## **Short Note**

## The First Confirmed At-Sea Sighting of Longman's Beaked Whale (*Indopacetus pacificus*) in Kenyan Waters

Teresa M. Martin and Maja Nimak-Wood

Gardline, Admiralty Road, Great Yarmouth, Norfolk, NR30 3NG, UK E-mail: maja.nimak-wood@gardline.com

The Longman's beaked whale (Indopacetus pacificus; otherwise known as tropical bottlenose whale or Indo-Pacific beaked whale) is regarded to be one of the least known cetaceans in the world (Jefferson et al., 1993; Rice, 1998; Dalebout et al., 2003; West et al., 2013). There is no information on population trends or global abundance of Longman's beaked whales; hence, this species is categorized as *Data Deficient* in the International Union for Conservation of Nature's Red List (Taylor et al., 2008). Prior to 1999, Longman's beaked whales had been known only from three skull specimens found in Australia (Longman, 1926), Somalia (Azzaroli, 1968), and Kenya (Dalebout et al., 2003). More recently, a review by Yamada et al. (2012) listed details of more than 15 strandings and several at-sea sightings for this species. Geographic information of at-sea sightings was not provided, yet the locations of strandings included Australia, China, Hawaii, Japan, Kenya, Maldives, Myanmar, Philippines, Somalia, South Africa, and Taiwan. In addition to Yamada et al., strandings of Longman's beaked whales also have been recorded in Sri Lanka, India, the Andaman Islands, and New Caledonia, respectively (Afsal et al., 2009; Kaladharn et al., 2014; U.S. National Museum (USNM), 2015; Garrigue et al., 2016).

Live, at-sea sightings of a Longman's beaked whale in the past were rare, probably because of misidentifications (Pitman et al., 1999). At-sea identifications became more reliable after the publication of research detailing genetics, morphology, and other distinctive features of the species (Dalebout et al., 2003). Following this, the number of confirmed at-sea sightings increased significantly. Based on strandings and sighting locations, Longman's beaked whales are known to inhabit deep waters in tropical and subtropical regions of the Indian and Pacific Oceans (Yamada et al., 2012). Furthermore, Anderson et al. (2006) suggest that due to the frequency of sightings in the western

Indian Ocean, this may be a key habitat for this species. It also has been observed that Longman's beaked whales are usually sighted travelling in tightly formed groups and in waters warmer than 26° C (Pitman et al., 1999; Anderson et al., 2006; Rankin et al., 2011). This short note reports what we believe to be the first live, at-sea sighting of Longman's beaked whales in Kenyan waters.

On 17 October 2014, a group of approximately 20 Longman's beaked whales were observed and photographed (02° 08' 59" S, 43° 55' 87" E) in favorable weather conditions (good visibility, 5 km+, Beaufort sea state 3, and a northeasterly wind [12 to 19 km/h]) during a geophysical seismic survey (Figure 1). The location of the sighting was in the Kenyan Economic Exclusion Zone (EEZ) at a water depth of 3,707 m. The group was observed interacting with a pod of approximately 50 bottlenose dolphins (Tursiops truncatus) and displayed travelling and breaching behaviour (Figure 2). The dolphins were sighted approaching within two whale body lengths (i.e., 12 m) of the Longman's beaked whales, which continuously moved in a tight travelling group, with one whale breaking this pattern to breach three times. Later in the encounter, the bottlenose dolphin pod broke into several subgroups, with some dolphins approaching the vessel to bow ride and others continuing to travel with the Longman's beaked whales. There was a lot of surface movement during the encounter suggesting some level of underwater interaction as well.

The group was identified as Longman's beaked whales based on their size, relatively steep melons, and their moderate tube-like rostrums. The large, falcate dorsal fin was located behind the midpoint of the back (Pitman et al., 1999; Afsal et al., 2009; Jefferson et al., 2015) (Figure 3). The animals were a medium grey colour. The dorsal side of the animal was a darker grey, while the belly was substantially lighter. The most distinguishing characteristic was the lighter pigmented areas on

