



Cetaceans of the Mediterranean and Black Seas: State of Knowledge and Conservation Strategies

SECTION 1

Summary

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This report represents a compendium of the state of knowledge and of possible conservation strategies for cetaceans in the Mediterranean and Black Seas, to provide background information to the Contracting Parties to the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS).

Twenty one species of cetaceans occur in various degrees of abundance in the Mediterranean Sea and in the Black Sea. However, the species that are represented by regularly occurring, resident populations are limited to three in the Black Sea (short-beaked common dolphin, common bottlenose dolphin, and harbour porpoise), and eight in the Mediterranean Sea (fin whale, sperm whale, Cuvier's beaked whale, long-finned pilot whale, Risso's dolphin, common bottlenose dolphin, striped dolphin and short-beaked common dolphin). The status of the harbour porpoise in the Aegean Sea, where a small population unit may be existing, is still unclear. All other species occur occasionally, represented by vagrant individuals from North Atlantic and Red Sea populations. Each species is briefly described in this report, with a listing of its taxonomic position, the available common names in most of the Range States languages, and notes on distribution, habitat and ecology, and population data.

Conserving cetaceans has become an increasing challenge in present times. Cetaceans are long-lived vertebrates, confined to the highest levels in marine trophic webs, and have a very low reproductive rate. They are thus particularly vulnerable to the complex of threats deriving from a variety of human activities. Threats to cetacean survival deriving from human activities can be particularly severe in the Mediterranean and Black Seas, due to the enclosed and semi-enclosed nature of such basins, and to the human density and intensity of activities, particularly in the coastal zone.

Direct killing of cetaceans has been a problem in the past, particularly in the Black Sea, where over 6 million dolphins and porpoises were eliminated in the 20th century alone. By contrast, legal, organised killing of whales and dolphins never took place in the Mediterranean, with the exception of whaling activities which occurred in the first half of the 20th Century in the Strait of Gibraltar. A limited amount of live capture of bottlenose dolphins occurs to date in the Black Sea, catering for the oceanariums industry,

however the impact of this on the surviving populations is not known.

Habitat loss and degradation is a major concern in the Agreement area, where the marine environment is heavily impacted by a multitude of different human activities. Factors responsible for cetacean habitat degradation include: (a) pollution from a variety of sources and types (sewage, atmospheric pollution, trace elements, POPs, marine debris, nutrients, oil, radioactive contaminants, biological and genetic pollution); (b) climate change; (c) land-based changes, mostly deriving from agricultural, industrial, and forestry activities; (d) coastal development, including urbanisation, industry, tourism, and dam construction; and (e) direct uses of the marine environment and of its resources, such as marine traffic, fisheries, and aquaculture. The consequences of all these factors on cetacean survival in the region are considered important, however the impacting mechanisms, their complex interactions and their real effects on the populations and their critical habitats are poorly understood.

Interactions between cetaceans and fisheries also affect cetacean conservation in the Agreement area, in three principal ways: (a) accidental mortality deriving from the entanglement and drowning of cetaceans in fishing gear meant to capture different species; (b) direct killing of cetaceans, perceived by some fishermen as competitors and a cause of damage to their gear and catch; (c) depletion of cetacean prey resources through overfishing and illegal fishing practices. Bycatch occurs mostly on pelagic species in the Mediterranean (in pelagic driftnets for swordfish and tuna), whereas in the Black Sea it affects coastal species (in bottom gillnets for turbot, sturgeon and dogfish).

In a marine region where vessel traffic and other human activities are as intense as in the Agreement area, disturbance is also a source of considerable concern for the continued survival of cetacean populations. However, again, the need for a better understanding of the mechanisms affecting cetaceans and their long-term effects on populations appears as imperative. The potential of vessel traffic, collisions with ships, noise from various sources (shipping, industrial, coastal construction, dredging, mineral prospecting, military, etc.), and a growing commercial whale watching industry, to negatively affect the status of cetaceans in the Agreement area is explored and discussed.

Disease, parasites, and toxic algal blooms are natural factors affecting cetacean mortality. These factors, however, may also interact synergistically with habitat degradation factors that are induced by human activities, and thus acquire a much greater impacting importance. A classic example is provided by the recent morbillivirus epizootics, which were a substantial cause of mortality for striped dolphins in the Mediterranean Sea and for short-beaked common dolphins in the Black Sea.

To counteract the effects of such a large number of impacting factors, it is imperative that well-integrated, science-based conservation strategies are devised and implemented. These include the managing of human activities (including fisheries, vessel traffic, whale watching, and activities that cause cetacean habitat degradation and loss) to mitigate negative impacts on cetaceans; granting special protection to areas containing critical cetacean habitats; undertaking tar-

geted research and monitoring programmes; providing for timely responses to emergency situations; finally, promoting training, education and awareness programmes. While all these conservation strategies are worthy of being undertaken, and all cetacean species living in the Agreement area deserve to be protected as well, priorities are suggested in order to provide timely responses to address problems that are known or considered to be most urgent. In particular, four species appear to be in greater risk of declining and disappearing from the Agreement area, and are indicated as deserving the status of “priority species”: short-beaked common dolphins in the Mediterranean Sea, harbour porpoises, sperm whales, and common bottlenose dolphins. In addition, 18 priority actions are proposed, based on the considerations presented in this report, which will be presented for consideration to the first Meeting of the ACCOBAMS Parties.

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