


SHORT COMMUNICATION

KISA ARAŞTIRMA

## On the occurrence of a lessepsian immigrant *Scomberomorus commerson* (Scombridae) in Izmir Bay (Aegean Sea, Turkey)

### Bir lesepsiyeen göçmen *Scomberomorus commerson*'un (Scombridae) İzmir Körfezi'nde (Ege Denizi, Türkiye) bulunuşu üzerine

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Received date: 31.10.2018

Accepted date: 16.01.2018

#### How to cite this paper:

Akyol, O. & Tosunoğlu, Z. (2019). On the occurrence of a lessepsian immigrant *Scomberomorus commerson* (Scombridae) in Izmir Bay (Aegean Sea, Turkey). *Ege Journal of Fisheries and Aquatic Sciences*, 36(1), 81-84.  
DOI: 10.12714/egejfas.2019.36.1.10

**Abstract:** This paper reports the presence of *Scomberomorus commerson* in the Turkish Aegean Sea. A specimen, measuring 840 mm in TL, was captured off Gediz River Delta, Izmir Bay in the northern Aegean Sea on 06 October 2018. This short note contributes to the ichthyofaunal richness of the northern Aegean Sea, while presenting a new record of *S. commerson* in Izmir Bay.

**Keywords:** Lessepsian species, record, Izmir Bay, Aegean Sea

**Öz:** Bu makale Türk Ege Denizi'nde *Scomberomorus commerson*'un bulunuşunu rapor etmektedir. 840 mm total boyda ölçülmüş bir birey, 6 Ekim 2018 tarihinde Kuzey Ege Denizi'nde Gediz Deltası (İzmir Körfezi) açıklarından yakalanmıştır. Bu kısa not *S. commerson*'un İzmir Körfezi'nde yeni bir kaydını sunarken, kuzey Ege Denizi'nin de ihtiyofaunal zenginliğine katkıda bulunmaktadır.

**Anahtar Kelimeler:** Lessepsiyeen tür, kayıt, İzmir Körfezi, Ege Denizi

#### INTRODUCTION

Narrow-barred Spanish mackerel, *Scomberomorus commerson* (Lacepède, 1800) is a pelagic, highly migratory fish that usually hunts solitary and often swims in shallow water along coastal slopes. It feeds on mainly on schooling fishes such as anchovies, clupeids, carangids, also squids and shrimps. Maximum length is 240 cm FL, common length is 120 cm TL, and it reaches sexual maturity at 65 cm (Golani et al., 2006; Froese and Pauly, 2018).

*S. commerson* spreads originally throughout the Indo-Pacific from the Red Sea and South Africa to Australia and Fiji. It is immigrant to the eastern Mediterranean Sea via the Suez Canal where it can be found westward to at least Tunisia (Golani et al., 2006; Collette et al., 2011; Froese and Pauly, 2018).

In the Mediterranean, *S. commerson* firstly recorded

in Palestine (Hornell, 1935), while has been known from Mersin and Iskenderun Bays, Turkey since 1981 (Gücü et al., 1994). Other successive records were shown in Table 1. This short note contributes to the ichthyofaunal richness of the northern Aegean Sea, while presenting a new record of *S. commerson* in Izmir Bay.

#### MATERIAL AND METHODS

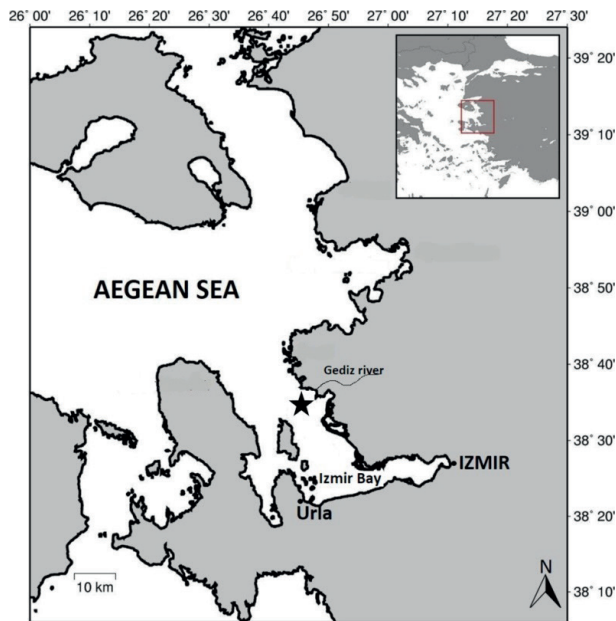
On 06 October 2018, a specimen of *Scomberomorus commerson*, measuring 840 mm TL (Figure 1) was captured by a commercial purse-seiner targeting sardine off Gediz River Delta, Izmir Bay, northern Aegean Sea (coordinates: 38°33'41"N - 26°46'23"E) at a depth of 35 m (Figure 2). The specimen was fixed with 5% formaldehyde solution and deposited in the ichthyological collection of Ege University, Fisheries Faculty and received the following catalog number: ESFM-PIS/2018-08.

