



Squatina caillieti sp. nov., a new species of angel shark (Chondrichthyes: Squatiniformes: Squatinidae) from the Philippine Islands

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Abstract

A new species of angel shark, *Squatina caillieti* sp. nov., is described from a single specimen collected in deepwater off Luzon in the Philippines. The new species is closest to *S. formosa* and *S. nebulosa*, but differs from its congeners based on the following characters: unfringed barbels with rod-like tips, upper lip arch semi-oval in shape, large papillae present on the inside posterior margin of the spiracles, a greater interspiracle space than interorbital space, pelvic fin-tips which reach the first dorsal origin, a short pelvic fin base, short pelvic inner margin very short, and a short pelvic posterior margin; pelvic girdle span more than 1.4 times greater than head length; dorsal fins angular, greater interdorsal space than dorsal caudal space; caudal fin lobed, very short upper postventral caudal margin. The new species is the only *Squatina* confirmed as occurring in the Philippines. We also comment on the biogeography of western North Pacific *Squatina* and provide a revised regional key to this group.

Key words: Squatinidae, *Squatina caillieti*, new species, Philippines

Introduction

The family Squatinidae Bonaparte, 1838, consists of a single genus and approximately 19 valid species (Ebert & Compagno, 2011). The genus is wide ranging occurring mostly on continental shelves and upper slopes, mainly in temperate waters, but with some species penetrating into the tropics (Compagno *et al.*, 2005a). These ray-like, dorso-flattened, sharks are medium-sized with most being less than 1.6 m in total length (TL). These sharks are taken in both targeted fisheries and as by-catch in many areas of the world. Unfortunately, the differences among this group are poorly known and until recently have received very little attention.

In the western Pacific, at least seven *Squatina* species are known to occur. Four valid species are recognized in the western North Pacific (Walsh & Ebert, 2007), *S. formosa* Shen & Ting, 1972, *S. japonica* Bleeker, 1858, *S. nebulosa* Regan, 1906, and *S. tergocellatoides* Chen, 1963, and three species from tropical Australian waters (Last & White, 2008), *S. albipunctata* Last & White, 2008, *S. australis* Regan, 1906, and *S. legnota* Last & White, 2008. A *Squatina* species tentatively identified as *S. formosa*, from Philippine waters (Compagno *et al.*, 2005b) was examined and compared to *Squatina* material, including *S. formosa*, as part of a regional revision on this group (Walsh & Ebert, 2007). Based on specimens, including type material, examined by the authors and compared to the Philippines specimen it was concluded that the *Squatina* species previously identified as *S. formosa* (Compagno *et al.*, 2005a, b) in fact represents an undescribed species. Here we describe this new species of *Squatina*.

Methods

Morphometric measurements were taken following Compagno (2001), but with the addition of measurements for the upper lip arch and the caudal fin following Walsh & Ebert (2007). Measurements were taken to the nearest 0.1