FIRST RESEARCH SIGHTINGS OF FIN WHALES (*BALAENOPTERA PHYSALUS*) IN COASTAL WATERS OF THE MALTESE ISLANDS, CENTRAL-SOUTHERN MEDITERRANEAN

Adriana Vella [1]*

[1] Conservation Biology Research Group, University of Malta - avel@cis.um.edu.mt

Abstract

Fin Whales (*Balaenoptera physalus*) have been recorded in coastal waters of the Maltese Islands for the first time between July and August 2007 during ongoing cetacean scientific surveys, at an average distance from the Maltese coasts of about 4kms and in waters of average depth of 167 meters. This first coastal Fin whales' approach, recorded as part of a long-term cetacean research, in the central-southern Mediterranean region encompassing a research area of 100,000km2, since 1997, may indicate range expansion or re-distribution of some Fin whales in the Mediterranean or a singular event. Investigating the reasons behind these approaches and planning conservation measures for such presence in high vessel traffic regions of the Mediterranean is necessary.

Keywords: Cetacea, Conservation, Coastal Waters, Monitoring

Introduction

Though Fin whales (*Balaenoptera physalus*) have been studied extensively in the North West of the Mediterranean, with a particular focus in the Ligurian Sea and in the Pelagos Cetacean Sanctuary [1,2,3,4,5], relatively fewer other Fin whale sightings and studies have been reported from elsewhere in the Mediterranean [6,7]. One such study suggests a winter feeding ground for Mediterranean Fin whales, observed close to the Island of Lampedusa in February. Here the Fin whales were observed to feed on different prey and to spend their time in shallower waters than those in the Ligurian Sea [8]. These observations were taken to suggest a seasonal shift in ecology and geographic distribution among Mediterranean Fin whales. However, the number of individuals sighted close to Lampedusa in winter was smaller than that estimated in the Ligurian sea in summer. As studies in the Ligurian Sea started to extend into the autumn and winter months it was observed that indeed the number of Fin whales decreased drastically in this region only between November and January [9]. These observations still leave questions on what may be redistributing some Fin whales while not others at different times of the year, and where such redistribution is taking place. Though various researchers reveal relationships between Fin whale distribution and environmental factors [4,5], it is still difficult to predict such distribution with synergistic impacts of increasing number of factors, including noise pollution and possible changes in climatic conditions. This would indicate the need for long-term monitoring of various regions of the Mediterranean in order to assist in the conservation management of such IUCN declared Endangered species.

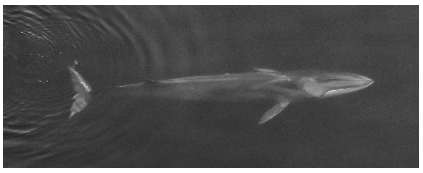

Fig. 1. Aerial photo of Fin Whale just under the water surface close to Maltese Islands

Methods

The Maltese Cetacean Research Project, ongoing in the central and southern Mediterranean Sea in an research area of 100,000Km2, around the Maltese Islands, since 1997 by the author, utilizes both aerial and marine field research surveys, to investigate cetacean abundance and distribution [10]. The Research methods adopted are those described in Vella [10]. This paper focuses on the first recorded sightings of Fin whales in coastal waters (within 5km distance from the coast) around the Maltese Islands.

Results and Discussion

A total of five Fin whale sightings were recorded in coastal waters around the Maltese Islands between July and August 2007. Out of these, four sightings in July were of single Fin whales (spotted on different days, but appeared to be the same individual residing in the same area for at least a week) and one sighting in August included two individuals (sighted once as this was followed by days with strong winds).

Cetacean projects need to focus on local to regional areas in their conservation research and management, so as to promote the long-term and dedicated year-round research and monitoring required for reliable and accurate data on these long-lives species. This first coastal Fin Whales' approach recorded in the central-southern Mediterranean region ,as part of an extensive dedicated research, may indicate range expansion or re-distribution of this species in the Mediterranean. Of course sustained research effort would allow for corroboration of these first observations. Investigating the reasons behind these approaches and planning conservation measures for such presence in high vessel traffic regions of the Mediterranean is necessary.

Tab. 1. Main observations and records linked to the first Fin whale sightings close to the coast of the Maltese islands.

Period of sightings close to Maltese Islands:	2nd week of July to 2nd week of August 2007
Average Distance from coast:	4.04 km (St. Dev = 2.09), range 2.5 to 7.5km
Average depths at sightings:	167.6 m (St. Dev = 47.71), range 85 to 200m
Other cetacean species in the area:	Common Dolphins (Delphinus delphis)
>Fishing activities in the area:	small tunas and swordfish

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