

**THE FIRST RECORD OF A MANGROVE RED SNAPPER, *LUTJANUS ARGENTIMACULATUS*
(ACTINOPTERYGII: PERCIFORMES: LUTJANIDAE), FROM THE AEGEAN SEA
(GULF OF IZMIR, TURKEY)**

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Abstract. A specimen of *Lutjanus argentimaculatus* (Forsskål, 1775) was caught on 4 October 2018 by a commercial gillnet fishery from shallow waters of the Gulf of Izmir, northern Aegean Sea, at a depth of 8 m. The presently reported study constitutes the first record of the mangrove red snapper for the Aegean Sea but also the third record for the Mediterranean Sea.

Keywords: Lessepsian fish, northernmost record, distribution, Mediterranean Sea

INTRODUCTION

The family Lutjanidae (snappers) includes 112 species occurring in all tropical and subtropical seas (Froese and Pauly 2019), and only three of them—*Lutjanus argentimaculatus* (Forsskål, 1775), *Lutjanus fulviflamma* (Forsskål, 1775), and *Lutjanus sebae* (Cuvier, 1816)—originating from the Red Sea, were collected off Lebanon, Malta, and the Saronikos Gulf of Greece in the Mediterranean, respectively (Golani et al. 2006, Vella et al. 2015). Zenetos et al. (2016), however, believed that the latter two species (i.e., *L. fulviflamma* and *L. sebae*) might have been potentially introduced into the Mediterranean via aquarium trade or shipping. However, a large specimen of *L. sebae* (11.2 kg) has been recorded for the second time off NW Sicily from the Tyrrhenian Sea in December 2016 (Gerovasileiou et al. 2017).

The mangrove red snapper, *Lutjanus argentimaculatus*, is a benthic fish species preferring rocky substrates down to the depth of 80 m, although, young fish occur in shallow waters and often enter estuaries (Golani et al. 2006). Adults are frequently found in schools around coral reefs. They feed predominantly on fishes and crustaceans, reaching 150 cm of total length (TL), but usually not exceeding 80 cm. The maximum recorded weight was 8.7 kg (Froese and Pauly 2019). *Lutjanus argentimaculatus* is an important commercial species in the Indo-Pacific region, but can never be found in large numbers (Froese and Pauly 2019). In Pakistan, Singapore, Malaysia, Thailand, and the Philippines this snapper is commercially cultured (Russell et al. 2016).

Mangrove red snapper is distributed throughout the Indo-Pacific—east Africa (including Madagascar,

Mauritius, Reunion, and the central islands of the Federated States of Micronesia), north to the Red Sea and the Persian Gulf, east to Samoa and the Line Islands, north to the Ryukyu Islands, south to Australia. It has dispersed into the eastern Mediterranean via the Suez Canal but it is not well established there (Russell et al. 2016, Froese and Pauly 2019).

MATERIAL AND METHODS

On 4 October 2018, a specimen of *Lutjanus argentimaculatus*, measuring 305 mm TL (Fig. 1) was captured by a commercial gillnet of 72 mm mesh size from the shallow waters off Urla, Gulf of Izmir, northern Aegean Sea (coordinates: 38°22'N, 026°47'E) at a depth of 8 m (Fig. 2). The specimen was fixed with 5% formaldehyde solution and deposited in the ichthyological collection of the Fisheries Faculty, Ege University, Izmir under the catalogue number ESFM-PIS/2018-07.

RESULTS AND DISCUSSION

Brief description of the specimen. Body moderately compressed and deep, several large pointed teeth, caudal fin nearly truncate, and a notch in the lower margin of the operculum. Colour: back and sides greenish-brown to reddish; belly silvery or white. Description and the absolute and relative (%TL) values of the body measurements (Table 1), recorded in this new specimen of *L. argentimaculatus* are in accordance with Golani et al. (2006) and Russell et al. (2016).

In the Mediterranean Sea, *L. argentimaculatus* has been recorded for the first time from Lebanon by Mouneimné (1979), and four decades later (in 2014), the second specimen

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Fig. 1. Mangrove red snapper, *Lutjanus argentimaculatus* (ref. ESFM-PIS/2018-07), captured from the Gulf of Izmir, Aegean Sea



Fig. 2. Range extension of *Lutjanus argentimaculatus* in the coastal areas of the Mediterranean Sea (numbers and arrow indicate consecutive reports and the most recent record, respectively)

was collected in Tripoli, Lebanon at a depth of 45 m (Dailianis et al. 2016). Both records suggest that the fish range has not yet expanded beyond the borders of Lebanon. Thus, this ichthyological note presents not only the northernmost record of the *L. argentimaculatus* in a certain area of the Gulf of Izmir, northern Aegean Sea but it also constitutes the third record of this snapper in the Mediterranean Sea.

In conclusion, the occurrence of *L. argentimaculatus* is very rare due to only three specimens recorded in the last four decades in the Mediterranean Sea. This report is of particular significance as the confirmed finding of

Table 1

Morphometric measurements in mm and as percentage of total length (%TL) and counts recorded in *Lutjanus argentimaculatus*, captured from the Gulf of Izmir, Aegean Sea

Measurements	ESFM-PIS/2018-07	
	[mm]	[%TL]
Total length	305	100.0
Standard length	260	85.2
Predorsal fin length	95	31.1
Prepectoral fin length	85	27.9
Preanal fin length	177	58.0
Pectoral fin length	58	19.0
Head length	90	29.5
Eye diameter	16	5.2
Preorbital length	28	9.2
Interorbital length	16	5.2
	Counts	
Dorsal fin rays	X + 14	
Anal fin rays	III + 8	
Pectoral fin rays	16	
Ventral fin rays	I + 5	
Total body weight [g]	473	

the mangrove red snapper in a certain area. Globally, the finding locality is the northernmost and considering that the Gulf of Izmir is too far from the first finding site (i.e., Lebanon) and the species is not known from more distant Turkish and Syrian coasts. Therefore, the shipping can be assumed potential pathway, and as a matter of fact that a large international harbour is available in the Gulf of Izmir.

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