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THE OCCURRENCE OF WHITE GROUPER *EPINEPHELUS AENEUS* (EPINEPHELIDAE) FROM THE ALGERIAN COAST (SOUTHERN MEDITERRANEAN SEA)

SUMMARY

The authors report the capture of a specimen of white grouper, *Epinephelus aeneus* (E. Geoffroy Saint-Hilaire, 1817) from the Algerian coast where the occurrence of the species remained questionable. The capture of the present specimen which measured 830 mm in total length and weighed over 7 kilogram, constitute the first substantiated record of the species from the Algerian coast; which could be included in the local ichthyofauna. However, other captures are needed to know if a viable population is established in the Algerian marine waters and to state about its real status in this area.

INTRODUCTION

White grouper, *Epinephelus aeneus* (E. Geoffroy Saint-Hilaire, 1817) has been reported in the eastern Atlantic from the British Isles to the Strait of Gibraltar (Quéro *et al.*, 2003). Southward, the species occurs from the coast of Morocco (Lloris and Rucabado, 1998) to Angola (Tortonese, 1986; Heemstra and Randall, 1993). It is targeted by craft fishery from the coast of Senegal where the species locally displays a high economical value because it is used for human consumption and also for exportation (Badji *et al.*, 2019).

Epinephelus aeneus is known throughout the southern Mediterranean Sea, including the coast of Sicily (Tortonese, 1975) and in the eastern basin (Tortonese, 1986). Probably as a result of global warming of the Mediterrane-

an Sea (Ben Raïs Lasram and Mouillot, 2009) the species has been recorded in the northern Adriatic (Dulcic *et al*., 2008) and in the waters around the north of Corsica (Riutort, 2012).

Dieuzeide *et al*. (1954) noted that they have never captured a specimen of *E. aeneus* in the Algerian marine waters and the occurrence of the species in the areareains doubtful. Conversely, Derbal and Kara (2001) and Refes *et al*. (2010) listed *E. aeneus* among the local ichthyofauna, although no specimen has been available to date for confirmation. Recent observations regularly carried out at the stalls of fishmarkets located along the Algerian coast allowed us to find a specimen of *E. aeneus* described in the present paper.

MATERIAL AND METHODS

The specimen of *Epinephelus aeneus* was observed at the main fish market of Algiers, in which are landed fishes caught from different areas of the entire Algerian coast, between the Moroccan and the Tunisian borders. The sampling period extended from 2010 to 2020 and only one specimen has been recorded. The specimen was captured on 18 September 2018, by demersal gill-net at a depth of 50 m, on sandy-muddy bottoms, off Annaba, in the eastern region, by 35°42''35» N and1°22'17» W (Fig. 1). The specimen was photographed and measured in total length (TL), standard length (SL) and the total body weight (TBW) was estimated by the fish trader. It was difficult to obtain in situ morphometric measurements because the specimen was quickly sliced and sold for local consumption. However, some measurements were obtained through its photography (see Fig. 1).

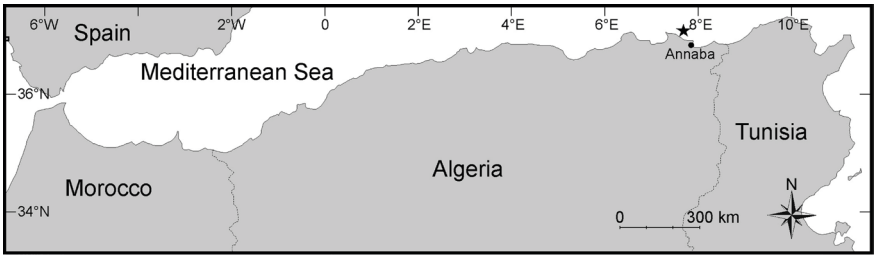

Fig. 1 - Map the Algerian coast indicating the capture site of *Epinephelus aeneus*, off Annaba (black star).

