et *P. albipenis* **sp. nov.** du nord de la Nouvelle-Calédonie et *P. bigus* **sp. nov.** du nord-est de l'Australie. Ces espèces diffèrent entre elles par une combinaison de caractères morphologiques, la forme des denticules cutanés, la dentition, la coloration et le nombre de vertèbres. Une clef d'identification des espèces indo-pacifiques de *Parmaturus* est fournie. Les caractères diagnostiques séparant théoriquement les genres *Halaaelurus* et *Parmaturus* sont donnés.

Introduction

During French and Australian exploratory cruises in the past decades to investigate the marine biodiversity of the Indo–Pacific region, numerous new species of fishes have been collected. Amongst these were representatives of some poorly known elasmobranch genera, including members of the catshark genus *Parmaturus* Garman. Five nominal species are presently assigned to this group and three of them occur in the Indo–Pacific: *P. melanobranchus* (Chan, 1966) and *P. pilosus* Garman, 1906 from China and Japan, and *P. macmillani* Hardy, 1985 from New Zealand and south of Madagascar (Compagno *et al.*, 2005). However, the status and composition of *Parmaturus*, as well as the scyliorhinid genera *Galeus* Rafinesque and *Halaaelurus* Gill, have been questioned because of the intrageneric variability of some diagnostic features, such as the presence or absence