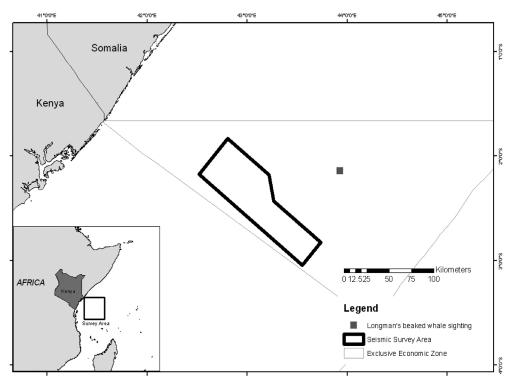


Figure 1. Location of Longman's beaked whale (*Indopacetus pacificus*) sighting within the Kenyan Economic Exclusion Zone (EEZ)

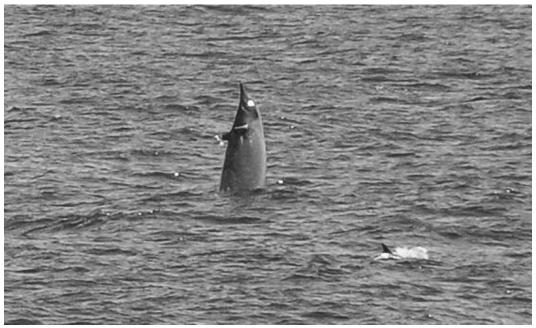


Figure 2. A breaching Longman's beaked whale in Kenya on 17 October 2014; note the white circle on the whale is sun glare. (Photo credit: Teresa M. Martin, Gardline)



**Figure 3.** Four surfacing Longman's beaked whales in Kenya on 17 October 2014; note the clearly visible and directed slightly forward blow, the relatively steep melons, and moderate tube-like rostrums. (Photo credit: Teresa M. Martin, Gardline)



**Figure 4.** Eleven Longman's beaked whales travelling in a tightly formed group in Kenya on 17 October 2014; note the large, falcate dorsal fins and the pale grey melons. (Photo credit: Teresa M. Martin, Gardline)

either side of the head, just behind the eye. The clearly visible blow was low, bushy, and directed slightly forward (Pitman et al., 1999; Anderson et al., 2006; Afsal et al., 2009; Figure 3).

Based on previous at-sea observations of Longman's beaked whales, recorded in the western Indian Ocean, this species travels in tightly formed groups of 10 or more individuals (Pitman et al.,

1999; Anderson et al., 2006). Our sighting supports this information as the approximately 20 individuals were observed travelling in a tightly formed group (Figure 4). This group was thought to consist of adults based on their body size (approximately 6 m in length) and the obvious crease between the melon and rostrum (Jefferson et al., 2015). No evidence of calves was found. However, it is not

unusual for calves of marine mammals to remain unseen during sightings as they generally swim next to their mothers, who may have been obscuring their presence (based on author's field experience with photo identification of Odontocetes). Similar to observations by Pitman et al. (1999) and Anderson et al. (2006), this group was associated with a pod of bottlenose dolphins.

At-sea sightings of Longman's beaked whales are notably more frequent in the western Indian Ocean than in the Pacific region (Anderson et al., 2006). Yet despite this, there have been no previous at-sea sightings in Kenyan waters to date. This could be explained by Kenyan marine mammal research being restricted to opportunistic sightings, reports, and data collected in shallow coastal waters (Kenya Marine Mammal Network, 2013). Our findings confirm that Longman's beaked whales have a presence in Kenya, which signals the potential for further research into this species in the area. This note also contributes to the identification of this species at sea and to the knowledge of its geographical distribution.

## Acknowledgments

The authors are grateful to Dolphin Geophysical for their approval to use the dataset collected during this survey, which was conducted on behalf of their client.

