MEDITERRANEAN OCCURRENCE OF *MOBULA JAPANICA* (CHONDRICHTHYES: MOBULIDAE) WITH FIRST RECORD FROM THE ALGERIAN COAST

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Abstract
The authors report the occurence of the spinetail devilray *Mobula japanica* (Müller and Henle, 1841) off the Algerian coast. The captures, considered as Herculean immigrants from the eastern tropical Atlantic, confirm the occurrence of the species in the mentioned area. The article discusses and comments on the establishment of a sustainable population in the area and further in the Southern Mediterranean.

Keywords: Alien species, Elasmobranchii, Migration, Algerian Basin

Introduction

Studies on elasmobranch species from the Algerian coast were conducted since 1996 to date and allow reporting the occurrence of about 50 species in the area ([1]). The giant devil ray *Mobula mobular* (Bonnaterre, 1788) was the single species belonging to the family observed in the area ([2]). Recently, [3] and [4] recorded a close relative species *M. japanica* (Müller and Henle, 1841) off the northern Tunisian coast, close to the Algerian border. [3] and [4] noted that they were the first records of the species in the Mediterranean and suggested that it was an Herculean migrant (sensu [5]), originated from the eastern tropical Atlantic which entered the sea through the Strait of Gibraltar. Such discoveries induced us to consider the possible occurrence of the species in the Algerian waters. Therefore, investigations were recently conducted in the region to support such hypothesis.

Material and Methods

Observations were mainly carried out in the fishmarket of the city of Algiers where are landed fish species caught throughout the Algerian coast. Concomitantly, documents such as photographs and reports were also consulted to point out that such hypothesis could not be totally ruled out. Consequently, we were informed by experencied local fishermen that a specimen of devil ray (s.l.) was captured off the Algiers coast and landed at the same fishmarket.

Results and Discussion

A specimen caught off Algiers in 2014, was photographed (fig. 1), but we were not able to measure it due to the fact that it was dressed and cut out into pieces by retailers and rapidly sold.

Another specimen captured in the eastern part of the Algerian coast, cut in two pieces, was observed in the fish market of Algiers (fig. 2).

Fig. 1. Female of *Mobula japanica* captured from off Algiers in 2014

However, both figure 1 and figure 2 clearly show the white tip on dorsal fin, and in figure 1, dorsal fin is in a little in advance of the beginning of pelvic fins, which are considered as the main morphological characteristics allowing to distinguish *M. japanica* from *M. mobular*. In this latter species, there is no white tip on dorsal fin, and the dorsal fin is behind the posterior margin of pectoral fins.

Fig. 2. Male of *Mobula japanica* captured in the eastern part of the Algerian basin in 2006

Therefore, this record is the third known to date for the Mediterranean Sea, and the first for the Algerian coast, even if it appears evident that the species reached the Algerian coast prior to reach the Tunisian coast. This record is a new step wich allows confirming the successful establishment of a population of *M. japanica* in the southwestern Mediterranean Sea. Unfortunately, as other elasmobranch species, *M. japanica* is highly vulnerable due to its *k*-selected characteristics, and therefore it is considered at present as a threatened species ([6]). The recent increasing of catches in both Algerian and Tunisian waters needs urgent local measures of conservation and a fishing management to avoid a possible extinction of the species in the area.

References

1 - Hemida F., 2005. Les Sélaciens de la côte algérienne : biosystématique des requins et des raies ; écologie, reproduction et exploitation de quelque populations capturées. Thèse de Doctorat d'état, USTHB : 233p.

2 - Hemida F., Mehezem S. and C. Capapé, 2002. Captures of the giant devil ray, *Mobula mobular* Bonnaterre, 1788 (Chondrichthyes: Mobulidae) off the Algerian coast (southern Mediterranean). Acta Adriatica, 43 (2): 69-76.

3 - Capapé C., Rafrafi-Nouira S., El Kamel-Moutalibi O., Boumaïza M. and Reynaud C., 2015. First mediterranean records of spinetail devil ray, *Mobula japonica* (Elasmobranchii: Rajiformes: Mobulidae)

4 - Rafrafi-Nouira S., El Kamel-Moutalibi O., Ben Amor M.M. and Capapé C., 2015. Additional records of spinetail devil ray *Mobula japanica* (Chondrichthyes: Mobulidae) from the Tunisian coast (Central Mediterranean). Annales · Ser. hist. nat. · 25 · 2015 ·2: 103-108

5 - Quignard, J.-P. and J.A. Tomasini, 2000. Mediterranean fish biodiversity. Biol. Mar. Mediterr. 7(3):1-66.

6 - White W.T., Clark T.B., Smith W.D. and J.J. Bizzarro, 2006. *Mobula japanica*. The IUCN Red List of Threatened Species 2006: e.T41833A10576180.
http://dx.doi.org/10.2305/IUCN.UK.2006.RTLS.T411833A10576180.
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