

Occurrence of the Lessepsian *Hemiramphus far* (Hemiramphidae) in Güllük Bay, South-eastern Aegean Sea

Güllük Körfezi'nde (Ege Denizi) Leseptiyen *Hemiramphus far* (Hemiramphidae)'ın Bulunuşu

Türk Denizcilik ve Deniz Bilimleri Dergisi

Cilt: 5 Sayı: 2 (2019) 69-73

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ABSTRACT

A specimen of the spotted halfbeak, *Hemiramphus far* with 282 mm TL has been caught by a commercial gillnet off Küçüktaşı Island, Güllük Bay at a depth of 15 m on 09 February 2019. This paper presents the first occurrence of *H. far* in the Bay of Güllük. At the same time, this short note was the third record of *H. far* for the Turkish Aegean Sea after Gökova Bay and Eski Foça.

Keywords: Rare species, lessepsian, record, Güllük Bay, Aegean Sea.

Article Info

Received: 06 March 2019

Revised: 11 April 2019

Accepted: 12 April 2019

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ÖZET

Güllük Körfezi Küçüktavşan Adası açıklarında 15 m derinlikte, 282 mm boyunda bir *Hemiramphus far* bireyi 9 Şubat 2019 tarihinde ticari bir solungaç ağıyla yakalanmıştır. Bu makale Güllük Körfezi'nde *H. far*'ın ilk kaydını sunmaktadır. Aynı zamanda bu kısa not, Gökova Körfezi ve Eski Foça'dan sonra *H. far*'ın Ege Denizi'nin Türkiye kıyıları için üçüncü kayıdır.

Anahtar sözcükler: Nadir tür, lesepsiyen, kayıt, Güllük Körfezi, Ege Denizi.

1. INTRODUCTION

Spotted halfbeak, *Hemiramphus far* (Forsskål, 1775) is an epipelagic, schooling fish that swims usually close to the sea surface in coastal waters. It's size to 40 cm with common 10-33 cm. It feeds on zooplankton and floating matters, *i.e.* sea grasses, but also green algae and sometimes diatoms (Collette and Parin, 1986; Golani et al., 2006).

Originally, it has wide Indo-Pacific distribution and invaded the Mediterranean from the Red Sea via the Suez Canal and well established in its new habitat from Rhodes to Egypt (Golani et al., 2006).

This paper presents the first occurrence of *H. far* in the Bay of Güllük, and at the same time, it is additional Lessepsian fish record going towards to northern latitude of the Aegean Sea.

2. MATERIAL AND METHODS

On 09 February 2019, one specimen of *Hemiramphus far* (Figure 1), was caught by a commercial gillnet (stretched mesh size 72 mm) off Küçüktavşan Island, Güllük Bay (lat 39°09 N, long 27°21 E) at a depth of 15 m (Figure 2). The species was identified according to Collette and Parin (1986) and Golani et al. (2006). The sample, fixed in 6% formaldehyde solution, has been preserved in the fish collection of the Fisheries Faculty, Ege University (ESFM-PIS/2019-01).



Figure 1. *Hemiramphus far*, caught off Küçüktavşan Island, Güllük Bay (scale: 50 mm) (Photo: O. Akyol)