## **Literature Cited**

- Afsal, V. V., Manojkumar, P. P., Yousuf, K. S. S. M., Anoop, B., & Vivekanandan, E. (2009). The first sighting of Longman's beaked whale, *Indopacetus pacificus*, in the southern Bay of Bengal. *Marine Biodiversity Records*, 2, e133. http://dx.doi.org/10.1017/S1755267209990510
- Anderson, R. C., Clark, R., Madsen, P. T., Johnson, C., Kiszka, J., & Breysse, O. (2006). Observations of Longman's beaked whale (*Indopacetus pacificus*) in the western Indian Ocean. *Aquatic Mammals*, 32(2), 223-231. http://dx.doi.org/10.1578/AM.32.2.2006.223
- Azzaroli, M. L. (1968). Second specimen of Mesoplodon pacificus, the rarest living beaked whale. Monitore Zoologico Italiano (N.S.), 2(Supplement), 67-79.
- Dalebout, M. L., Ross, G. J. B., Baker, C. S., Anderson, R. C., Best, P. B., Cockcroft, V. G., . . . Pitman, R. L. (2003). Appearance, distribution, and genetic distinctiveness of Longman's beaked whale, *Indopacetus pacificus. Marine Mammal Science*, 19(3), 421-461. http:// dx.doi.org/10.1111/j.1748-7692.2003.tb01314.x
- Garrigue, C., Oremus, M., Dodémont, R., Bustamante, P., Kwiatek, O., Libeau, G., . . . Dalebout, M. L. (2016). A mass stranding of seven Longman's beaked whales (*Indopacetus pacificus*) in New Caledonia, South Pacific. *Marine Mammal Science*. http://dx.doi. org/10.1111/mms.12304

- Jefferson, T. A., Leatherwood, S., & Webber, M. A. (1993).
  FAO species identification guide: Marine mammals of the world. Rome: U.S. Environmental Programme, Food and Agriculture Organisation of the United Nations (FAO).
- Jefferson, T. A, Webber, M. A., & Pitman, R. L. (Eds.). (2015). Marine mammals of the world: A comprehensive guide to their identification (2nd ed.). London: Elsevier/ Academic Press.
- Kaladharn, P., Asokan, P. K., Mohammed Koya, K., & Bhint, H. M. (2014). Plastic debris in the stomach of a Longman's beaked whale, *Indopacetus pacificus* (Longman, 1926) stranded off Sutrapada, Veraval, Saurashtra coast, India. *Marine Biological Association* of *India*, 56(2), 92-94.
- Kenya Marine Mammal Network. (2013). Kenya Marine Mammal Network. Retrieved from www.kenyamm network.wix.com/kmmnetwork
- Longman, H. A. (1926). New records of cetacean, with a list of Queensland species. *Memoirs of the Queensland Museum*, 8(3), 266-278.
- Pitman, R. L., Palacios, D. M., Brennan, P. L. R., Brennan, B. J., Balcomb III, K. C., & Miyashita, T. (1999). Sightings and possible identity of a bottlenose whale in the tropical Indo-Pacific: *Indopacetus pacificus? Marine Mammal Science*, 15(2), 531-549. http://dx.doi.org/10.1111/j.1748-7692.1999.tb00818.x
- Rankin, S., Baumann-Pickering, S., Yack, T., & Barlow, J. (2011). Description of sounds recorded from Longman's beaked whale, *Indopacetus pacificus*. *JASA Express Letters*. http://dx.doi.org/10.1121/1.3646026
- Rice, D. W. (1998). Marine mammals of the world: Systematics and distribution (Special Publication No. 4). Lawrence, KS: The Society for Marine Mammalogy, Allen Press Inc. ISBN 1491 276-03-4
- Taylor, B. L., Baird, R., Barlow, J., Dawson, S. M., Ford, J., Mead, J. G., . . . Pitman, R. L. (2008). *Indopacetus paci*ficus. In International Union for Conservation of Nature (IUCN) (Ed.), *The IUCN red list of threatened species* 2008. http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS. T40635A10345818.en
- U.S. National Museum (USNM). (2015). Smithsonian Institution, National Museum of Natural History. Retrieved from http://collections.mnh.si.edu/search
- West, K. L., Sanchez, S., Rotstein, D., Robertson, K. M., Dennison, S., Levine, G., . . . Jensen, B. (2013). A Longman's beaked whale (*Indopacetus pacificus*) strands in Maui, Hawaii, with first case of morbillivirus in the central Pacific. *Marine Mammal Science*, 29(4), 767-776.
- Yamada, T. K., Tajima, Y., Yatabe, A., Pitman, R., & Brownell, R. L., Jr. (2012). Review of current knowledge on Indopacetus pacificus including identification of knowledge gaps and suggestions for future research (Document SC/64/SM32). Submitted to the Scientific Committee, the 64th International Whaling Commission, Panama City. Retrieved from https://swfsc.noaa.gov/publications/CR/2012/2012Yamada1.pdf