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SKIN LESIONS OBSERVED IN CETACEANS FROM THE STRAIT OF GIBRALTAR

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INTRODUCTION

The Strait of Gibraltar is an important habitat for a large number of cetaceans, including four resident and three migratory species. It also represents the second busiest shipping area in the world, with approximately 90,000 ships per year transiting towards the Atlantic Ocean or the Mediterranean Sea. This study intends to catalogue the skin lesions observed in cetaceans of the Strait of Gibraltar and to determine their most probable cause.

MATERIAL AND METHODS

Our research took place in the Strait of Gibraltar and the Bay of Algeciras from April to October 2003 through 2008. Data was collected from platforms of opportunity, i.e. whale-watching vessels (2003-2005 from the Jackelin and 2006-2008 also form the Dolphin Safari) departing from the harbour of Tarifa, Cadiz, Spain.

RESULTS AND DISCUSSION

During this period, a total of 3,837 sightings were recorded, including species such as the bottlenose dolphin (*Tursiops truncatus*), long-finned pilot whale (*Globicephala melas*), Striped dolphin (*Stenella coeruleoalba*) and sperm whale (*Physeter macrocephalus*). All of these species are resident or semi-resident in the studied area and some individuals showed clear skin lesions. We classified the observed skin lesions in three categories, according to the probability of influence of anthropogenic activities in the studied area:

- Possible: lesions often associated with unrelated skin injuries as scars (excluding tooth rakes), cuts or scratches.
- Probable: discoloration, ulcerations, skin abrasions, polyps and the cauliflower-like growths could be probably caused by human activities, due to the influence of possible contaminant dumps from the close populations or from the many ships that cross the Strait every day. Similar cauliflower-like growths have been observed in bottlenose dolphins in the Indian River Lagoon System (Florida), area known to have high level of human pollution, especially heavy metals which may affect the population in a multitude of ways.
- Certain: blunt traumas, amputations and cuts which most clearly look like brought about ships or vessels structures like helix or fishing lines, related to fishery interactions with cetaceans.

Most of the lesions observed can be grouped in the two latter classes. However, to be sure of these statements, samples from the animals and a later study of the certain origin of them should be needed.



Bottlenose dolphin (*Tursiops truncatus*) with a missing pectoral fin (P. Gallego)



Long-finned pilot whale (*Globicephala melas*) with a cut on its dorsal fin. (C. Zimmermann)



Bottlenose dolphin with scars probably made due to a propeller.



Long-finned pilot whale with a blunt trauma in front of the dorsal fin. (C. Zimmermann)



Bottlenose dolphin with cauliflower-like growths in the beak.



Bottlenose dolphin with discoloration in its skin.

CONCLUSIONS

Therefore, according to our study, it can be concluded that most of the skin lesions present in the cetaceans studied in the Strait of Gibraltar have a high probability to be the consequence of anthropogenic causes, probably due to the high level of human activity in the Strait of Gibraltar.

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