

## Juvenile records on the tripletail, *Lobotes surinamensis* (Bloch, 1790) from Iskenderun Bay (Northeastern Mediterranean Sea, Turkey)

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**Abstract:** A single juvenile specimen of tripletail, *Lobotes surinamensis* (Bloch, 1790) was captured by a trammel net at a depth of 8 m on 27 May 2016 from the coast of Arsuz in Iskenderun Bay (Eastern Mediterranean, Turkey). The specimen was 137 mm in standard length (SL). Although this fish is known to be a native species for the Mediterranean waters, its occurrence is rare. Previously, the species was only reported from Mersin and Karatas coast of eastern Mediterranean, Turkey. This report of occurrence of a juvenile individual of *L. surinamensis* from Iskenderun Bay of Turkey is the first juvenile record for the region.

**Keywords:** Tripletail, *Lobotes surinamensis*, Mediterranean Sea, Iskenderun Bay, Turkey.

### Introduction

The genus *Lobotes* is represented by a single species in the Mediterranean Sea. The tripletail *Lobotes surinamensis*, also known as the black perch, or buoy-fish, is the sole member of the family Lobotidae in the region and is rarely found in the eastern basin of Mediterranean. This species is known to inhabit bays, muddy estuaries and river mouths (Carpenter and Robertson, 2015; Ounifi-Ben Amor and Ben Amor, 2016).

Doderlein (1875) has reported that the first occurrence of *L. surinamensis* (Bloch, 1790) in the Mediterranean Sea and a few more reports have been made since the first record of the species in the Mediterranean (Ben Tuvia et al., 1953), Bini (1968), Tortonese (1975), Hemida et al. (2003), Camilleri et al. (2005), Deidun et al. (2010) and Dulcic et al. (2014a, b). *Lobotes surinamensis* was recorded for the first time from the Turkish marine waters in Mersin Bay, the northeastern Mediterranean Sea coast of Turkey (Gucu and Bingel, 1994). Then, this species was also studied between 1994 and 1996 from Karatas coast (Basusta and Erdem, 2000). Furthermore it was reported from Izmir Bay, northern Aegean Sea (Akyol and Kara, 2012), Çanakkale Strait Tuncer and Önal (2016) and South Aegean Sea (Bilge et al., 2017).

Although the occurrence of the species all around is rare the Mediterranean, Tortonese (1975) and Fischer et al. (1987) have reported the presence of it from the Eastern and Central Mediterranean water. Besides, *L. surinamensis* was also report from the western Mediterranean (Riera, 1999).

This study contributed to the data on the presence and rare occurrence of tripletail. A juvenile specimen from Iskenderun Bay is an indication of the presence of this species in the northeastern Mediterranean, Turkey. This study is also important due to the report of the first juvenile individual of the species.

### Materials and Methods

On 27 May 2016, a juvenile specimen of *L. surinamensis* (156 mm in total length (TL)) was captured by a trammel net at a depth of 8 m from Arsuz coast (35°23'355"N, 35°50'192"E) in Iskenderun Bay, the northeastern Mediterranean (Fig. 1). Morphometric measurements were carried out to the nearest 0.1 mm by a caliper and meristic counts were made under the reflected light of a stereomicroscope. The specimen was identified as *L. surinamensis* with the diagnostic characteristics described by Carpenter (2001), Akyol and Kara (2012),

and Froese and Pauly (2017). The single specimen was preserved in 4% formaldehyde solution and deposited at the Museum of the Faculty of Marine Sciences and Technology, Iskenderun Technical University, Iskenderun-Hatay.

## Results

The tripletail is a flat, oval-shaped fish with small eyes and a curved head, which gets deeper as they develop. Dorsal and anal fins face towards the caudal fin, and all together they appears like a single three-lobed fin. Table 1 summarizes previous reports of the *L. surinamensis* in the Mediterranean Sea

The main meristic counts and measurements of juvenile *L. surinamensis*. are given in millimetres. The juvenile specimen of *L. surinamensis* had the following diagnostic characters: Dorsal fin ray XII+16, Pectoral fin ray 16, anal fin ray II+12, pelvic fin rays I+5, caudal fin ray 17. Length measurements were as follows: Total length 156 mm, standard length 137 mm, head length 40.45 mm, eye diameter 5.90 mm, interorbital length 12.72 mm, body depth 62.72 mm, predorsal length 40.45 mm, preanal length, 40.90 mm, prepectoral length, 42.72 mm, prepelvic length 46.96 mm,.

**Color:** The body is uniformly yellow with brown patches of differening size. Also juvenile tripletail has three grey spots at the base of dorsal lobe. The caudal fin of the juvenile is transparent at the tip of the tail.

