

NOTA CIENTÍFICA

First record of fin whale *Balaenoptera physalus* in the Mexican Caribbean

Primer registro de la ballena de aleta *Balaenoptera physalus* para el Caribe mexicano

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ABSTRACT

Background. Until 2015, the aquatic mammal's biodiversity in the Mexican Caribbean was unknown, but that year 18 species were confirmed to be distributed in this region, none of them a Rorqual species. **Goals.** The aim of this study is to report on the first record of a Balaenopteridae whale in the Mexican Caribbean. **Methods.** The CONANP and RVMMEQR attended a stranding event at the Isla Contoy National Park. **Results.** On August 2, 2018, a stranded alive whale was found. The animal was identified as a ~18m (in length) fin whale *Balaenoptera physalus*. It was guided to deep waters and released. **Conclusions.** This note is the first confirmed record of this species in the Mexican Caribbean increasing the list of confirmed aquatic mammal species distributed in this region.

Keywords: common rorqual, Isla Contoy, new record, Quintana Roo, stranded, Western Caribbean

RESUMEN

Antecedentes. Hasta 2015 la biodiversidad de los mamíferos acuáticos en el Caribe mexicano era desconocida, pero en ese año se confirmó la distribución de 18 especies en esta región, ninguna de ellas una especie de Rorqual. **Objetivos.** El objetivo de este trabajo es registrar el primer avistamiento de una ballena Balaenopteridae en el Caribe mexicano. **Métodos.** La CONANP y la RVMMEQR atendieron un evento de varamiento en el Parque Nacional Isla Contoy. **Resultados.** El 2 de agosto de 2018, se encontró varada una ballena de aleta o rorqual común *Balaenoptera physalus* de ~18m (en longitud), ésta fue guiada a aguas profundas y liberada. **Conclusiones.** Esta nota es el primer registro confirmado de esta especie en el Caribe mexicano y aumenta la lista de especies de mamíferos acuáticos distribuidas en esta región.

Palabras clave: Caribe oriental, Isla Contoy, nuevo registro, Quintana Roo, rorqual común, varamiento

The fin whale *Balaenoptera physalus* (Linnaeus, 1758), is the second-largest whale; the average length of fin whales in the Northern Hemisphere is 22 m for males and 24 m for females (Gamble, 1985). The body is elongated and slender, brownish-gray in the dorsal portion and paler in the ventral area (Notarbartolo-Di-Sciara *et al.*, 2003). This whale has a characteristic asymmetric color in the anterior-ventral portion, being white/cream in the right lower jaw, whereas the left portion is black/dark. The dorsal fin is tall and bigger in size compared with other Balaenopterids; it is located at the third body portion, with white cream a V grey-light shape pattern (called chevron) which extends over the dorsal portion and flanks behind the head (Notarbartolo-Di-Sciara *et al.*, 2003; Perrin, 2018). The species has a cosmopolitan distribution occurring principally in temperate and cold waters (Rice, 1998). Currently, three subspecies are recognized. The species also has a V grey-light two in the Southern Hemisphere, and *B. p. physalus* in the Northern Hemisphere (Committee-on-Taxonomy, 2018). Similar to all other large whales, the fin whale was profusely hunted during the