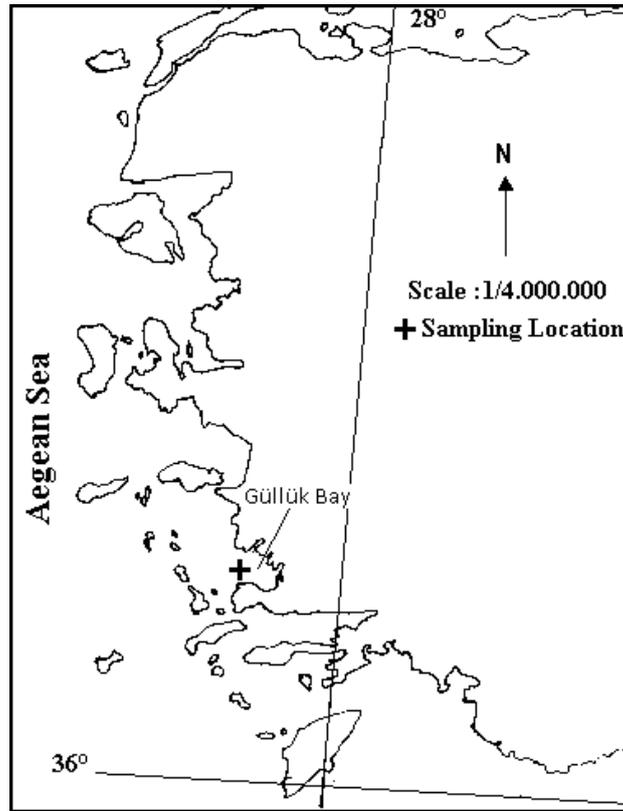


Figure 2. Sampling location of *Hemiramphus far*

3. RESULTS AND DISCUSSION

The specimen was identified as follows: its body laterally compressed, elongate oval in cross-section. Lower lobe of the caudal fin is longer than upper. Triangular portion of upper jaw is naked (*i.e.* no scales), and preorbital ridge is absent. Morphological description, colour, morphometric measurements with percentages of total length (TL%) and meristic counts (Table 1) are in agreement with Collette and Parin (1986), Golani et al. (2006) and Rafrafi-Nouira *et al.* (2012).

In the Mediterranean Sea, *H. far*'s (as *H. marginatus*) first record dates back 1927, when it was caught in Palestinian waters (Steinitz, 1927). Though, *H. far* has only been very common off Israel and

Lebanese waters in 1980s (Collette and Parin, 1986), it has reached to the coast of Albania (Collette and Parin, 1986), the Libyan coasts (Shakman and Kinzelbach, 2006), Gulf of Tunis, Tunisia (Rafrafi-Nouira *et al.*, 2012), Collo, eastern Algerian coast (Kara et al., 2012) and Lampedusa Island, Strait of Sicily (Falautano et al., 2014) for the time being. In Turkish seas, *H. far* has been recorded first from the Turkish coasts of Mediterranean (Kosswig, 1950). A specimen of *H. far* with 286 mm length was caught the stationary nets around the IMS-METU harbour in Mersin Bay in 1980s (Gücü et al., 1994). Then, four specimens (233-282 mm) have been recorded from Iskenderun and Gökova Bays, Aegean Sea during 1991-1994 (Torcu and Mater, 2000). *H. far* (246 mm)

was also recorded from the coasts of Karataş, Iskenderun Bay between 1994 and 1996 (Başusta and Erdem, 2000).

In the Aegean Sea, Geldiay (1969) mentioned the *H. far* (as *H. marginatus*) in the Aegean Sea only by name, but no solid details. Papaconstantinou (1990) reported *H. far* from the north-western Rhodes Island, Greece in southern Aegean Sea. After its record in Gökova Bay, mentioned above (Torcu and Mater, 2000), a specimen (146 mm) has been

caught off Eski Foça coasts on 10 November 2009 (Akça and Bilecenoğlu, 2010). This was a northernmost record throughout the Aegean Sea.

The occurrence of *H. far* in the coasts of Güllük Bay is not unexpected due to the previous records of the species from the Rhodes, Gökova Bay and Eski Foça, Aegean Sea. This record reveals that the rare *H. far* is likely to widely settlement in the Aegean Sea.

Table 1. Morphometric measurements, ratios and meristic counts of *Hemiramphus far*, captured from Güllük Bay, Aegean Sea

Measurements	Size (mm)	Proportion (TL%)
Total length (TL)	282	
Standard length (SL)	240	85.1
Fork length (FL)	250	88.7
Pectoral fin length	32	11.3
Pre-dorsal fin length	145	51.4
Pre-anal fin length	150	53.2
Lower jaw length	59	20.9
Upper jaw length	8	2.8
Maximum body depth	20	7.1
Body width	20	7.1
Head length	41	14.5
Eye diameter	11	3.9
Preorbitary length	14	5.0
Meristic counts		
Dorsal fin rays		11
Anal fin rays		10
Pectoral fin rays		12
Ventral fin rays		6
Weight (g)		61.4

ACKNOWLEDGEMENTS

The authors would like to thank Ege University Scientific Research Coordination Unit (Project no: 2017/SAUM/001) for financial support.

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