### On the Presence of the Lessepsian *Pomadasys stridens* (Haemulidae) in the Aegean Sea (Marmaris Bay, Turkey)

### Ege Denizi'nde (Marmaris, Türkiye) Lesepsiyen *Pomadasys stridens* (Haemulidae) Balığının Varlığı Üzerine

Türk Denizcilik ve Deniz Bilimleri Dergisi

Cilt: 4 Sayı: 2 (2018) 163-166

### Okan AKYOL<sup>1,\*</sup>, Tülin ÇOKER<sup>2</sup>

<sup>1</sup>Ege University, Faculty of Fisheries, Department of Fishing Technology, Urla, İzmir, Turkey <sup>2</sup>Muğla Sıtkı Koçman University, Faculty of Fisheries, Muğla, Turkey

#### ABSTRACT

This paper reports the presence of new striped piggy, *Pomadasys stridens* specimens in the Turkish Aegean Sea. Four specimens, measuring between 136 and 140 mm in TL, were captured off Marmaris coast, Muğla in southern Aegean Sea on 16 March 2018. This short paper presents second record of the fish in the Aegean Sea that indicates beginning of its established population in the area.

**Keywords:** *Pomadasys stridens*, presence, measurement, Marmaris, Aegean Sea

Article Info Received: 02 August 2018 Revised: 13 September 2018 Accepted: 20 September 2018

Corresponding Author *E-mail: okan.akyol@ege.edu.tr* 

# ÖZET

Bu makale, Ege Denizi'nde yeni *Pomadasys stridens* bireylerinin bulunuşunu rapor etmektedir. 16 Mart 2018 tarihinde 136 ve 140 mm arasında total boyda ölçülen dört birey güney Ege Denizi'nde Marmaris kıyıları (Muğla) açığından yakalanmıştır. Bu kısa makale, Ege Denizi'nde bunların populasyonunun yerleşmeye başladığını gösteren ikinci kaydını sunmaktadır.

Anahtar sözcükler: Pomadasys stridens, bulunuş, ölçüm, Marmaris, Ege Denizi

## **1. INTRODUCTION**

Striped piggy, *Pomadasys* stridens (Forsskål, 1775) is one of the five Haemulid fish, however, single Lessepsian migrant in the Mediterranean Sea (Froese and Pauly, 2018). It inhabits coastal waters and swims in schools over sandy substrates to a maximum depth of 25 m (Golani, et al. 2006; Froese and Pauly, 2018). It feeds on demersal invertebrates, spawning season is in spring and summer, and its eggs and larvae are planktonic (Golani et al. 2006). Pomadasys stridens is known from the Indian Ocean: Red Sea. off South Africa. off Western India and from the East Africa to Mozambique to the Arabian Gulf (Golani et al., 2002; Froese and Pauly 2018). It entered the Mediterranean from the Red Sea via the Suez Canal, where it is found from the Gulf of Iskenderun, Turkey to Egypt (Golani et al. 2006).

In the Mediterranean Sea, P. stridens has been recorded for the first time in the Gulf of Genoa, Italy by Torchio in 1969 (Golani et al. 2002). It was later recorded by Ben-Tuvia (1976) in Bardawil Lagoon, Egypt. Recently, it has been recorded from Yumurtalık Bay, Iskenderun, Turkey (n=6; TL range: 133-158 mm) on 18 October 2009 (Bilecenoğlu et al. 2009); from Israel coasts (n=18; TL range: 69-145 mm) in 2008-2011 (Edelist, 2014); from Iskenderun Bay (n=335; TL range: 76-177 mm) in 2011-2012 (Ergüden et al., 2015); from Cape Greco, Cyprus (n=1; TL: 149 mm) on 20 September 2014 (Iglésias and Frotté, 2015); from Bitter Lakes in Suez

Canal, Egypt (TL range: 70-199 mm) between January 2013 and January 2014 (El-Azim et al., 2017); from Gökova Bay (n=1; TL: 130 mm) on 03 November 2015 (Akyol and Ünal, 2016) and this was the first record of *P. stridens* in the Aegean Sea.

## 2. MATERIAL AND METHOD

On 16 March 2018, four specimens of *P. stridens* (Figure 1) was captured by a trammel net, targeted red mullets, from Marmaris Bay, SE Aegean Sea ( $36^{\circ}50'.00$  N -  $28^{\circ}15'.00$  E) at a depth of 12 m. The specimens were fixed in 5% formaldehyde solution and stored in the fish collection of the Muğla Sıtkı Koçman University, Fisheries Faculty (MUSUM/PIS/2018-2).



**Figure 1.** *Pomadasys stridens*, caught from Marmaris Bay, SE Aegean Sea (ref. MUSUM/PIS/2018-2) (Photograph: T. Çoker)

### **3. RESULTS AND DISCUSSION**

The specimen was measured to the nearest millimeter (Table 1). All determined measurements, and color patterns are in accordance with the descriptions of Ben-Tuvia and McKay (1986), Golani et al. (2002, 2006), Bilecenoğlu et al. (2009), Akyol and Ünal (2016) and Froese and Pauly (2018).

