

Additions to the shark fauna of the Persian (Arabian) Gulf

(Carcharhiniformes: Hemigaleidae and Carcharhinidae)

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Abstract. The diversity of the shark fauna of the Persian (Arabian) Gulf is poorly documented. Based on surveys of fish markets in Kuwait and Qatar we provide the first Gulf records of the Sliteye Shark *Loxodon macrorhinus*, and the first substantiated records of Snaggletooth Shark *Hemipristis elongatus*, Graceful Shark *Carcharhinus amblyrhynchoides* and Hardnose Shark *C. maclooti*. Based on photographs of misidentified specimens in historical literature we also add the Grey Reef Shark *C. amblyrhynchos* and Sharptooth Lemon Shark *Negaprion acutidens* to the Gulf fauna.

Key words. Elasmobranch, biodiversity, Kuwait, Qatar, Saudi Arabia.

Introduction

The diversity and distribution of the shark fauna of the Persian (Arabian) Gulf (the Gulf) is poorly documented, with only a handful of publications focusing on sharks (e.g. GOUBANOV & SHLEIB 1980, BISHOP & ABDUL-GHAFFAR 1993, MOORE et al. 2007, TOURENQ et al. 2008). Although other literature has reported on shark distributions in the seas around Arabia, this has often been compromised by lack of detail or records specific to the Gulf (e.g. RANDALL 1986, ASSADI & DEGHANI 1997), or by being largely extrapolated from the known Indian Ocean fauna (e.g. CARPENTER et al. 1997). As a result, the Gulf has often represented a gap in knowledge in distribution maps of shark species in even the most authoritative texts (COMPAGNO et al. 2005). This paper aims to address at least part of this by extending the known range of several species, based on market collections and re-appraisal of literature.

Material and methods

Fresh whole specimens were examined during surveys of elasmobranchs in fish markets conducted as part of Shark Conservation Society (SCS) expeditions (Fig. 1): Kuwait (10-24.iv.2008): Sharq (29°23'N, 47°58'E) and Fahaheel (29°04'N, 48°08'E). Qatar (12-29.iv.2009): Doha (corniche) (25°17'N, 51°32'E), Doha: (main wholesale) (25°17'N, 51°32'E), Al Khor (25°41'N, 51°31'E). All specimens appear to have been landed by small (~7 m) open speedboats using gillnets, operating in local, coastal waters with a likely depth of 20-40 m (maximum ~60 m).

Whole specimens were deposited in the Australian National Fish Collection (ANFC) in CSIRO Marine & Atmospheric Research (CMAR), Hobart, and in the Natural History Museum (BMNH), London. Tissue samples were collected and deposited at the ANFC where they were archived and allocated a CSIRO tissue number (prefix GT).

To confirm identifications fin tissue of specimens was DNA barcoded as per WARD et al. (2005), sequencing a 655 bp region of the mitochondrial cytochrome c oxidase I gene (cox1). These barcodes were then cross-matched with reference barcodes for these species to confirm their identity (WARD et al. 2008).