

First Record of Sowerby's Beaked Whale (*Mesoplodon bidens*) on México's Coast and the Caribbean Sea

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Sowerby's beaked whales (*Mesoplodon bidens*; Sowerby, 1804) are the most northerly species of the genus *Mesoplodon* in the Atlantic Ocean where they inhabit temperate to sub-Arctic waters (Jefferson et al., 2008). These whales are endemic to the North Atlantic Ocean where their distribution is primarily on shelf breaks and in oceanic waters associated with deep canyons (Waring et al., 2009). It is the most commonly stranded species among *Mesoplodon* in Europe (Bachara et al., 2014).

On 13 June 2018, an unidentified cetacean stranded alive on the Playacar Beach in Playa del Carmen, Quintana Roo, México (20° 36' 15.18" N, 87° 5' 19.48" W; Figure 1A). It was reported to the Marine Mammal Stranding Network of Quintana Roo, but the whale was helped back to the sea immediately by tourists, and there were no further reports about it.

We analyzed multimedia material (including photographs and videos) of the event, and from that we were able to identify the specimen as an adult male Sowerby's beaked whale of approximately 5.3 m in body length. Positive identification was possible by head, rostrum, and mouth anatomy, but mostly because of the shape and position of the teeth (Figure 1B).

Stranding events represent excellent opportunities to obtain valuable biological, ecological, and biogeographical information about species that are difficult to observe in the wild. Particularly for ziphiid species, basic biological information, such as confirmation of the species inhabiting the Caribbean Sea and their distribution patterns,

is nonexistent (Bay & Island, 1999). Herein, we describe the first record of a Sowerby's beaked whale in Mexican waters and, by extension, in the Caribbean Sea. This observation must be considered extralimital of the species' usual North Atlantic Ocean range.

At least 442 stranded Sowerby's beaked whales have been documented in 410 stranding events between 1803 and 2021 (Bachara et al., 2014; W. Bachara, unpub. data, 2014 to present), and most of them occurred in the eastern North Atlantic Ocean. In the western North Atlantic, only a few records of this beaked whale have been documented from Canada and the United States (Bachara et al., 2014). In addition to the observation reported herein, other extralimital records of Sowerby's beaked whales are from Italy, France, Florida (Gulf of Mexico side), Dominican Republic (Atlantic Ocean side), and Brazil (Brunelli & Fasella, 1929; Bonde & O'Shea, 1989; Simões-Lopes & Ximenez, 1993; Bompar, 2000; Bachara et al., 2014; Bittau et al., 2017), suggesting a possible southward expansion into tropical waters from their historic range.

The present observation provides a better perspective on the number of species that could inhabit the waters of México and the Caribbean Sea, highlighting the need for further studies to update the distribution and abundance of marine mammals, especially along shelf breaks and other oceanic environments. This record expands our perspective on the number of confirmed marine mammal species for the Mexican Caribbean from 19 to 20 (Niño-Torres et al., 2015; García-Rivas et al., 2019).

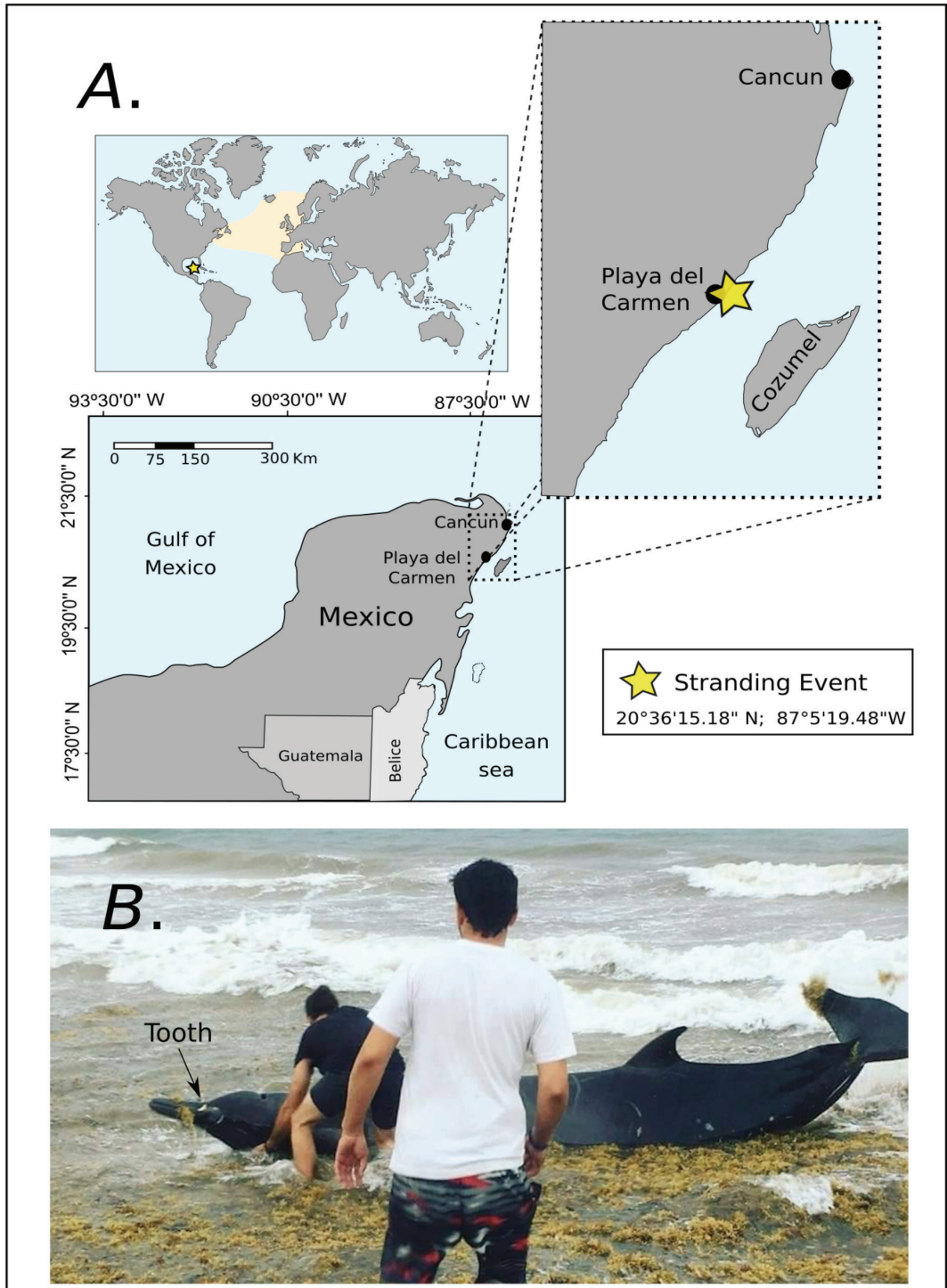


Figure 1. (A) Stranding record of Sowerby's beaked whale (*Mesoplodon bidens*) on Mexico's coast. The upper left world map also shows the typical distribution of this species in the North Atlantic (beige-shaded area; Bittau et al., 2017); and (B) the live whale being helped back to the sea by tourists.

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