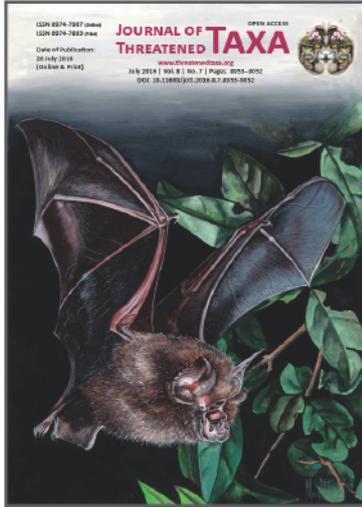


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### NOTE

**A RECENT RECORD OF THE INDO-PACIFIC HUMPBAC DOLPHIN *SOUSA CHINENSIS* (OSBECK, 1765), (MAMMALIA: CETARTIODACTYLA: DELPHINIDAE) FROM THE WESTERN SHORES OF KACHCHH, GUJARAT, INDIA**

Devanshi Kukadia, Mayurdan K. Gadhavi, N. Gokulakannan, G.V. Gopi, Gautam Talukdar & K. Sivakumar

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The Indo-Pacific Humpback Dolphin *Sousa chinensis* (Osbeck, 1765), is widely distributed in the shallow coastal and inshore waters of the eastern and western Indian ocean and northwestern, southwestern, and western central Pacific oceans (Reeves et al. 2008). Indo-Pacific Humpback Dolphins have been recorded all along the Indian coast by (Blandford 1888–91; Lydekker 1903, 1908; Mohan 1982, 1983; Krishnapillai & Kasinathan 1988; Parsons 1998; Kumarran 2002; Sutaria & Jefferson 2004; Afzal et al. 2008; Muralidharan 2013). *S. chinensis* comes under 'Near Threatened' (NT) category on the IUCN Red List (Reeves et al. 2008) but it is included in Appendix I of the Conservation of International Trade of Endangered Species of Flora and Fauna (CITES) and listed in Appendix II of the Convention on Migratory Species (CMS). So far, studies on cetaceans in India were limited to age determination (Mohan 1995), stomach contents (Leatherwood & Reeves 1989), molecular identification (Jayashankar et al. 2008) and behaviour (Bijukumar & Smrithy 2012; Muralidharan 2013). However, detailed studies on the behaviour and ecology of *S. chinensis* have not been adequately covered throughout its range and therefore only limited knowledge is available about the ethology of this species inhabiting the western coasts of India.

Indo-Pacific Humpback Dolphins occur in near shore shallow waters, generally at 20m depth, often near estuaries (Ross et al. 1994). Water depth is probably the main factor limiting their offshore distribution, and the

## A RECENT RECORD OF THE INDO-PACIFIC HUMPBACK DOLPHIN *SOUSA CHINENSIS* (OSBECK, 1765), (MAMMALIA: CETARTIODACTYLA: DELPHINIDAE) FROM THE WESTERN SHORES OF KACHCHH, GUJARAT, INDIA

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25m isobath has been suggested to represent the critical depth in the South African region (Karczmarski et al. 2000). These dolphins have also been reported to occur in a variety of coastal habitats including sandy beaches, enclosed bays and coastal lagoons, mangrove channels, over sea grass meadows, around rocky and coral reefs, and in turbid estuarine waters (Beardon 1991; Durham 1994; Jefferson 2000; Karczmarski 2000; Karczmarski et al. 2000).

Gujarat has a coastline of 1650km (21.9% of the Indian coastline), which is the longest among all the maritime states of India. The Gujarat coastline has two gulfs, namely, the Gulf of Kachchh and Gulf of Khambhat, and it comprises a variety of habitats such as mangroves, coral reefs, mudflats, sands/beaches, salt marshes, rocky area, salt pans and other vegetated areas and it provides a suitable niche for a variety of marine animals

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**Image 1 . (a) Location of the dolphin sighting 1(b) Gujarat map showing Jakhau.**

including marine mammals. The Zoological Survey of India has reported three species of dolphins such as the Spinner Dolphin, the Long-Beaked Common Dolphin, Striped Dolphin, and the Indo-Pacific Hump-backed Dolphin from Gujarat (Kumarran 2012). Joglekar et al. 1977 reported some stranded dolphins from Devka and Udwada, southern Gujarat based on skeletal evidence, but their identification was not confirmed. Sutaria & Jefferson (2004) recorded 21 groups of *S. chinensis* that consisted of 78 individuals from the southern Gulf of Kachchh. These individuals were largely found at a depth of from 1–10 m and the average group size remained between 1.5 and 3.0 individuals.

Jakhau port (23°14'27.96"N & 68°36'26.27"E) is an important seasonal fishing centre in the Kachchh District of Gujarat. A total of six individuals of *S. chinensis* was observed near the Jakhau creek, which is the western part of the Gulf of Kachchh (Image 1). The GPS location of the sighting was 23°14'28.5"N & 68°35'54.0"E. The dolphins were spotted at mid-high tide on 03 December 2014 at 09.53hr (IST). These dolphins were found less than 10m away from the shore at a depth of 1–10 m. The dolphins were observed for a time period of 20 minutes. The dolphins while leaping continuously, kept following the boat for sometime and approached



**Image 2. The short dorsal fin atop a prominent wide dorsal hump**



**Image 3. Shape of head and the long beak of the Humpback Dolphin.**



**Image 4. Humpback Dolphins very close to the sea shore**

as close as 5m during certain occasions (Images 2–4). These dolphins were also observed at the same time at the same location the following day. A questionnaire survey of nearby fishermen had confirmed that these dolphins were seen in this part of Gujarat during winter. Therefore, it is assumed that weather condition and prey availability is favorable for this species during this period. This is the first record of *S. chinensis* in the western shore of Kachchh District; a detailed study regarding the distribution of this species is required across the creek system of Western Kachchh.

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