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ADDITIONAL RECORD OF TRIPLETAIL *LOBOTES SURINAMENSIS* (OSTEICHTHYES: LOBOTIDAE) IN TUNISIAN WATERS (CENTRAL MEDITERRANEAN SEA)

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ABSTRACT

The authors report an additional record of tripletail Lobotes surinamensis off Ras Jebel in northern Tunisia. The specimen was caught with a trammel net at a depth of 6 m, measuring 430 mm in total length and weighing 1206 g. To date, 9 specimens of this species have been recorded in Tunisian waters, with 35 records documented in the entire Mediterranean. The article comments on and discusses the distribution of the species in Tunisian waters.

Key words: Lobotidae, *Lobotes surinamensis*, total length, population, distribution, Tunisian waters, Mediterranean Sea

NUOVO RITROVAMENTO DI LOBOTE, *LOBOTES SURINAMENSIS* (OSTEICHTHYES: LOBOTIDAE), IN ACQUE DELLA TUNISIA (MEDITERRANEO CENTRALE)

SINTESI

Gli autori riportano una nuova segnalazione del lobote, Lobotes surinamensis, al largo di Ras Jebel nella Tunisia settentrionale. L'esemplare, catturato con un tramaglio a una profondità di 6 m, pesava 1206 grammi per una lunghezza di 430 mm. Fino ad oggi, nove esemplari di questa specie sono stati registrati nelle acque tunisine, con 35 ritrovamenti documentati in tutto il Mediterraneo. Nell'articolo viene discussa la distribuzione della specie nelle acque tunisine.

Parole chiave: Lobotidae, *Lobotes surinamensis*, lunghezza totale, popolazione, distribuzione, acque tunisine, mare Mediterraneo

INTRODUCTION

Tripletail *Lobotes surinamensis* (Bloch, 1790) is a benthopelagic species widely distributed in the Pacific, Indian, and Atlantic Oceans (Carpenter & Robertson, 2015). In the eastern Atlantic, it is distributed from southern Portugal to Angola, including the Canary and Cape Verde Islands (Roux, 1986; Carpenter & Robertson, 2015).

In the Mediterranean Sea, *L. surinamensis* occurs as a rather rare and sporadically captured species, with

only 32 reliable records reported from 1875 to 2015, following Bilge *et al.* (2017). Two additional specimens were recently captured, one in the Ligurian Sea (De Carlo *et al.*, 2017) and another one off Agnone Bagni, a seaside station located in the eastern coast of Sicily. This second specimen, weighing 4 kg, was captured on 2 April 2017 (Sortino, *pers. comm.*, 2017). *L. surinamensis* is a sluggish fish that lives alone or in pairs, floating on its side and carried by the water currents; the currents are also one of the main causes of this species' presence in the Mediterranean Sea, where 35 specimens have been reported to date, and its occurrence in the Tunis Southern Lagoon (Ounifi-Ben Amor *et al.*, 2016) is probably a good instance.

In this paper, we present a third recent record reported off the northern Tunisian coast. This specimen is herein described and the capture is discussed and commented in relation with previous records of the species in Tunisian waters.

MATERIAL AND METHODS

The specimen was caught on 10 April 2017 off Ras Jebel (Fig. 1), a city located in northern Tunisia (37°15'12.38" N and 10°07'05.34" E), by a trammel net at a depth of 6 m, on rocky-sandy bottom partially covered by algae, together with labrid and sparid species, and cuttlefish *Sepia officinalis* Linnaeus, 1758. The total length (TL) and other measurements were performed following Hemida *et al.* (2003) and Ounifi-Ben Amor *et al.* (2016). The specimen was fixed in 10% buffered formalin, preserved in 75% ethanol and deposited in the Ichthyological Collection of the Faculté des Sciences de Bizerte (Tunisia), catalogued under number FSB-Lob-sur-01 (Fig. 2).