**Table 1.** Records of *Scomberomorus commerson* in the Mediterranean Sea

Location	Coordinates Lat. N - Lon. E	Depth (m)	Record Date	Number collected	Size, TL (mm)	References
Coasts of Israel	?	?	1971	3	360-460	Ben-Tuvia (1971)
Coasts of Lebanon	?	?	1970s	1	460 <sup>†</sup>	Ben-Tuvia (1978)
Mersin/Iskenderun Bays	?	?	1981	2	?	Gücü et al. (1994)
Iskenderun Bay	?	?	1991-1994	2	501-550	Torcu and Mater (2000)
Güllük/Gökova Bays	?	?	Nov.-Dec.1994	70	520-870	Buhan et al. (1997)
Iskenderun Bay	?	15-25	Dec.1994-Nov.1996	1	557	Başusta and Erdem (2000)
Alexandria, Egypt	30°05' - 31°15'	?	Nov.1999-Jan.2001	178	40-600	Bakhoun (2007)
Gökova Bay	?	?	2000-2001	1	1130	Öğretmen et al. (2005)
Yeşilova Bay	?	15-25	2002-2004	1 <sup>†</sup>	?	Oz et al. (2007)
off Kelibia, Tunisia	36°52' - 11°10'	46	16 Oct.2004	1	312	Ben Souissi et al. (2006)
off Rhodes, Greece	?	12-14	31 March 2008	1	1020	Corsini-Foka and Kalogirou (2008)
Benghazi, Libya	?	5-70	Aug.2010-Oct.2013	99	234-1400	Elbaraasi (2014)
Izmir Bay	38°33' - 26°46'	35	06 Oct. 2018	1	840	This study

<sup>†</sup>underwater observation; <sup>‡</sup>SL

**Figure 1.** Narrow-barred Spanish mackerel, *Scomberomorus commerson* (ref. ESFM-PIS/2018-08), captured from Izmir Bay, NE Aegean Sea (photo: O. Akyol)



**Figure 2.** Map of sampling area: black star indicates the capture site of *Scomberomorus commerson* in Izmir Bay, Aegean Sea

## RESULTS AND DISCUSSION

Description, measurements and percent in total length (Table 2), recorded of the specimen are in total accordance with Buhan et al., (1997), Golani et al. (2006) and Froese and Pauly (2018).

Since the early 1970s, *S. commerson* has become established in the eastern Mediterranean Sea, including Israel and Lebanon records. Gücü et al. (1994) collected two specimens from Mersin coasts in 1981, and apparently, this was the first record for the Turkish seas. Then, the species reached to from Gökova and Güllük Bays (Turkey) in 1994 (Buhan et al., 1997) to Tunisia in 2004 and Rhodes Island in 2008 (Ben Souissi et al., 2006; Corsini-Foka and Kalogirou, 2008).

Though *S. commerson* is known by some fishermen and some divers from Izmir (I. Temiztepe and A. Özgül, pers. comm.), no specimen has been recorded up to now. The sampled fish was captured beneath an illuminated boat of purse-seiners, targeting sardine and anchovy. On the other hand, one of the places

**Table 2.** Morphometric measurements in mm and as the percentage of total length (%TL) and counts recorded in *Scomberomorus commerson*, captured from Izmir Bay, Aegean Sea

Reference Measurements	ESFM-PIS/2018-08 mm	%TL
Total length	840	100.0
Fork length	732	87.1
Standard length	700	83.3
Predorsal fin length	160	19.0
Prepectoral fin length	155	18.5
Pre-anal fin length	385	45.8
Head length	148	17.6
Eye diameter	19	2.3
Preorbital length	57	6.8
Interorbital length	49	5.8
Counts		
Dorsal fin rays	XVI+16+10 finlets	
Anal fin rays	18+10 finlets	
Pectoral fin rays	21	
Ventral fin rays	I+5	
Total body weight in gram	3153	

where most shrimp is caught in Izmir Bay is the Gediz Delta region. Obviously, the fish has come to the boat, illuminated with strong light, for feeding on sardine, anchovy and shrimp. As a matter of fact the main diet preference of the *S. commerson* is anchovy, shrimps and sardine (Bakhroum, 2007). In conclusion, intermittently records show that *S. commerson* is still a rare species throughout the Mediterranean, even if it occasionally concentrates in large schools. On the other hand, this ichthyologic note presents the fish goes to northern latitudes step-by-step.

## ACKNOWLEDGEMENTS

The authors thank captain and crew of purse-seiner "Afala", and TUBITAK project (no: 118O317).

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