



TURMARES TARIFA, SPAIN (1)



UNIVERSIDAD DE GRANADA, SPAIN (2)



MNHN, LUXEMBURGO (3)



ASOCIACIÓN INACHUS, SPAIN (4)

CONTACT: mjtello@correo.ugr.es

DRAMATIC DECREASE OF SHORT-BEAKED COMMON DOLPHIN (*Delphinus delphis*) SIGHTINGS IN THE STRAIT OF GIBRALTAR

Tello, M.J. (1,2,4), Andréu, E. (1), Medina, B. (1), Gallego, P. (1,3), Acero, A. (1)

(1) Turmares Tarifa, C/ Alcalde Juan Núñez, S/N, 11380, Tarifa, Cádiz, Spain; (2) Departamento de Biología, Facultad de Ciencias, Universidad de Granada, Campus de Fuentenuova s/n 18071, Granada, Spain; (3) National Museum of Natural History, 25, rue Münster, L-2160 Luxembourg, G-D of Luxembourg; (4) Asociación INACHUS, Málaga, Spain.

INTRODUCTION

The short-beaked common dolphin is one of the four resident dolphin species of the Strait of Gibraltar. It is listed by the IUCN as critically endangered. The Strait of Gibraltar and the adjacent Alboran Sea are thought to contain the last large populations of this species in the whole Mediterranean Sea.

METHODOLOGY

Our research took place in the Strait of Gibraltar and the Bay of Algeciras from April to October 2003 though 2007. Data was collected from an opportunistic platform of observation (the whale-watching boats "Jackelin (1)" and "Dolphin Safari" (2) and included sighting frequency, group size, behaviour as well as reactions to the vessels.



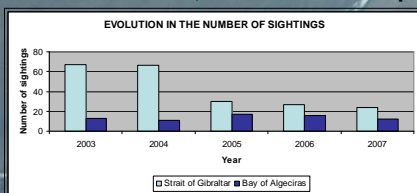
Fig.(1): Boat with glass bottom and capacity for 160 passenger.



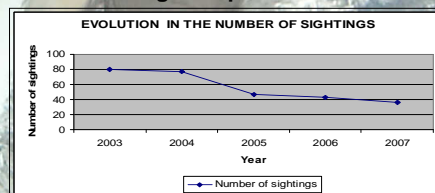
Fig.(2): Its speed makes it ideal for small groups to cross the Strait in search of all the species, specially killer whales in summer time.

RESULTS

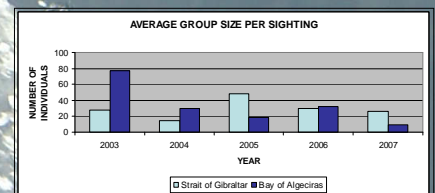
During the study period, the number of observations of common dolphins declined by 55%, and group size by 68%. These decreases are much more significant in the Strait of Gibraltar than in the Bay of Algeciras. The main causes for these decreases are probably (in order of significance): bycatch, habitat loss and prey depletion. Bycatch still takes a significant toll on this species as long driftnets are still being used in these waters, despite the ban in all Mediterranean waters. Increasing human activities (increased numbers of fast ferries and intensification of their transit, development of mega-harbours in the area) probably play an important role in the displacement of this species. Whale watching seems to be of little impact as this species is not the main targeted cetacean species in the Strait. On the other hand, this species is the main target in the Bay of Algeciras for four companies based in Gibraltar, which do not comply with whale-watching best practice.



Graph 1: The number of sightings of Common dolphin decreases more significantly in the Strait of Gibraltar than in Bay of Algeciras.



Graph 2: General decrease in sightings independently from the study zone.



Graph 3: Decrease of group size per sighting over the years.

CONCLUSIONS

From our observations we can conclude that **common dolphins population has declined** in number of sightings and group size much more in the Strait of Gibraltar than in the Bay of Algeciras. The main **causes** are probably **bycatch**, **habitat loss** and **prey depletion**. Whale watching seems to be of little impact in the Strait, as this species is not the main targeted cetacean species, but could be an important threat in the Bay of Algeciras due to uncontrolled whale watching. This fast pace could be due to either displacement or removal. It appears that the **present measures of conservation are inadequate and/or insufficient**.

ACKNOWLEDGMENTS

The research was supported by Turmares S.L. whale watching company. Thanks to everybody who worked in this project. Without their help it would not have been possible.

REFERENCES

- Cañadas, A. & Hammond, P.S. (2006) Towards conservation of the short-beaked common dolphin (*Delphinus delphis*) off the southern coast of Spain. ECS
- Ruiz-Giráldez, F. *et al.*, (2006) Algeciras Bay: a polluted area where dolphins and man co-exist. ECS
- William F. Perrin. Southwest Fisheries Science Center, La Jolla, California. Common dolphin (*Delphinus delphis*, *D. capensis*, and *D. tropicalis*).
- Heyning, J.E., and Perrin, W.F. (1994). Evidence for two species of common dolphin (genus *Delphinus*) from the eastern North Pacific. *Nat. His. Mus. Los Angeles County Contrib. Sci.* 442, 35.
- Jefferson, T. A., Leatherwood, S., and Webber, M. A. (1993). "FAO identification Guide: Marine Mammals of the World", p.320. FAO, Rome.
- Perrin, W.F., Donovan, G.P., and Barlow, J. (Eds). (1994). Gillnets and Cetaceans. *Rep. Int. Whal. Comm. Spec. Iss.* 15, 629.