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***Carcharhinus humani* sp. nov., a new whaler shark (Carcharhiniformes: Carcharhinidae) from the western Indian Ocean**

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Abstract

A new species of whaler shark, *Carcharhinus humani* sp. nov., is described based on five type specimens from the western Indian Ocean near the Socotra Islands, off Kuwait, Mozambique, and South Africa. The new species represents the fifth species of the *C. dussumieri/sealei* group and the third species of the *C. sealei* subgroup. The new species is the only species of the *C. sealei* subgroup known from the western Indian Ocean. Within the *C. sealei* subgroup, *C. humani* differs from *C. sealei* in having a sharply demarcated black apical marking on the second dorsal fin which does not extend onto body surface (vs. black marking diffuse-edged and usually extending onto upper sides of trunk), a longer horizontal preanarial length (4.1–4.7 vs. 3.4–4.2% TL), and a longer preoral length (6.8–7.6 vs. 5.7–6.5% TL); *C. humani* differs from *C. coatesi* in having a taller second dorsal fin (its height 4.0–4.5 vs. 2.9–3.6% TL), a shorter first dorsal fin (its length 13.4–14.6 vs. 14.8–17.3% TL), and more vertebrae (total centra 152–167 vs. 134–147).

Key words: new species, *Carcharhinus dussumieri/sealei* group, systematics, description, conservation status.

Introduction

Carcharhinus is one of the most species-rich genera of sharks and the most speciose genus within the family Carcharhinidae, with about 34 species currently considered valid nominal species and one undescribed species, *Carcharhinus* sp. A [*sensu* Compagno *et al.*, 2005]. Although there has been only one new species described in the last 63 years, i.e. *Carcharhinus leiodon* Garrick, 1985, several species have been recently resurrected as valid names (see White, 2012). Two of these, *Carcharhinus coatesi* (Whitley, 1939) and *Carcharhinus tjujot* (Bleeker, 1852), belong to the *Carcharhinus dussumieri/sealei* group, and were previously considered to be junior synonyms of *Carcharhinus sealei* (Pietschmann, 1913) and *Carcharhinus dussumieri* (Müller & Henle, 1839), respectively (White, 2012). Species of this group are characterised by the possession of a black-tipped second dorsal fin while all other fins are plain (White, 2012). In the revision of this group by White (2012), the above four species were separated and redescribed as distinct, valid taxa. Two subgroups were identified, the *dussumieri* subgroup (*C. dussumieri* and *C. tjujot*), and the *sealei* subgroup (*C. coatesi*, *C. sealei* and a possibly undescribed species *C. sp.*).

According to White (2012), species of the *sealei* subgroup differ from those of the *dussumieri* subgroup by having a moderately to slightly falcate first dorsal fin at all sizes (vs. first dorsal fin not falcate except in some small juveniles), a non-flattened snout, rounded in dorsoventral view, narrowly rounded in lateral view (vs. snout slightly flattened, slightly pointed in dorsoventral view, narrowly pointed in lateral view), a ratio of pectoral-fin anterior margin / its length of 1.44–1.60 (vs. 1.35–1.48), and a total vertebral count of more than 134 (vs. equal to or less than 138). The possibly undescribed species was based on a record from the Persian (Arabian) Gulf, first identified as *C. sealei*, and was considered to be possibly conspecific with specimens examined in Wheeler (1960, as *C. menisorrah*) and Garrick (1982).

Recent examination of four western Indian Ocean specimens has confirmed that this represents a new species

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