RESULTS AND DISCUSSION

The specimen was identified as *Lobotes surinamensis* based on a suite of characteristics, such as: body deep, compressed; head small; dorsal and anal fins long, rounded and symmetrical; pectoral fin short, rounded; mouth large; body colour grey to yellow, with dark lines radiating from the eye; posterior margin of anal fin yellow. Additionally, the morphometric measurements and meristic counts summarized in Table 1 are in complete accordance with those previously reported by Roux (1986), Hemida *et al.* (2003) and Ounifi-Ben Amor *et al.*, (2016). In southern Tunisian waters (see Fig. 1), 3 specimens were recorded off Sfax, one off Zarzis (see Fig. 1, Bradai, 2000), and two other specimens off Gabès (Bradai *et al.*, 2004) - six specimens in all. The two specimens found in the Tunis Southern Lagoon (Ounifi-Ben Amor *et al.*, 2016) and the one captured off Ras Jebel (present study) suggest that the species has migrated towards northern areas. The number of *L. surinamensis* captured in Tunisian waters - a total of 9 -

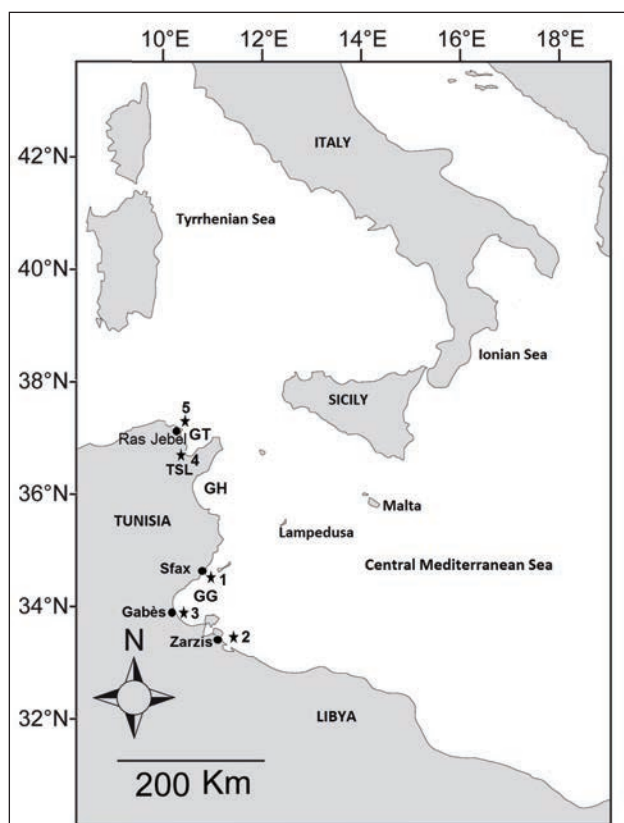


Fig. 1: Map of the central Mediterranean indicating the capture sites of *Lobotes surinamensis* off the Tunisian coast: 1. Off Sfax (Bradai 2000), 2. Off Zarzis (Bradai 2000), 3 Off Gabès (Bradai *et al.*, 2004), 4. Tunis Southern Lagoon (Ounifi-Ben Amor *et al.*, 2016), 5. Off Ras Jebel (the present paper). GG: Gulf of Gabès, GH: Gulf of Hammamet, GT: Gulf of Tunis, TSL: Tunis Southern Lagoon.

Sl. 1: Zemljevid osrednjega Sredozemskega morja z označenimi lokalitetami, kjer so bili ujeti primerki triplavutarice ob tunizijski obali: 1. Sfax (Bradai 2000), 2. Zarzis (Bradai 2000), 3. Gabès (Bradai *et al.*, 2004), 4. Tuniška južna laguna (Ounifi-Ben Amor *et al.*, 2016), 5. Ras Jebel (pričujoče delo). GG: Gabeški zaliv, GH: zaliv Hammamet, GT: Tuniški zaliv, TSL: Tuniška južna laguna.

