

# Sperm Whales off Sri Lanka

*Sri Lanka's largest common mammal is the Sperm Whale (Physeter catodon). During our six weeks in Sri Lanka and its waters we found no-one (including fishermen, scientists and officials) who knew this, although there are many sperm whales off Sri Lanka.*

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The sperm whale, vividly portrayed by Melville in *Moby Dick*, is a strange and fascinating animal. Their grey wrinkled bodies are dominated by the oil-filled "case" protruding above the upper jaw. It was a mistaken view of the function of this liquid that gave the sperm whale its name. Sperm whales are large: a physically mature male is about 16 metres long and weighs about 45 tons, three times as much as an adult female. Sperm whales are found in all oceans. However females and young concentrate in the tropics, with the large males roaming into Arctic and Antarctic waters. The sperm whale can dive to over 1,000 metres to feed on giant squid or fish, but, being a mammal, must always return to the surface to breathe. Evidence from the whalers suggests that the sperm whales possess a unique and interesting social system, probably of a "harem" type. The details of their social relationships are poorly understood, but must be clarified if this extraordinary animal is to be properly protected from man's accelerating development of the marine environment. We came to Sri Lanka, four scientists/sailors on board the 10 metres sailing yacht *Tulip*, to study the behaviour of the sperm whale.

In 1979 the International Whaling Commission (IWC), after pressure from the Indian Ocean Alliance (which included Sri Lanka), declared the majority of the Indian Ocean a Sanctuary for whales. The part of the Indian Ocean closest to Antarctica, where most whaling took place, was excluded in a typical IWC compromise. However the establishment of the Sanctuary gave whale scientists an opportunity and a challenge: the challenge to show that whale populations could be studied and monitored without whaling, and the opportunity to do research on undisturbed

whales. It was time to take to the Indian Ocean the methods of studying living whales which have been developed over the past fifteen years in the Atlantic and N. Pacific Oceans, and try them. In 1980 The World Wildlife Fund in the Netherlands raised money to do this, and we were commissioned to study the sperm whales in the Northwest Indian Ocean.

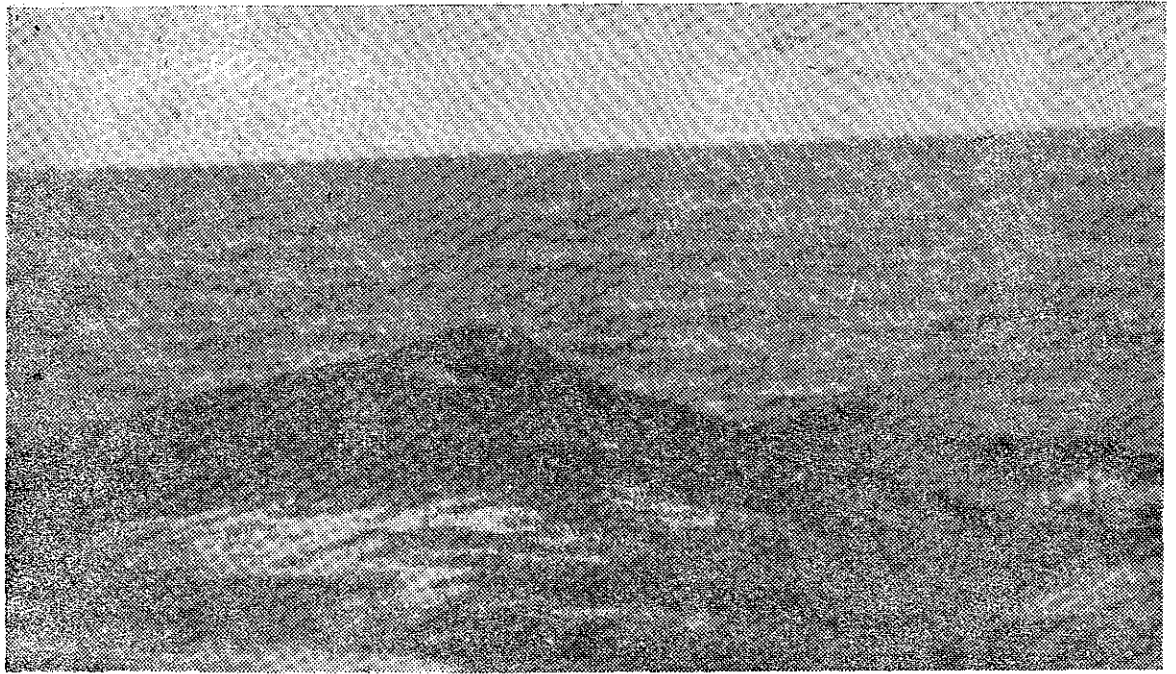
There were to be three field seasons of several months each. During the first, from November 1981 to March 1982, we were happy to survey the North-west Indian Ocean, to find a suitable area for sperm whale research, where we would concentrate our work in 1983 and 1984. The information available to us pointed to Djibouti, Oman, or the Seychelles as our most promising areas. However we included Sri Lanka in our survey route on account of a large catch of sperm whales there in the 19th century, and some more recent sightings by Dutch and British merchant ships. Within a few days of arriving in Sri Lankan waters it became apparent that we had found a major concentration of sperm whales, and an area suitable for behavioural research in 1983 and 1984.

Sperm whales are rarely found in shallow water on the continental shelf, and so are outside the range of most Lankan fishermen, although they are sometimes only ten miles from the coast. We found sperm whales off the south coast of Sri Lanka, near Galle, and throughout the deep water of the Gulf of Mannar between Sri Lanka and India.

From a small boat like *Tulip* sperm whales, which have low blows, are not easily seen. They also dive for up to an hour and a half, spending only ten to fifteen minutes at the surface blowing (breathing). However when they are submerged they usually make a regular knocking click about once per second. We could hear these clicks through a hydrophone (underwater microphone)

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at ranges of a few miles. We used the clicks to find and follow sperm whales. If very loud clicks suddenly stopped, sperm whales would usually be seen at the surface within a few minutes.

We heard sperm whales at about 25% of our deep-water listening stations off Sri Lanka. We have not yet the data to make a precise population estimate, but a very preliminary and rough analysis suggests the order of 200 sperm whales in the Gulf of Mannar.

In the Gulf of Mannar we found an all-important female group of about five adult whales with five young. It is in these groups that the most significant behavioural interactions probably take place. We are very much looking forward to returning to Sri Lanka in 1983 to learn what we can of the behaviour of the sperm whale.

Lankans may be surprised to learn that their waters contain a relatively large population of a very big, unusual, and endangered mammal. The sperm whales off Sri Lanka are inconspicuous and

harmless. A century ago the Lankan sperm whales were fished out in little over ten years by fairly primitive methods, and sperm whaling continues in the N. Atlantic and N. Pacific. We hope that the Indian Ocean Whale Sanctuary will prevent the whales that we have found from becoming similar victims to commercial greed.

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