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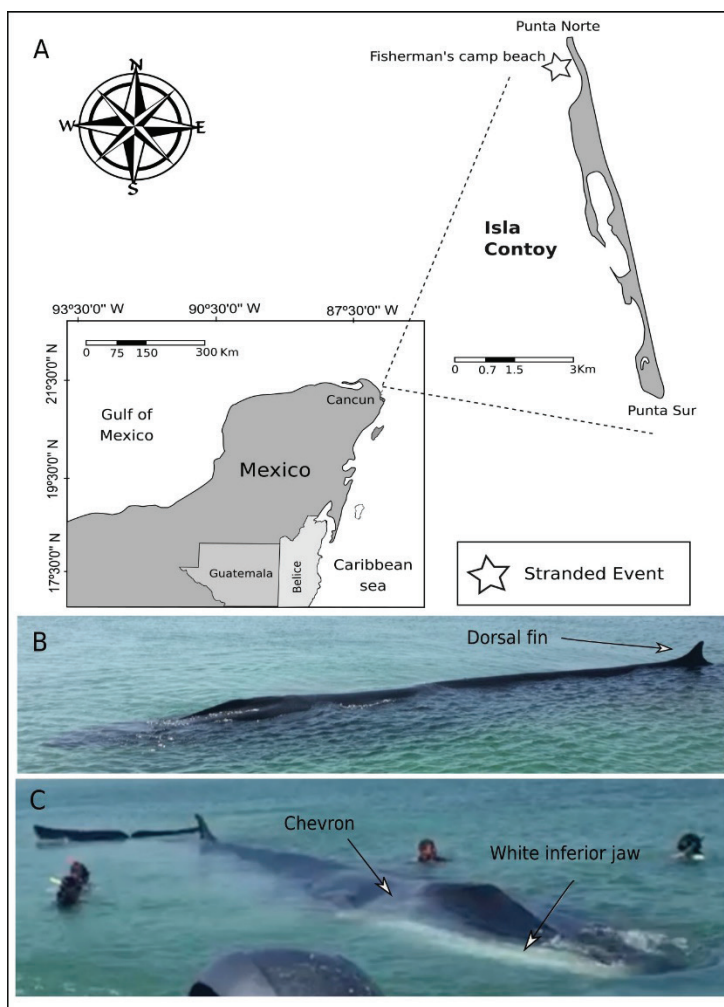
20th century, resulting in a drastic reduction of their populations. This species is considered internationally as an Endangered species (Reilly *et al.*, 2013), and is subject to special protection in Mexico (SEMARNAT, 2010). Additionally, the International Whaling Commission (IWC) issued a moratorium on commercial hunting of this species, and was listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (UNEP-WCMC, 2018).

The Mexican Caribbean is recognized as one of the principal Mexican marine eco-regions (Lara-Lara *et al.*, 2008; Niño-Torres *et al.*, 2015). Currently, for the Mexican Caribbean, there are reported 18 aquatic mammal species (Niño-Torres *et al.*, 2015), none of them, a Rorcual species (*Balaenopteridae* Gray, 1864).

As part of the activities of the Comisión Nacional de Áreas Naturales Protegidas (CONANP) and the Marine Mammal Stranding Network of Quintana Roo (RVMMEQR), a stranded alive whale was aided on August 2, 2018, near to the fishermen's camp beach (21° 31' 31.03" N; 86° 48' 11.26" W, fig. 1a) at the northern section of the Isla Contoy National

Park. The stranded animal was an adult fin whale, *B. physalus*, of ~ 18 m in length. Species identification was based on the form of the dorsal fin, the chevron, and the right lower jaw coloration ("white-lip") characteristic of this species (Notarbartolo-Di-Sciara *et al.*, 2003; Perrin, 2018) (fig. 1b-c). After some maneuvers, the fin whale was towed to deep waters and released. Sex was not determined.

Stranding records are of outstanding importance, especially when they concern species that are difficult to observe in the wild. The stranded event reported here represents the first record of a fin whale *B. physalus* in the Mexican Caribbean, and the second for the Western Caribbean Sea (Ramos *et al.*, 2016). The first case was reported in Belize on the April 28, 1986, in which a single adult female stranded alive near to Placencia (Sanders *et al.*, 1997; Ramos *et al.*, 2016). Other fin whales records in the Caribbean Sea have been reported in Venezuela at Margarita Island and Paraguana Peninsula on August 1953 and February-May 1959 (Agudo, 1995; Romero *et al.*, 2001), and Colombia (Muñoz-Hincapié *et al.*, 1998). Live groups of this species have been documented in Puerto Rico (Mignucci-Giannoni, 1998).



Figures 1a-c. a) Location of region in the Mexican Caribbean, where the stranded whale *Balaenoptera physalus* (Linnaeus, 1758) was found, at the fishermen's camp beach; b) Detail of the dorsal fin; c) Chevron and right lower jaw coloration in the stranded whale (Photography by: Caribbean Connection Cia.).

We should highlight that this stranding event occurred during the summer season (August), which is unexpected. Gamble (1985) described that the breeding season for western North Atlantic fin whales takes place in Florida, Gulf of Mexico, and the Caribbean Sea waters during the winter, whereas they spend spring and summer at higher latitudes (north) at their feeding grounds. An interesting hypothesis is that this individual could belong to the Southern population. Unfortunately, it wasn't possible to take DNA samples to determine its place of origin.

This stranding event represents an important record of the marine mammal species richness in the Mexican Caribbean, increasing the number of confirmed species from 18 (Niño-Torres *et al.*, 2015) to 19. Characterizing the species occurrence, abundance, and distribution is relevant to create and implement adequate management and conservation plans (Ramos *et al.*, 2016), that help to preserve the natural resources and biodiversity. In the Mexican Caribbean ~98% of the marine ecosystems are protected under different categories of "natural protected areas."

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