

SHORT COMMUNICATION

First record of *Aetomylaeus bovinus* (Geoffroy St. Hilaire, 1817) (Elasmobranchii: Myliobatidae), from the Sea of Marmara

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Abstract

A single female individual of *Aetomylaeus bovinus* (Geoffroy St. Hilaire, 1817) was observed and photographed off Soğanlıdere (Çanakkale Strait) on 15 May 2019, which represents a first record for the Sea of Marmara ichthyofauna.

Keywords: *Aetomylaeus bovinus*, Myliobatidae, Sea of Marmara

Received: 24.06.2019, **Accepted:** 14.07.2019

Aetomylaeus bovinus (Geoffroy St. Hilaire, 1817) is a semipelagic species commonly known as the bull ray or duckbill ray, occurring in tropical and warm temperate coastal waters (including estuaries and lagoons) of up to 150 m depth, with a worldwide distribution including the eastern Atlantic, Mediterranean Sea, south Africa, southwest Indian Ocean and Red Sea (Weigmann 2016; Froese and Pauly 2019). The species generally does not exceed 100 cm in disc width (DW) and 20 kg in weight, although extreme values were noted for two gravid females from the Gulf of Trieste (#1: 222 cm DW and 88 kg; #2: 191 cm DW and 116 kg) (Lipej *et al.* 2009). Largest individuals sighted so far in Turkey had 129 cm DW and 33.6 kg weight (Başusta and Aslan 2018). Diet of *A. bovinus* is dominated by fish and molluscs, while crustaceans and annelids are relatively less consumed (Capapé 1977). The bull ray has an annual reproductive periodicity with a litter size ranging from 2 to 6; size at maturity was estimated for males and females as 80 cm DW and 90-100 cm DW, respectively (Bradai *et al.* 2012).

In this case report, the first observation of *A. bovinus* is given from the Çanakkale Strait, which is a part of the Sea of Marmara ecosystem in terms of biodiversity. Preceded by the common eagle ray, *Myliobatis aquila* (Linnaeus,

1758), *A. bovinus* is the second myliobatid encountered in the region. On 15 May 2019, a single female individual of *A. bovinus* (Figure 1) was observed and photographed by a skin diver at a depth of 3 m, over Mediterranean mussel beds located off Soğanlıdere of Çanakkale (Figure 2).

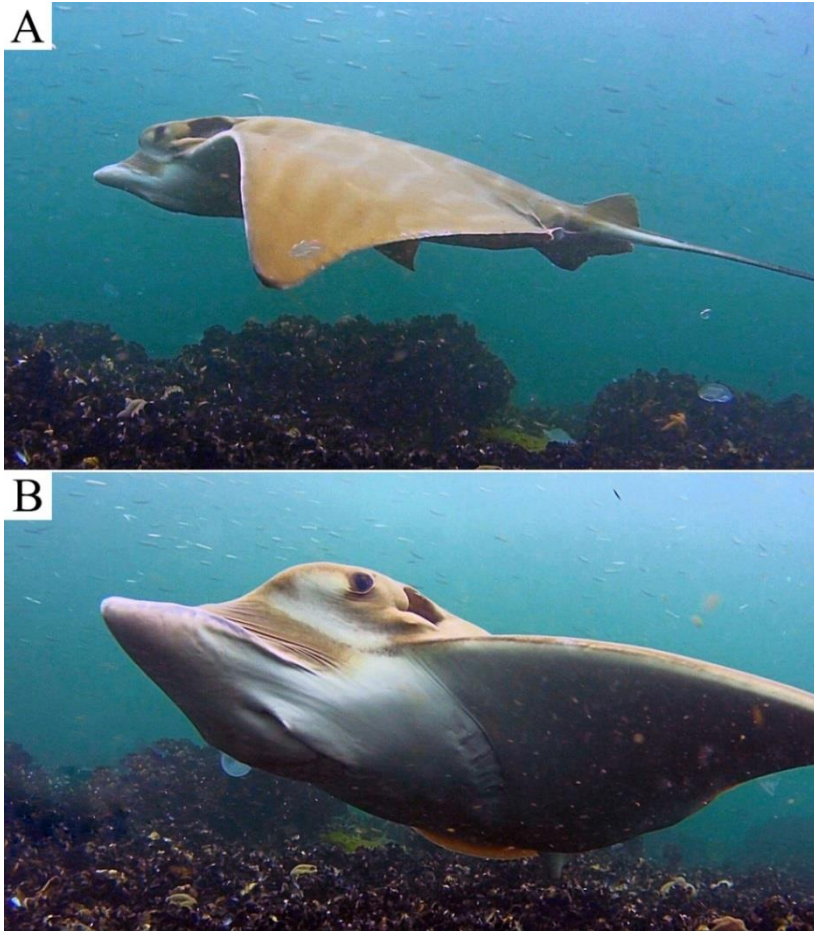


Figure 1. *Aetomylaeus bovinus* individual observed over Mediterranean mussel beds at the Çanakkale Strait, Sea of Marmara. A - lateral view; B - front view (Photographs courtesy of Müjdat Turan)

