

## Short Note

### First Record of the Short-Finned Pilot Whale (*Globicephala macrorhynchus*) in the Chinese Beibu Gulf

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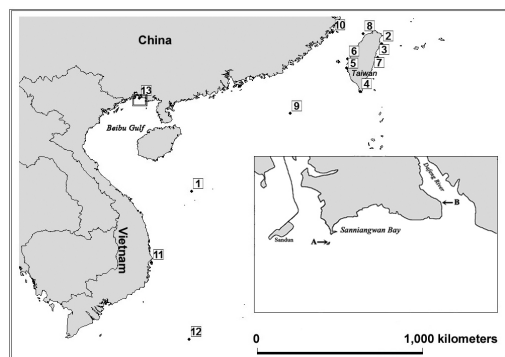
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The short-finned pilot whale (*Globicephala macrorhynchus*) is one of the two species in the genus *Globicephala* and occurs mostly in deep offshore waters in tropical to warm-temperate seas worldwide (Reilly & Shane, 1986). Though widely distributed, there have been only a few reports of its occurrence in Chinese and adjacent waters. In 1992, the carcass of a 4.3-m-long male individual was found in the Xisha Islands of the South China Sea (16° 32' N, 111° 36' E; see point 1 in Figure 1) (Liu, 1996). In 1998, a population of about 45 individuals was found near Yilan County of Taiwan (see point 2 in Figure 1) (Chen et al., 1998). In 2000, there were two sightings of small pods near Hualien County and Kenting National Park of Taiwan (see points 3 & 4 in Figure 1) (Wang & Yang, 2007). Wang & Yang (2007) reviewed the strandings of short-finned pilot whale in Taiwan and found that in comparison with only one stranding report near Tainan County before 2004 (see point 5 in Figure 1), several incidents were observed in 2004, including a massive stranding of nine to ten whales in Taidong County (see point 6 in Figure 1), two individual strandings in Tainan and Yunlin Counties (see points 5 & 7 in Figure 1), a successful rescue of a stranded individual in Taoyuan County (see point 8 in Figure 1), and a bycatch record in Hualien County (see point 3 in Figure 1). Moore & Lien (2007) reported sightings of a small pod of six individuals in the Dongsha Islands of the South China Sea in 2005 (along 21° N, between 116.5° and 118° E) (see point 9 in Figure 1). More recently, a live stranding was reported in Putian, Fujian Province (see point 10 in Figure 1) (Huang et al., 2012). As our research area is adjacent to Vietnam, we also reviewed the occurrence records there and found only two records, including a skull identified at the Dam Mon whale temple (see point 11 in Figure 1)

(Smith et al., 1995) and an individual caught alive and released during a marine resource survey between 1995 and 1996 (8° 32' N, 111° 28' E; see point 12 in Figure 1) (Smith et al., 2003).

Herein, we report the first record of a short-finned pilot whale stranding in Chinese waters of the Beibu Gulf (Gulf of Tonkin). On 3 February 2010, we found a carcass of a short-finned pilot whale on the beach of Damiaodun Island in the Sanniangwan Bay (21.59° N, 108.74° E; see point A in Figure 1). When found, the carcass was highly decomposed, with the skin peeled away and the blubber fat exposed (Figure 2B) so that an autopsy could not be performed. However, we recorded 23 body measurements as described in Table 1, counted teeth, and took samples of teeth and skin for further examination. The whale was 364 cm in body length; the teeth count was 12 on the upper jaw and 16 on the lower jaw. Other measurements

