

Feasibility Study: Land-based observations of cetaceans on La Gomera (Canary Islands)



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Introduction

Off La Gomera (Canary Islands), 21 cetacean species have been reported (Ritter, 2001). This extraordinary species diversity represents an outstanding potential for both scientific research and whale watching activities. Some of the species are regularly encountered close to the shore. While a boat-based study on human-cetacean interactions is going on since several years (Ritter, 2003), no effort has been made to date to systematically observe cetaceans from land. The coast of La Gomera predominantly is rocky and steep, and heights of up to several hundred metres are reached within short distances from the shoreline, thus constituting favourable conditions for such a scheme.

La Gomera has a moderate whale watching commerce, based in Vueltas (Valle Gran Rey, where much of the island's tourism is concentrated), in the southwest of the island. Whale watching has grown comparably slow during the last few years. However, a strong expansion of tourism activities can be witnessed on the island. The harbour of Vueltas is being re-built suited for large ferries and incorporating a huge marina. Hence, an expansion of seagoing tourist activities is foreseeable. This study was conducted to obtain preliminary knowledge about the following questions:

- a) Are behavioural observations of cetaceans from an elevated viewpoint possible?
- b) Is it possible to observe interactions between boats and cetaceans? and
- c) Is it feasible to direct whale watching boats to groups of cetaceans spotted from land?

Materials & Method

In October 2002, a suitable vantage point was searched for. The south coast of La Gomera is largely uninhabited with not many roads and pathways, existing ones often are in a bad condition. Several locations were verified for their accessibility. A viewpoint was chosen, lying at the tip of the "Lomo de Arguyaoda", approximately 160 m above sea level. Observations were made from 04-10 October 2002. A *KOWA Prominar TSN-3* telescope with 20x, 30x wide angle and 20-60x oculars, mounted on a Manfrotto 144B tripod, and a standard pair of binoculars (8x) were used. Communication between the observer on land and skippers on board of whale watching vessels was established via mobile phones.

Results

A total of 13 h 25 min of sighting effort was made, resulting in five cetacean sightings and 2 h 53 min of observation (22% of sighting effort). During three sightings, the species could be determined: bottlenose dolphin (*Tursiops truncatus*, two sightings) and pilot whales (*Globicephala macrorhynchus*). During two sightings, either bottlenose or rough-toothed dolphins (*Steno bredanensis*) were seen. The distance of the groups varied from approximately 1-3.5 nm from shore.

During four sightings it was possible to conduct behavioural observations by determining group formation, movement patterns, travel direction and recording individual behaviours like breaches, leaps, etc. Interactions of cetaceans with whale watching boats were recorded in three instances: the swimming direction in relation to the boat was identified and bowriding behaviour was recorded. On 10 October, a whale watching boat was directed to a group of pilot whales via mobile phone.

Discussion

The idea of land-based observations of cetaceans and to guide boats to cetaceans sighted from land originates in the Azores, where so called "vigias" (Gordon & Matthews, 1999) are used for these purposes since many years (Hoyt, 2001). With this study it was demonstrated that this is principally feasible also on Gomera. We were able to show that

- observations of cetacean behaviours and their interactions with boats are feasible and
- it is realistic to direct whale watching boats to cetaceans spotted from land.

These results will add to the development of a detailed, land-based study. The aim is to establish a practical and methodological basis for monitoring cetacean abundance and behaviour, as well as vessel activities and interactions with cetaceans in the South of La Gomera. Moreover, the possibility to direct whale watching boats to cetaceans can be used to improve sighting success of whale watchers.

This study has great relevance to the development of whale watching on a sustainable ground on La Gomera: if more boats will set out to search cetaceans on a regular basis, with a land-based look-out it will be possible to

- disperse boat presence over a greater area, thus minimising the total time cetacean groups are subjected to boat presence
- monitor whale watching boat activities and control their compliance to the Canarian whale watching regulations

It is also thinkable to observe and document reactions of cetaceans to fast ferries operating in the area. For these reasons, it is recommended to establish a permanent outlook on the coast of La Gomera.

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