Tab. 1: The morphometric measurements in mm and as percentages of total length (%TL) and standard length (%SL), and meristics of the specimen of *Lobotes surinamensis* captured off Ras Jebel (Ref. FSB-Lob-sur-01).**Tab. 1: Morfometrične meritve, izražene v mm in kot delež celotne dolžine (%TL) in standardne dolžine (%SL), in meristika primerka vrste *Lobotes surinamensis*, ujetega blizu lokalitete Ras Jebel (Ref. FSB-Lob-sur-01).**

Reference	FSB-Lob-sur-01		
	mm	%SL	%TL
Morphometric measurements			
Total length (TL)	430	117.8	100.0
Standard length (SL)	365	100.0	84.9
Space between tip of snout to caudal fin origin	330	90.4	76.7
Head length	120	32.9	27.9
Interorbital space	35	9.6	8.1
Space between tip of snout to dorsal fin origin	130	35.6	30.2
Space between tip of snout to pelvic fin origin	125	34.2	29.1
Space between tip of snout to anal fin origin	240	65.8	55.8
Space between snout and vent	210	57.5	48.8
Dorsal fin length	205	56.2	47.7
Pectoral fin length	18	4.9	4.2
Pelvic fin length	19	5.2	4.4
Anal fin length	80	21.9	18.6
Caudal fin length	80	21.9	18.6
Caudal fin width	55	15.1	12.8
Meristic counts			
Pelvic fin rays	I+5		
Dorsal fin rays	XII+16		
Anal fin rays	III+12		
Pectoral fin rays	13		
Caudal fin rays	18		
Total body weight (gram)	1206		

appears somewhat more important than those reported from other Mediterranean regions following Bilge *et al.* (2017). The total lengths of the specimens ranged from 162 to 550 mm, their total weights from 91.3 to 3,827 g. The presence of both small and large specimens in the area suggests that a sustainable population is probably established in Tunisian waters.

Similar patterns have been reported throughout the Mediterranean, in total agreement with Bilge *et al.* (2017), who noted that an increase in recent findings of *Lobotes surinamensis* is a consequence of the global warming of this sea (Francour *et al.*, 1994, Ben Raïs Lasram & Mouillot, 2009). Conversely, *L. surinamensis* is also reported in colder regions from the northern



Fig. 2: Specimen of *Lobotes surinamensis* captured off Ras Jebel (Ref. FSB-Lob-sur-01), scale bar = 80 mm.

Sl. 2: Primerek vrste *Lobotes surinamensis*, ujet blizu lokalitete Ras Jebel (Ref. FSB-Lob-sur-01), merilo = 80 mm.

Atlantic (Robins & Ray 1968), the Adriatic Sea (Dulčić *et al.*, 2014) and the Ligurian Sea (De Rosa *et al.*, *in press*).

The captures of *L. surinamensis* appear to be more frequent in the central Mediterranean Sea (Bilge *et al.*, 2017), and the abundance of the species is corroborated by the Tunisian records reported in this paper. This suggests that the central Mediterranean is the core of *L. surinamensis* in this sea, but while such hypothesis

is viable, it would require further investigation to be confirmed.

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NOVI ZAPIS O POJAVLJANJU TRIPLAVUTARICE *LOBOTES SURINAMENSIS*
(OSTEICHTHYES: LOBOTIDAE) V TUNIZIJSKIH VODAH (OSREDNJE
SREDOZEMSKO MORJE)

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POVZETEK

*Avtorji poročajo o novem primeru pojavljanja triplavutarice *Lobotes surinamensis* v vodah blizu lokalitete Ras Jebel v severni Tuniziji. Primerek, ki je bil ujet v stoječo mrežo na globini 6 m, je meril 430 mm v dolžino in tehtal 1206 g. Do danes je znanih 9 dokumentiranih primerov pojavljanja te vrste v tunizijskih vodah in 35 v celotnem Sredozemskem morju. Avtorji nadalje razpravljajo o razširjenosti vrste v tunizijskih vodah.*

Ključne besede: Lobotidae, *Lobotes surinamensis*, celotna dolžina, populacija, razširjenost, tunizijske vode, Sredozemsko morje

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