RESULTS AND DISCUSSION

The present specimen of *Epinephelus aeneus* (Fig. 2) measured 830 mm TL, 849 SL and its TBW was over 7 kilogram. It was identified *via* the combination

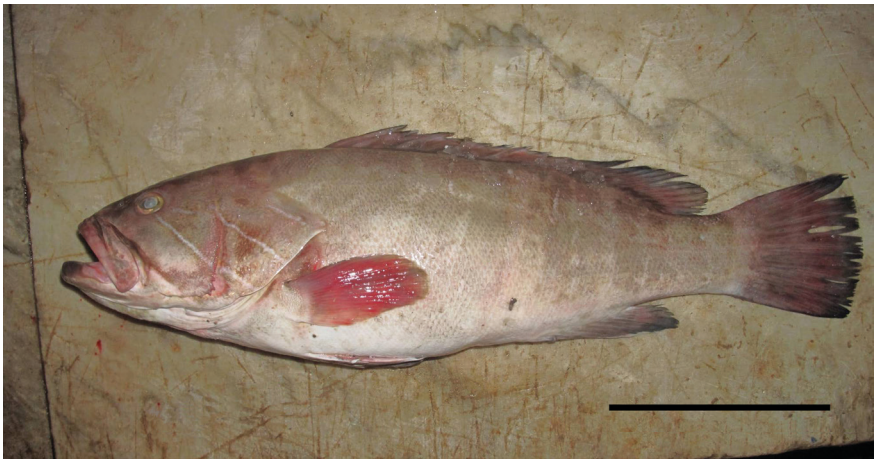

Fig. 2 - *Epinephelus aeneus* captured from the Algerian coast, scale bar = 200 mm.

of main morphological characters: body elongate, its depth distinctly less than head length which is contained 2.9 times in SL; pre-dorsal length 2.6 times and pre-pectoral length 2.8 times in SL, respectively, interorbital area convex; preopercle angular with six spines at the angle; dorsal fin with XI spines and 14 rays; anal fin with 3 spines and 8 rays; 18 pectoral fin rays; pelvic fin origin below base of pectoral fins; caudal fin rounded; colour greenish-grey, some distinct darker, double oblique bands and blackish spots on body, three prominent oblique whitish stripes on the side of the head.

These patterns are fully consistent with the previous descriptions of the species such as Tortonese (1975, 1986) and Heemstra and Randall (1993). This occurrence of *E. aeneus* constitutes at present the first confirmed record of the species in the Algerian fauna and it could be included in the local ichthyofauna. Although several species of grouper are captured throughout the Algerian coast, *E. aeneus* appears to be the less captured according to information provided by local fishermen. Probably due to the scarcity of captures, nothing is dealt about some traits of the reproductive biology and food and feeding habits of the species from the Algerian coast. Conversely, from the close Tunisian marine waters, Bouaïn (1980, 1986) and Bouaïn and Siau (1983) studied age, growth, and reproduction of the local population of *E. aeneus* and reported that the largest specimen was 1150 mm TL and its TWB reached 25 kg and was estimated to be 17 years old.

Longhurst (1960) noted that the specimens from the western African coast feed on fishes, crustaceans and cephalopods. More recently, Badji *et al.* (2019) confirmed these observations in *E. aeneus* captured off the Senegalese coast, adding that it is a carnivorous species rather ichthyophagous which feeds according the seasons clupeid or sparid species.

It exists in the Algerian marine waters, at least four species belonging to te genus *Epinephelus* Bloch, 1793, displaying a similar morphology and generally different to distinguish between them by fishermen. Such pattern could explain why the species was not clearly identified in the area. On the other hand, all grouper species are greatly apreciated for human consumption and display a high economical interest. They are immediately sold by fishmongers despite the fact that they are very expansive and probably escape to the attention of scientific researchers. In addition, a single capture is not sufficient to state about the establishment of a viable population is in the area. However due to the fact that *E. aeneus* is caught in relative abundance throughout the entire southern Mediterranean, and particularly off the Tunisian and the Moroccan coasts, such vicinity suggests that this grouper also occurs in the Algerian marine waters, where its real status remains still questionable.

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