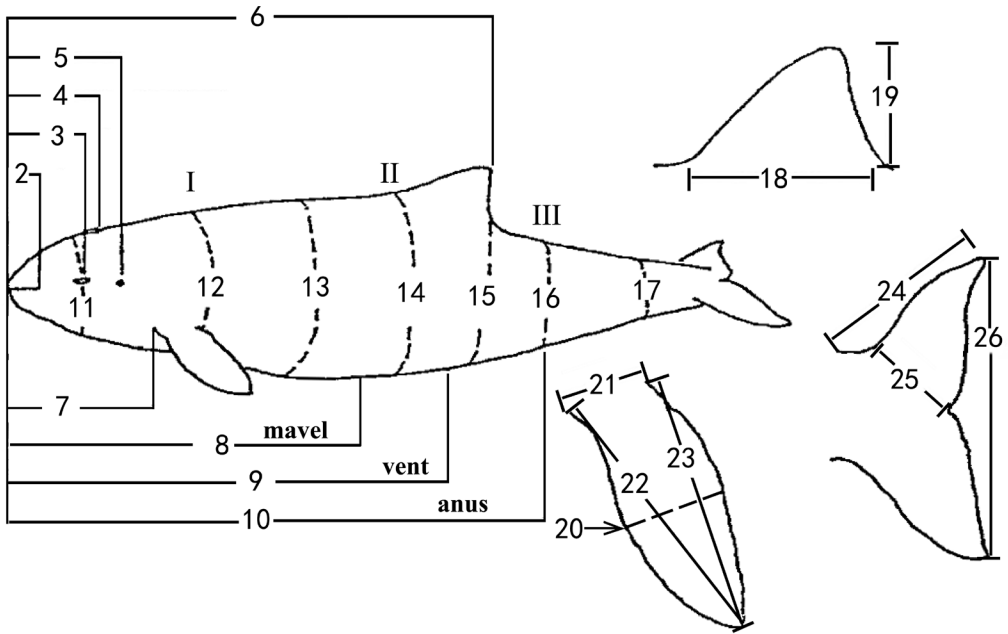


**Figure 1.** Occurrence records of short-finned pilot whales (*Globicephala macrorhynchus*) in China and nearby waters. Point 13 indicates the location where the individual reported in this note was stranded.



**Figure 2.** Status of the short-finned pilot whale: (A) The photo was provided by the fishery administrative officers when the whale was found alive on 10 January 2010, and (B) the photo of the decomposed whale was taken on 3 February 2010.

**Table 1.** Body measurements of the short-finned pilot whale (*Globicephala macrorhynchus*) carcass found on 3 February 2010; the corresponding items are shown in the figure. NS means that the measurement item was not surveyed due to decomposition.



Number	Measurement item	Value (cm)
1	Total length	364
2	Snout to gape	34
3	Snout to eye	42
4	Snout to blowhole	43
5	Snout to ear	NS
6	Snout to dorsal fin tip	155
7	Snout to flipper	59
8	Snout to navel	NS
9	Snout to vent (genital cleft)	NS
10	Snout to anus	250
11	Girth at eye	170
12	Girth at axilla	234
13	Girth midway axilla to dorsal fin	242
14	Girth, maximum	252
15	Girth at posterior dorsal fin	250
16	Girth at anus	122
17	Girth midway anus to notch	100
18	Dorsal fin base length	59
19	Dorsal fin height	24
20	Flipper width, maximum	15
21	Flipper width, base	12
22	Flipper length, anterior	49
23	Flipper length, posterior	40
24	Fluke length	46
25	Fluke width	24
26	Distance between two fluke tips	91



are listed in Table 1. The whale was a female, probably a juvenile, based on body length. As the whale was tied with ropes (Figure 2B), we guessed that it may have been moved here by someone. Through investigation, we confirmed this speculation. The local fishery administrative officers found this whale (Figure 2A) live-stranded on the Shajiao Beach at the Dafengjiang River estuary (21.64° N, 108.86° E; see points 13 & B in Figure 1) on 10 January 2010. They tried to return the whale to sea but failed, and the whale died within a few minutes. They then moved and buried the carcass on the beach of Damiaodun Island where we found it 23 d later.

The Sanniangwan Bay, where the short-finned pilot whale was found, is the northernmost continental shallow sea of the Beibu Gulf. It ranges from Sandun in the west to the Dafengjiang River estuary in the east, with an east-west distance of approximately 20 km and a north-south distance of 15 km (Figure 1) (Wang, 2012). The isobaths run parallel to the coastline with a shallow slope. The continental shelf is quite flat, and the offshore waters are relatively shallow, with an overall water depth of no more than 15 m. The bay provides habitat and refuge for the Indo-Pacific humpback dolphin (*Sousa chinensis*) and the Indo-Pacific finless porpoise (*Neophocaena phocaenoides*). The long-beaked common dolphin (*Delphinus capensis*) and the pantropical spotted dolphin (*Stenella attenuata*) may also occur here occasionally based on the information from travelers and local fishers. All four of these cetacean species are smaller in size than the short-finned pilot whale. As mentioned above, the short-finned pilot whales normally live in deeper waters (Chen et al., 1998; Smith et al., 2003; Moore & Lien, 2007; Wang & Yang, 2007); therefore, the Sanniangwan Bay is too shallow for them to reside within it. The short-finned pilot whale found in this study may have separated from its pod in deeper water and drifted to the Beibu Gulf. In the absence of an autopsy, we were not able to identify possible causes for the stranding. More information may have been gained if we had been informed when the whale was first found. We have proposed a stranding response protocol to the local fisheries administrative office that will allow in-depth investigations, including autopsies of fresh cetacean carcasses when they are found.

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