The recent records show that *P. stridens* especially settled in north-eastern

Mediterranean coasts of Turkey. However, one specimen found in Cape Greco, Cyprus (Iglésias and Frotté, 2015) and the recent two records (Akyol and Ünal, 2016 and this study) from the Aegean Sea also show that *P. stridens* is advancing westward step by step. Therefore, this short paper presents additional record of the fish in the Aegean Sea that indicates beginning of its established population in the area.

**Table 1.** Morphometric measurements, ratios and counts of *Pomadasys stridens*, captured from Marmaris Bay, SE Aegean Sea

Specimens	1		2		3		4	
	Size	Proportion	Size	Proportion	Size	Proportion	Size	Proportion
Measurements	(mm)	%	(mm)	%	(mm)	%	(mm)	%
Total length (TL)	136		136		140		137	
Standard length (SL)	116	85.3 TL	116	85.3 TL	125	89.3 TL	117	85.4 TL
Maximum body depth	34	25.0 TL	34	25.0 TL	37	26.4 TL	33	24.1 TL
Pre-dorsal fin length	33	24.3 TL	33	24.3 TL	36	25.7 TL	35	25.5 TL
Pre-pelvic length	34	25.0 TL	33	24.3 TL	35	25.0 TL	34	24.8 TL
Pre-anal fin length	76	55.9 TL	76	55.9 TL	79	56.4 TL	76	55.5 TL
Head length (HL)	32	23.5 TL	33	24.3 TL	36	25.7 TL	32	23.4 TL
Eye diameter	9	28.1 HL	9	27.3 HL	10	27.8 HL	10	31.3 HL
Preorbitary length	9	28.1 HL	9	27.3 HL	10	27.8 HL	9	28.1 HL
Counts								
1st Dorsal fin rays	XII		XII		XII		XII	
2nd Dorsal fin rays	13		14		13		13	
Anal fin rays	III+8		III+8		III+8		III+8	
Pectoral fin rays	16		16		17		16	
Ventral fin rays	I+5		I+5		I+5		I+5	
Weight (g)	39		36		41		36	

### ACKNOWLEDGEMENTS

The authors thank Mr. Mehmet Poyraz, who caught the fish, for his cooperation.

### **5. REFERENCES**

Froese, R., Pauly, D., (2018). FishBase. World Wide Web electronic publication, <u>www.fishbase.org</u> is retrieved [version 06/2018] (accessed date: 18 July 2018).

Golani, D., Öztürk, B., Başusta, N. (2006). *The fishes of the eastern Mediterranean*, Turkish Marine Research Foundation, Publication No. 24, Istanbul, 259 pp.

Golani, D., Orsi-Relini, L., Massuti, E., Quignard, J.P. (2002). *CIESM Atlas of exotic species in the Mediterranean*. Vol. I, Fishes. CIESM Publications, Monaco.

Ben-Tuvia, A., (1976). Occurrence of Red Sea fishes *Herklotsichthys punctatus, Autisthes puta* and *Rhonciscus stridens* in the eastern Mediterranean. *Israel Journal of Zoology* 25(4): 212-213.

Bilecenoğlu, M., Kaya, M., Eryiğit, A., (2009). New data on the occurrence of two alien fishes, *Pisodonophis semicinctus* and *Pomadasys stridens*, from the Eastern Mediterranean Sea. *Mediterranean Marine Science* 10(2): 151-155. Edelist, D., (2014). New length-weight relationships and  $L_{max}$  values for fishes from the southeastern Mediterranean Sea. *Journal of Applied Ichthyology* 30(3): 521-526.

Ergüden, D., Ergüden, S.A., Gürlek, M., (2015). Length-weight relationships for six fish species in Iskenderun Bay (Eastern Mediterranean Sea coast of Turkey). *Journal of Applied Ichthyology* 31(6): 1148-1149.

Iglésias, S.P., Frotté, L., (2015). Alien marine fishes in Cyprus: update and new records. *Aquatic Invasions* 10(4): 425-438.

El-Azim, H.A., Mehanna, S.F., Belal, A.A., (2017). Impacts of water quality, fishing mortality and food availability on the Striped piggy *Pomadasys stridens* production in Bitter Lakes, Egypt. *Annals of Marine Science* 1(1): 19-27.

Akyol, O., Ünal, V., (2016). First Record of a Lessepsian Migrant, *Pomadasys stridens* (Actinopterygii: Perciformes: Haemulidae), From the Aegean Sea, Turkey. *Acta Ichthyologica et Piscatoria* 46(1): 53-55.

Ben-Tuvia, A., McKay, R., 1986. Haemulidae. In: "Fishes of the north-eastern Atlantic and the Mediterranean", (P.J.P. Whitehead, M.L. Bauchot, J.C. Hureau, J. Nielsen, E. Tortonese, eds.), Vol. II (pp. 858-864). Paris, France: UNESCO, 1473 pp.