

ON THE CONSERVATION AND MANAGEMENT OF MARINE MAMMALS OF INDIA

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ABSTRACT

Increasing attention is being paid the world over for affording protection to, and conservation of marine mammals. They are the most vulnerable group of sea animals, excepting the sea turtles. Public awareness needs to be created to remove the prejudices towards marine mammals. There is need for their protection in modern times through regulations, up-dating existing legislations, collection of scientific data, establishment of sanctuaries, extending of financial and other support and inter-governmental and regional cooperation. The status of the dugong in the seas around India is cited as a case in particular for conservation and management through appropriate regulatory measures, intensified scientific study, establishment of sanctuaries in situ and regional cooperation.

INTRODUCTION

WITH the declaration of the Exclusive Economic Zone, coastal states have the rights for the exploitation and management of living resources of the sea upto two hundred miles from their shores. This also places a high responsibility with the States for rational exploitation. The new convention of the Law of the Sea stresses international cooperation including scientific research. Two of the clauses of the convention give the right to states to be more protective of whales, dolphins, seals and the dugong than of fish.

Marine mammals in the past have been extremely important in many coastal economies. Although, for many species, a very long period of careful protection is needed, we cannot be sure that they will recover from the devastation of excessive exploitation to which most of them have been subjected. Marine mammals are the most vulnerable group of all sea animals, with the possible exception of sea turtles. In all ancient cultures of coastal and island peoples,

whales and dolphins were given special place. Recent references to whales in Indian Ocean (Alling *et al.* 1982 ; Brown, 1957) and whales and cetacea in world ocean (Anon, 1980 ; Watson, 1981) highlight the importance of these mammals.

The International Whaling Commission has declared that tropical, temperate and sub-Antarctic zones of the Indian ocean to be a sanctuary for the whales. The Commission also decided that commercial Whaling would be phased out everywhere by 1986. It is for the future to decide how to treat the whales better, whether as a continuing source of food or in other ways. Meanwhile, their life, habits and behaviour can be studied in order to learn more about them and also perhaps learn from them. It is feared that marine mammals, except for the herbivorous dugong, feed on fish and shell fish. They thus become serious competitors with fishermen. They are even accused of being the cause of some declining fisheries, which leads to the conclusion that they should be eliminated or at least kept down in

numbers. This approach at annihilation of marine mammals should be critically examined. Therefore, there is an urgent need to create a wider awareness of the marine mammals of in the World Ocean and especially in Indian ocean and the needs to ensure their survival and their co-existence with humans who have been increasing their impact on the habitats of other mammals. Global measures are needed to regulate trade in products like meat, oil, skins from whales and other mammals and to reinforce the conservation measures taken by national governments and through international organisations such as the IWC. It is also necessary to look into the non-consumptive values of whales.

Since accidental and incidental catches of marine mammals in fishing nets is increasing greatly, these catches need to be monitored so that the numbers, species composition, seasonality and sizes are known and the possible effects on the populations can be evaluated. Some information on the stranding of whales (James and Soundararajan 1980) and capture of dolphins and porpoises (Jones, 1976a) along the Indian coast is available.

It is felt that the existing legislation may be far out of date. This has relevance to activities in the EEZ and to trade in animals and/or products from them in accordance with modern ideas concerning the need for conservation of marine mammals and their habitats.

It is desirable that, where practicable, other values of marine mammals be realised for the benefit mainly of the local populations. Whale watching is cited as an example. The non-existence of exploitation for commodities provides the need and also opportunities for useful benign (non-lethal) research. Scientifically significant and potentially economic results can be obtained from such research, besides creating public awareness on the conservation of marine mammals.

THE CASE OF THE DUGONG

The dugong occurs in relatively large numbers in the Gulf of Mannar and Palk Bay than anywhere else in the seas around India. Arrangements to collect data and information on the dugong in the region at a suitable place would be ideal. The Gulf of Mannar with a chain of islands, shallow water and abundant growth of sea grass is the ideal habitat for the dugong. The islands provide protection to the dugong from south-west and north-east monsoons when it could move to areas of safety with reversal of winds during the two periods. The proposed National Marine Park in Gulf of Mannar affords the best sanctuary for the dugong and facilitates measures for conservation and management. Maintenance of captive breeding stocks in situ will greatly enhance the chances of survival, propagation and establishment of free stocks.

The research and conservation programmes should be undertaken jointly by India and Sri Lanka, by establishing one Centre for Gulf of Mannar in India and another for Palk Bay in Sri Lanka. Both the countries have already declared the dugong a protected animal. However, the mechanism of monitoring of activities detrimental to the dugong and enforcement of the law must be tightened for achieving the desired results. Several authors have referred to the status of the dugong in Sri Lanka (Bertram and Bertram, 1976; Jonklaas, 1960) and India (Jones, 1980 and 1981); relationship with ecosystem (Heinshon, 1975; Heinshon *et al.* 1977); observations in captivity (Kataoka *et al.*, 1981); problems of conservation (Spittel, 1960; Jones, 1976b; Marsh, 1981) and distribution in the world (Nishiwaki *et al.* 1979).

ACTION PLAN

In view of the above, for effective steps towards conservation and management of marine mammals of India, the following action plan appears to be urgently needed.

1. Appropriate action is needed to promote greater awareness and interest in marine mammals—to study their behaviour, habits and habitats in a systematic manner.
2. Up-to-date scientific data on marine mammals have to be collected for taking up specific measures for the conservation of marine mammals.
3. Research programmes on marine mammals have to be intensified, with special reference to conservation and non-consumptive development of marine mammals. Conservation and non-consumptive use of all species of marine mammals through inter-governmental and regional organisations should be ensured.
4. Financial and other support must flow from bilateral and multilateral donor agencies for research on conservation and non-consumptive development of marine mammals.
5. Immediate measures should be taken up for the conservation of the dugong occurring in the Palk Bay and the Gulf of Mannar on a cooperative basis between India and Sri Lanka. Specific research programme may be taken up on the habits, distribution and biology including its study in captivity and underwater observations.
6. Sanctuaries and marine parks must be quickly established for the protection and conservation of marine mammals.
7. Existing legislations should be up-dated, especially with reference to the EEZ, in accordance with modern ideas concerning the needs for conservation of marine mammals and their habitats.
8. In general there is little public knowledge, in many places within the region even of the existence of the marine mammals and certainly not of threats to them or their values. This should be corrected by vigorous national campaigns and by international/regional cooperation.
9. A data information-exchange and reference centre for marine mammal research be established at a suitable place.
10. Regular programme of recording the sightings of cetaceans (small and large) from fishing and research vessels and ships of opportunity in the coastal waters as well as in the Exclusive Economic Zone may be organised.
11. A separate research programme may be initiated for recording the strandings as well as capture of all cetaceans in standard proformae. Available data may also be brought under standard proformae for effective documentation of all information.

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