

A retrospective investigation of two dolphin mass mortality events in Iran, autumn 2007

(Mammalia: Cetacea)

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Abstract. During the autumn of 2007, two mass mortality events involving at least 152 small cetaceans were reported from southern Iran. Both events occurred on the Gulf of Oman coast near the town of Bandar Jask, and were separated by a month in time and more than 170 km in distance. The first event, on 20 September 2007, involved 79 animals, probably all Spinner Dolphins (*Stenella longirostris*). Dead animals, all exhibiting a similar degree of decomposition, drifted to shore along 13 km of coastline over a period of approximately 24 hours. These circumstances suggest that the mortality was caused by a single acute event at sea. Several carcasses had evidence of traumatic injuries, the stranding event was spatially and temporally coincident with an active fishing ground, and other potentially bycaught and discarded species were found on the beach. This pattern is generally consistent with the hypothesis that the Dolphin mortality was caused by fishing operations, although the available data are insufficient to confirm that hypothesis unequivocally. On 24 October 2007 there was a mass stranding of 73 live Striped Dolphins (*Stenella coeruleoalba*), a pelagic species believed to be rare in the Gulf of Oman. The most likely explanation for this mass stranding is that the Dolphin group was trapped by a falling tide among the complex sandbanks of the Kangan estuary. Striped Dolphins are not normally found in shallow water or near shore, and their occurrence in this area is considered unusual. The factor or factors that caused them to enter this atypical habitat remain unknown. The two mass mortality events involved different species and exhibited many different characteristics; there is no evidence to suggest that they were linked.

Key words. Mass stranding, Spinner Dolphin, *Stenella longirostris*, Striped Dolphin, *Stenella coeruleoalba*, Iran, Indian Ocean, Middle East.

Introduction

During the autumn of 2007, two mass mortality events involving at least 152 small cetaceans were reported from the Gulf of Oman coast of southern Iran. Both events occurred near Bandar Jask, and they were separated by a month in time and more than 170 km in distance (Fig. 1). These strandings are particularly interesting because the marine mammal fauna of Iran is very poorly known. Sparse records from Iranian waters of the Gulf of Oman indicate that Spinner Dolphins (*Stenella longirostris*), Common Dolphins (*Delphinus cf. capensis tropicalis*) and Indo-pacific Bottlenose Dolphins (*Tursiops aduncus*) are the most common small cetaceans (BRAULIK et al. 2010). This suggests a cetacean fauna similar to that reported from the better-studied southern waters of the Gulf of Oman (BALDWIN et al. 1999).

Species that mass strand in large numbers (more than about 15) are normally pelagic ani-