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Occurrence of a lone juvenile bottlenose dolphin in the Alvor estuary, Portugal

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INTRODUCTION

Solitary dolphins have been reported worldwide and the number of occurrences seems to be increasing (Frohoff *et al.*, 2006). These reports concern several species of odontocetes, such as the killer whale (*Orcinus orca*), the beluga (*Delphinapterus leucas*) and other small delphinids, but the most reported species is the bottlenose dolphins (*Tursiops truncatus*) (Wilke *et al.*, 2005; Frohoff *et al.*, 2006). In late July 2011 a juvenile bottlenose dolphin of unknown gender was first reported by local fishers in the Alvor estuary, Portugal. It was seen daily in the area until the end of September of the same year. The present work reports this occurrence.

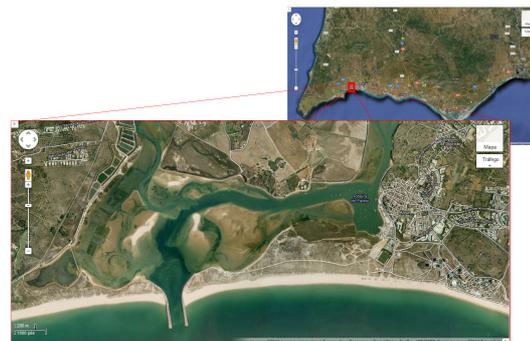


Fig. 1 – Map of the Alvor estuary, Portugal



Fig. 2 – Solitary dolphin in Alvor displaying scars of unknown origin

MATERIALS & METHODS

The Alvor estuary (Fig. 1) is used by fishers and a few touristic companies that operate in Alvor and cross the estuary to reach the ocean.

A juvenile bottlenose dolphin was observed around the mouth of the estuary. Despite showing several scars and wounds of unknown origin on the dorsal region and tail stock (Fig. 2), it appeared to be in a good physical condition and well fed.

The dolphin occupied the area around the jetties and 500 m seawards. Its surface behaviour and activities were observed for approximately 60 hours from a land-based point at the jetty on the entrance of the estuary (Fig. 3). There wasn't any interaction between the observer and the animal, and photographic registry was made from the same point. Local fishers were interviewed for additional information.

RESULTS

Most of the time the dolphin was seen swimming around the entrance of the estuary with a mean dive time of 2 minutes. It displayed, in general, a very shy behaviour avoiding humans and boats, unlike most of the reported cases. More activity was observed, such as aerial behaviours, whenever the animal was at least 500 m away from the estuary mouth seawards. The tidal state didn't seem to influence its activities.

DISCUSSION AND CONCLUSION

Although this juvenile seemed to be on the first stage described by Wilke and colleagues (2005), avoiding humans, this event posed a great opportunity for cooperation and awareness with the local community, namely fishers that usually have daily and long-term contact with these marine animals. It was also a good occasion to improve their understanding on the importance of preserving these species, since the dolphins are frequently pointed by fishers to be responsible for impacting negatively various fisheries. Furthermore, tourists were as well a target for environmental education outreach as the dolphin was easily spotted from land during the summer season.

References

- Frohoff, T., Vail, C.S. & Bossley, M. (2006). Preliminary proceedings of the workshop on the Research and Management of Solitary, Sociable Odontocetes convened at the 16th Biennial Conference on the Biology of Marine Mammals, San Diego, California.
- Wilke, M., Bossley, M., & Doak, W. (2005). Managing human interactions with solitary dolphins. *Aquatic Mammals*, 31, 427–433.

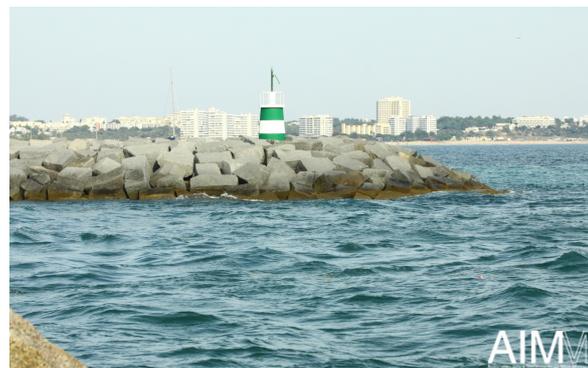


Fig. 3 – Jetty from which the observations were made

Acknowledgments

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