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

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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 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 100,000km^{2,} 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

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 endangered species.

The research methods adopted are those described in [10]. This paper focuses on the first recorded sighting of Fin whales in coastal waters of the Maltese Islands. 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).

Main observations and records linked to the first Fin whale sightings close to the coast of the Maltese islands include:

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

It is necessary that cetacean projects focus on local to regional areas in their conservation research and management, so as to promote the long-term and dedicated year-round research effort required for results to be more reliable and accurate. 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 100,000km^{2,} 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.

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