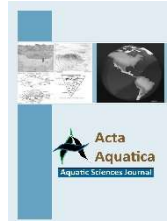




# Acta Aquatica

## Aquatic Sciences Journal



### First record of spinetail devil ray, *Mobula japonica* (Müller & Henle 1841) from the Gulf of Antalya

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#### Abstract

On 11 October 2019, one specimen of spinetail devilray *Mobula japonica* (Müller and Henle, 1841) was caught inadvertently by a commercial fisherman at a depth of approximately 25 m off the Gulf of Antalya. One specimen was examined in detail. *M. japonica* was recorded for the first time in the Gulf of Antalya.

**Keyword:** by-catch; Gulf of Antalya; *Mobula japonica*; spinetail devil ray

#### 1. Introduction

The family Mobulidae comprises of two genera: *Manta* Bancroft, 1829 and *Mobula* Rafinesque, 1810, separated by the location of the mouth; at end of snout tip in *Manta*, and ventral on the head and posterior of the snout tip in *Mobula* (Notarbartolo-di-Sciara 1987). Nine recognized species belonging to the genus *Mobula* is occur worldwide in tropical, subtropical and temperate waters worldwide (Couturier *et al.*, 2012). Devil rays or mantas are very large, pelagic species and their body is lozenge-shaped with pointed tip (Golani *et al.* 2006; Baştusta and Özbek, 2017).

*M. mobular* is very similar to *M. japonica*, which can be found circumtropically seas (Baştusta and Özbek, 2017). These species have very low reproductive capacity and *M. mobular* population designated as Endangered (EN) by the International Union for Conservation of Nature (IUCN) (Marshal *et al.* 2020; Downloaded on 01 February 2021).

Spnetail Devilray (*Mobula japonica*) is widely distributed in tropical to warm temperature water of the Atlantic, Pacific and Indian Oceans. This fish was first reported from the Tunisian coast by Capape *et al.* (2015). In the same area was second record made by Novira *et al.* (2015). Later, this fish was reported from Iskenderun Bay shore of Turkey by Sakali *et al.* (2016).

*M. mobular* was recorded from the Turkish coast by Akyüz and Artüz (1957); from the Aegean Sea by Akyol *et al.* (2005); from Iskenderun Bay by Yaglioglu *et al.* (2013) and Sakalli (2017), from the Gulf of Antalya Baştusta and Özbek, (2017). This

paper presents the first record of the Spinetail Devil Ray (*Mobula japonica*) caught from the Gulf of Antalya.

#### 2. Materials and Methods

On 11 October 2019, one specimen of spinetail devilray *M. japonica* was caught inadvertently by a commercial fisherman at a depth of approximately 25 m off the Gulf of Antalya (Fig. 1). One sample (female) was transferred to Akdeniz University Fisheries Faculty laboratory. Specimen was measured, photographed and identified. The identification of species was made diagnostic characteristics described by Notarbartolo di Sciara (1987; 2016); Bonfil and Mohamed (2004); Capapé *et al.* 2015. The lengths (disc width, disc length, total length, etc.) were measured to the nearest 0.1 cm and the weight to the nearest kilogram (kg).

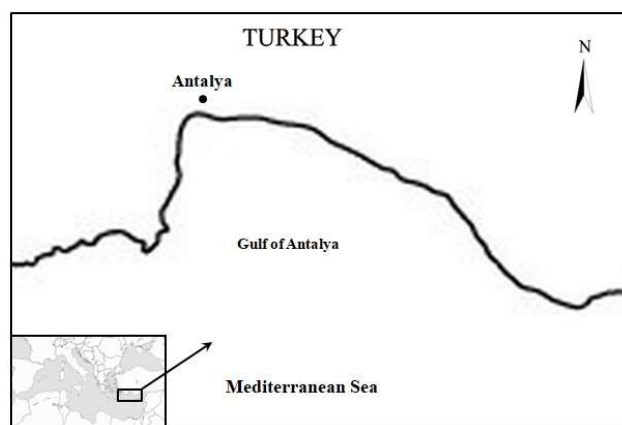


Figure 1. Gulf of Antalya where *M. japonica* was caught in the Mediterranean

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### 3. Results and Discussion

Morphometric measurements of one female specimen was disc width 135 cm, disc length 61 cm, total length 215 cm, tail length 154 cm, horn 13,5 cm, mouth width 15,5 cm, first gill slit width 6,5 cm, eye diameter 2 cm and weight 13 950g (Fig. 2A).

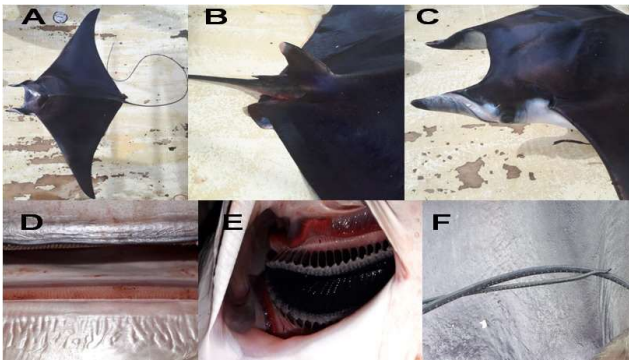


Figure 2. Distinctive features of the *Mobula japonica*.

Distinctive features of *Mobula japonica* species whose morphometric features are given above are as follows; white spot above dorsal fin (Fig. 2B), Slit-like spiracles above margin of pectoral fin (IOTC and SPC, 2012) (Fig. 2C), tooth cavities not arranged in rows (Capapé et al. 2015) (Fig. 2D), distinctive white colouration to the raker filaments tips (CITES 2013) (Fig. 2E), very long tail equal to or longer than disc width with white tiny nodules (FAO 2014) (Fig. 2F). The meristic and morphological characters of *Mobula japonica*, which we detected, showed similarities with the features specified by other researchers.

Antalya Bay is located in the eastern Mediterranean ecosystem. For this reason, the eastern Mediterranean is one of the regions where lesepsian migrations are most common. It is a species of *Mobula japonica* that is distributed in the temperate Pacific and Indian and Atlantic Oceans. This species was first caught in the the Gulf of Iskenderun coasts of Turkey. Then, second time captured of this species in the Gulf of Antalya suggests lesepsian migration.

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