



SHORT DESCRIPTION OF A NEAR-MISS EVENT INVOLVING A LARGE VESSEL AND HUMPBACK WHALES (*MEGAPTERA NOVAEANGLIAE*) OFF ANTARCTICA



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INTRODUCTION

During recent decades, with the rapid development of shipping traffic, the worldwide number of collisions seems to be increasing (Laist *et al.*, 2001; IWC, 2008). Cetacean species affected include both large whales and small cetaceans like dolphins, beaked whales a.o. (see review by Van Waerebeek *et al.*, 2007). One of the species which apparently is hit regularly, is the humpback whale (*Megaptera novaeangliae*) (Ritter, 2009; Van Waerebeek *et al.*, 2007; WDCS, 2006). Large vessel ship strikes are rarely observed directly, and the same apparently accounts for near miss events. Hence, detailed descriptions of near-miss events currently are missing in the scientific literature. Here a near-miss event, observed from a large vessel, is described.

METHOD

The observations were made from the bridge of a German cruise ship, a motor vessel of 123 metres length, during a regular "expedition cruise" along the Antarctic Peninsula. At the time of the described event, I was standing on the bridge and the peaks of the ship as an outlook for cetaceans and other marine wildlife, approximately 12.5m above the sea surface. The sea was scanned for wildlife, e.g. penguins, seals and cetaceans by naked eye and with binoculars.



RESULTS

On 22 February 2009, the vessel encountered two humpback whales while approaching Cuverville Island (Antarctic Peninsula, approx. 64°43'S, 62°36'W). The animals were sighted at a distance of approximately 500 metres in front of the ship, roughly 20° on port side. The animals were logging on the surface for longer periods of time, moving very slowly, orientated towards the path of the vessel, and intermittently leaving the surface.

The ship travelled at a speed of less than 10 knots in a straight direction, thereby closing in on the whales without purposefully approaching them. The whales then left the surface and surfaced again after a minute or so, now being much closer (estimated 100 m). The chief mate realized that the vessel was on a collision course now, therefore he instructed the helmsman to avoid the whales.

The animals did not show any reaction until the vessel was within a few metres. At a distance of about 10 m, one of the whales appeared to "wake up". First it turned away from the vessel relatively slowly, but then showed a startle reaction and sharply as well as vigorously turned to the left, away from the vessel. The other whale then also reacted, forcefully performing a full turn while diving away from the ship (in the opposite direction of its mate). Both whales caused a lot of splashing during their last-second manoeuvres. The ship had come up to approximately 3 metres of the whales, but did not collide with the animals.



DISCUSSION

Collision cases with cruise ship have been reported several times in the past (Jensen & Silber, 2004; Laist *et al.*, 2001; Brownell *et al.*, 2009). Mostly these cases involved whales stuck on the bow, thus the accident being recognised only upon arrival at a harbour. The vessel described here also had a collision in 2007, when it hit a humpback whale which was stuck on the bow. Therefore, we can suggest that ship strikes involving cruise ships, albeit the potentially large number of crew members and guests being "alert", do occur more often than actually recognised or reported. Likewise, it is suspected that near misses are much more frequent than generally thought, a problem that is well recognized for actual strikes since very long.

The avoiding manoeuvres of the whales were remarkable. Even more striking, though, was the fact that these were last-second responses in a true sense. The animals' behaviour just prior to the near miss event indicated that the animals were resting. Apparently they neither saw nor heard the vessel in a way that made them aware of the vessel and a risk of collision. The observations made here also may explain, at least in part why humpback whales as a species generally are affected by ship strikes relatively often (Ritter, 2009; Van Waerebeek *et al.*, 2007; WDCS, 2006).

Finally, the case reported here underlines the fact that large whales might not respond "automatically" to the approach of a large vessel. Hence, slow vessel speed only, as well as placing dedicated observers might not be enough to generally avoid collisions.

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The Figures shown on this poster were NOT taken during the incident described here, although they are illustrative of the whales' behaviour before and during the near miss event.