## Discussion

*Lobotes surinamensis* is widely distributed in tropical and subtropical waters, in the western Atlantic, eastern Pacific and Indian Oceans (Carpenter, 2001). The species, although rare, is also present in the Mediterranean (Froese and Pauly, 2017).

Adults are abundant near wrecked ships, jetties and buoys in waters up to 70 m deep and they can live about 10 years. *L. surinamensis* reaches the max size of 110 cm in TL and feeds on benthic crustaceans and small fish (Sommer et al., 1996). Spawning occurs offshore or near the coast. Youngs prefers surface waters while juveniles of tripletails can be found near floating algae (Breder, 1949).

Massuti and Renones (1994) claimed that this species sometimes occurs in the open sea where they can be associated with floating objects. Estuaries are favored by the juvenile tripletails though they might also be found in



**Figure 1.** The Juvenile specimen of *Lobotes surinamensis* (137 mm SL) captured in Iskenderun Bay, the Northeastern Mediterranean, Turkey.

the open sea. Habitat selection of the juvenile tripletail may be depend on hydrological conditions of the habitat.

Although the tripletail has been reported from the Mediterranean Sea and Aegean Sea previously, this is the first report of a juvenile specimen of species in the Mediterranean coast of Turkey. The occurrence of the juvenile in the region may indicate that the habitat is favorable for spawning and the development of the juvenile. Further studies on monitoring of the species and determination of reproductive cycle of it is important and highly beneficial for conservation of this native species.

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**Table 1.** Previous records of *Lobotes surinamensis* in the Mediterranean Sea in 1968-2017.

References	Year(s)	Location	Country	Depth	Length, TL (mm)
Bini (1968)	1967	Pizzo, Tyrrhenian Sea	Italy	-	-
Economidis and Bouchot (1976)	1969	Athos Peninsula, North Aegean Sea	Greece	-	-
Palom (1991)	1990	El Masnou Harbour, Barcelona	Spain	-	76
Gucu and Bingel (1994)	1983-1984	Mersin coast	Turkey	-	-
Massuti and Renones (1994)	-	Mallorca, Balearic Sea	Spain	-	400
De Pirro et al. (1996)	1996	Monte Argentario (Tyrrhenian Sea)	Italy	-	-
Riera et al. (1999)	1990-1996	off Balearic Islands (Balearic Sea)	Spain	-	563
Basusta and Erdem (2000)	1994-1996	Karatas coast	Turkey	30-40	384
Bradai et al. (2004)	1999	Sfax, Gulf of Gabes	Tunisia	-	162-550
Camilleri et al. (2005)	1998	Maltese water	Malta	surface	373
Hemida et al. (2003)	2002	Annaba, eastern Algeria	Algeria	10-15	450
Minos and Economidis (2007)	2005	Thermaikos Gulf,	Greece	-	450
Zava et al. (2007)	2006	Punta Raisi, Palermo, Sicily	Italy	-	470
Deidun et al. (2010)	2009	Marsamxett Harbour Zongor point Malta	Malta	-	-
Dulcic and Dragicevic (2011)	2010	Bisevo Island, Mid. Adriatic	Croatia	surface	384
Akyol and Kara (2012)	2011	Urla coast, Izmir Bay, Turkey	Turkey	2-4	245-296
Dulcic et al. (2014a)	2011	Mali Ston Bay (south Adriatic Sea)	Croatia	-	390
Dulcic et al. (2014b)	2013	Raya Bay, southern coast of Istra Peninsula	Croatia	surface	342
Akel and Philips (2014)	2009	The Eastern Harbor, Alexandria	Egypt	-	-
Kavadas and Bekas (2014)	2011	Evoikos Gulf (central Aegean Sea)	Greece	5	-
	2014	Maliakos Gulf (central Aegean Sea)	Greece	2	409
Minos and Economidis (2015)	2005-2010	Thermaikos Gulf (north Aegean Sea)	Greece	-	278-490
Gönülal and Güreşen (2014)	2007-2013	Gokceada (north Aegean Sea)	Turkey	-	-
Qunifi Ben-Amor and Ben Amor (2016)	2015	Tunis southern Lagoon	Tunisia	-	250-390
Tuncer and Önal (2016)	2015	Canakkale Strait	Turkey	-	489
Trilango (2016)	2015	Manfredonia, South-western Atlantic	Italy	-	-
Bilge et al. (2017)	2013	Dalaman, Sarigerme, south Aegean Sea, Gokova Bay, south Aegean Sea	Turkey	10 20	244 326
Present study	2016	Arsuz, Iskenderun Bay	Turkey	8	156

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