The underwater photographs were sufficient enough for a precise species identification, in which the following diagnostic characteristics given by McEachran and Capapé (1984) can easily be recognized: the relatively long head narrowing towards the snout (resembling the shape of duckbill), distinctly falcate pectoral fins, dorsal fin originating before level of pelvic fin tips (Figure

1A), and front margin interrupted under eye and not joining with subrostral lobe (Figure 1B). Moreover, the brown dorsum with pale blue-grey transverse streaks is also evident, which is a unique coloration of the species (McEachran and Capapé 1984). Although a special effort was not made by the skin diver for the length estimation of *A. bovinus* from Sea of Marmara, he indicates a large sized fish with of at least ca. 120 cm DW, probably showing that the individual is an adult.



Figure 2. Map showing the observation locality of *Aetomylaeus bovinus* individual at Çanakkale Strait

A continuous distribution over the continental shelf of the Mediterranean basin (excluding the Sea of Marmara and Black Sea) was previously presented for *A. bovinus* (McEachran and Capapé 1984; Fischer *et al.* 1987). Nevertheless, recent research carried out during the last few decades possibly indicate sparsely distributed and/or locally abundant isolated populations (Mejri *et al.* 2004; Dulčić *et al.* 2008; Zogaris and Dussling 2010). In Turkey, *A. bovinus* sightings are mostly concentrated in Iskenderun Bay (northeastern Levant), followed by Sığacık and İzmir Bays (central Aegean Sea) (Akyol *et al.* 2017; Başusta and Aslan 2018). Reports are also available from the northern Aegean shores, from Kavala to Saros Bay (Zogaris and Dussling 2010; Cengiz *et al.* 2011), indicating the presence of a localized population. Penetration of *A. bovinus* to the Çanakkale Strait is therefore not unusual, especially when the existing two way stratified water flow character is considered. Moreover, it is a known fact that zoobenthos rich ecosystems attract the bull rays, since mussels and other zoobenthic organisms are among the important food items of the species (Capapé 1977; Zogaris and Dussling 2010).

Once classified as DD (data deficient) by the IUCN regional Red List (Abdul Malak *et al.* 2011), the conservation status of *A. bovinus* has recently been upgraded to CR (critically endangered, A2c) due to the continuing decline of mature individuals (>80% within 10 years/3 generations) within severely fragmented Mediterranean populations (Walls and Buscher 2016). The recent opposing comment for this important upgrade by Akyol *et al.* (2017) should

simply be neglected, which is most probably due to the misinterpretation of Red List assessment strategy.

It is quite clear that *in situ* observation techniques play a vital role in determining the distribution and population trends of the critically endangered *A. bovinus*, so cooperation between fish taxonomists and divers/underwater photographers will efficiently serve in detection of new individuals at previously unknown localities. Although fishery of all species belonging to family Myliobatidae has recently been banned in Turkey by the Ministry of Agriculture and Forestry (Official Gazette #30396 dated 19 April 2018), coastal fishermen should in advance be informed on the existing conservation act and live release of possible captured individuals should be supported.

Acknowledgements

The author wishes to thank to Mr. Müjdat Turan, for sharing his important bull ray observation and giving permission for use of the underwater photographs. Mr. Bülent Şelli (İmbat Underwater Imaging Center) is also acknowledged for his kind support.

***Aetomylaeus bovinus* (Geoffroy St. Hilaire, 1817) (Elasmobranchii: Myliobatidae) türünün Marmara Denizi'nden ilk kaydı**

Öz

Aetomylaeus bovinus (Geoffroy St. Hilaire, 1817) türüne ait dışı bir birey, 15 Mayıs 2019 tarihinde Çanakkale Boğazının Soğanlıdere kıyılarında gözlemlenmiş ve fotoğraflanmıştır. Mevcut bulgu Marmara Denizi balık faunası için ilk kayıt niteliğindedir.

Anahtar kelimeler: *Aetomylaeus bovinus*, Myliobatidae, Marmara Denizi

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