## Correspondence



## The Persian/Arabian Gulf's sole great white shark *Carcharodon carcharias* (Lamniformes: Lamnidae) record from Kuwait: misidentification of a sandtiger shark *Carcharias taurus* (Lamniformes: Odontaspididae)

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Records of the great white shark *Carcharodon carcharias* (Linnaeus) (Lamniformes: Lamnidae) in the Persian/Arabian Gulf (hereafter referred to as "The Gulf") are limited to a single report from Kuwait, in the northwest Gulf, which has subsequently been noted in key references (e.g. Compagno, 2001). Khalaf (1987) recorded *C. carcharias* based on an observation of a mounted specimen in Kuwait Science and Natural History Museum on a visit there in March 1987. The specimen is reported as being a female *C. carcharias* of 3m in length, caught off Kuwait's coast and supplied to the museum on the 14th of April 1984. A black and white photograph of the anterior portion (from just posterior of the pelvic fins) was included in Khalaf's account (Fig. 1 here), but no measurements or morphological data were presented.

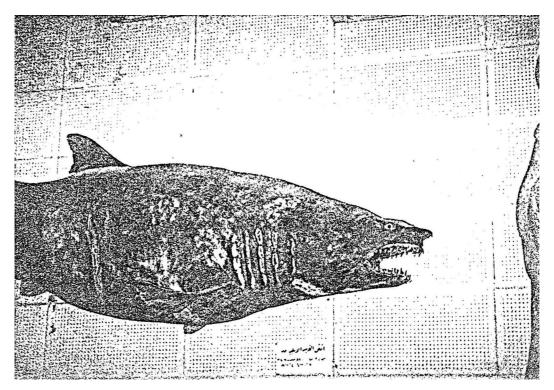


FIGURE 1: Photograph in Khalaf (1987) of Carcharias taurus, misidentified as Carcharodon carcharias.

The present authors examined the photograph and identified the specimen as *Carcharias taurus* Rafinesque (Lamniformes: Odontaspididae) based on the first dorsal fin origin being well behind the inner margins of the pectoral fins (cf. over the pectoral inner margins in *C. carcharias*), the first dorsal fin insertion being about over the pelvic fin origin (cf. being well ahead of pelvic fin origin), a short flattened snout (cf. moderately long conical snout), moderately long gill

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openings not extending onto the dorsal surface (cf. long gill openings), and characteristic protruding teeth. The photograph presented did not allow for examination of the caudal region or for effective examination of colouration.

Carcharodon carcharias has been recorded from a wide range of habitats and with an extensive distribution ranging from the equatorial tropics to the sub-Arctic, and from the intertidal down to the continental slope (Compagno, 2001). Cliff *et al.* (2000), Compagno (2001), and Zuffa *et al.* (2002) report white sharks from the tropical Western Indian Ocean off Mozambique and Madagascar north to Tanzania and Kenya and including the Seychelles, Réunion and Mauritius. There is therefore no theoretical reason why this species should not occur in the Persian Gulf or the wider northwestern Indian Ocean, although the nearest confirmed record is from Sri Lanka and possibly the Red Sea (Compagno, 2001). In addition, there are unconfirmed, anecdotal records of white sharks from the Gulf of Aden coast of Yemen, Djibouti and northern Somalia (Conan Doyle, 1963).

Gubanov & Schleib (1980) reported *C. taurus* as sometimes being encountered in Kuwait waters, although Krupp *et al.*, (2000) noted that there was no material provided to support this. Krupp *et al.*, (2000) reported the first record of *C. taurus* from The Gulf supported by reference material based on a 2.98m specimen caught off Abu Halifa, Kuwait, in 1997. The *C. taurus* reported here predates this by thirteen years.

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