



## SHORT COMMUNICATION

### Additional record of *Hemiramphus far* (Forsskål, 1775) (Hemiramphidae) in Northern Aegean Sea (İzmir Bay, Turkey)

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#### ABSTRACT

On December 5, 2018, a specimen of the spotted halfbeak, *Hemiramphus far* has been caught by a purse-seiner off Gediz River delta, İzmir Bay at a depth of 40 m. This paper presents the first occurrence of *H. far* in İzmir Bay. At the same time, this short note presents the fourth record of *H. far* for the Turkish Aegean Sea, including Gökova and Güllük Bays, and Eski Foça.

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#### Introduction

Spotted halfbeak, *Hemiramphus far* (Forsskål, 1775) is an epipelagic, schooling fish that usually swims close to the sea surface in coastal waters. *H. far* has wide Indo-Pacific distribution and invaded the Mediterranean from the Red Sea

via the Suez Canal and established in its new habitat from Rhodes to Egypt (Collette and Parin, 1986; Golani et al., 2006).

In the Mediterranean Sea, *H. far* (as *H. marginatus*) has been first recorded in Palestinian waters (Steinitz, 1927). It has been widespread off Israel and Lebanese waters since 1980s and reached to the coast of Albania (Collette and Parin, 1986), the Libyan coasts (Shakman and Kinzelbach, 2006), Gulf of Tunis

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(Rafrafi-Nouira et al., 2012), eastern Algerian coast (Kara et al., 2012) and Lampedusa Island, Strait of Sicily (Falautano et al., 2014).

In Turkish seas, *H. far* has been recorded first from the Turkish coasts of Mediterranean (Kosswig, 1950). The samples of *H. far* have been documented from Mersin Bay in 1980s (Gücü et al., 1994), then, from Iskenderun and Gökova Bays, Aegean Sea (Torcu and Mater, 2000), from the coasts of Karataş, Iskenderun Bay (Başusta and Erdem, 2000). In the Aegean Sea, Geldiay (1969) mentioned the *H. far* (as *H. marginatus*) in the Aegean Sea only by name. Other successive records were given from the north-western Rhodes Island, Greece (Papaconstantinou, 1990), Gökova Bay (Torcu and Mater, 2000), from Eski Foça (Akça and Bilecenoğlu, 2010) and Güllük Bay (Akyol and Ertosluk, 2019).

This paper presents the first occurrence of *H. far* in İzmir Bay, and at the same time, it is added as a lessepsian fish record going towards to northern latitude of the Aegean Sea.

## Material and Methods

On December 5, 2018, one specimen of *Hemiramphus far* (Figure 1), was caught by a purse-seiner off Gediz River delta, İzmir Bay (38°34'240 N 26°46'533 E) at a depth of 40 m (Figure 2). The sample, fixed in 6% formaldehyde solution, has been preserved in the fish collection of the Fisheries Faculty, Ege University (ESFM-PIS/2018-10).



**Figure 1.** *Hemiramphus far*, caught from İzmir Bay (Photo: O. Akyol)

**Table 1.** Morphometric measurements, ratios and meristic counts of *Hemiramphus far*, captured from İzmir Bay, northern Aegean Sea and previous records from the Mediterranean [<sup>1</sup>This study; <sup>2</sup>Rafrafi-Nouira et al. (2012); <sup>3</sup>Kara et al. (2012); <sup>4</sup>Falautano et al. (2014); <sup>5</sup>Akyol and Ertosluk (2019)]

Locality	İzmir Bay <sup>1</sup>		Tunisia <sup>2</sup>	Algeria <sup>3</sup>	Lampedusa <sup>4</sup>	Güllük Bay <sup>5</sup>
	n=1		n=1	n=2	n=7	n=1
Measurements	Size (mm)	Proportion (TL%)	Size (mm)	Size (mm)	Size (mm)	Size (mm)
Total length (TL)	210		365	259-290	175-252	282
Fork length (FL)	189	90.0	329	222-249	139-205	250
Standard length (SL)	180	85.7	315	213-234	131-197	240
Pectoral fin length	25	11.9	11.4	45-57	23-39.1	32
Pre-dorsal fin length	106	50.5	254	168-181	100-156	145
Pre-anal fin length	113	53.8	268	173-195	104-158	150
Lower jaw length	46	21.9	74.1	70-75	42-60	59
Upper jaw length	5	2.4	12.2	9-10	3.6-6.4	8
Maximum body depth	18	8.6	28.4	-	19-31	20
Body width	12	5.7	-	-	-	20
Head length	31	14.8	118.7	45-56	29.8-43	41
Eye diameter	7	3.3	13.5	12-13	7.8-10.8	11
Interorbital distance	8	3.8	15.2	13-14	7.4-12	-
<b>Meristic counts</b>						
Dorsal fin rays	11		12	-	12-13	11
Anal fin rays	10		11	-	10-12	10
Pectoral fin rays	11		13	-	12	12
Ventral fin rays	6		6	-	6	6
Weight (g)	21		143.2	-	16-84	61.4

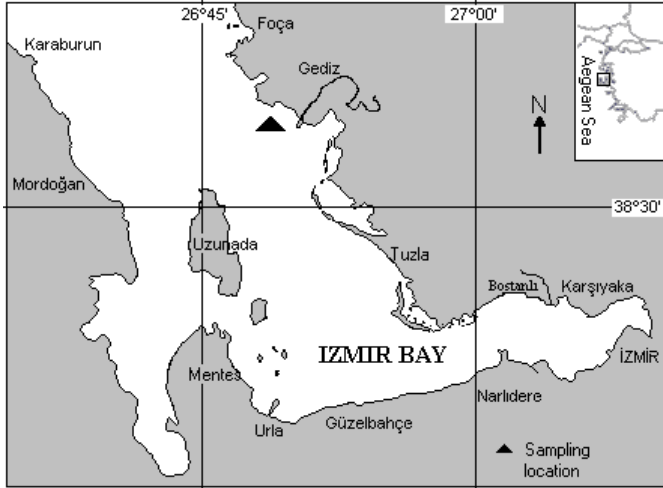


Figure 2. Sampling location of *Hemiramphus far*

## Results and Discussion

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 Akyol and Ertosluk (2019). In addition, some previous records throughout the Mediterranean were shown in Table 1, and TL and weight of *H. far* in the Mediterranean were between 175 and 365 mm, and 16 and 143.2 g, respectively. The largest specimen with 365 mm TL was recorded off Ras Jebel, Tunisia (Rafrafi-Nouira et al., 2012).

## Conclusion

At northernmost, *H. far* has been recorded off Eski Foça by Akça and Bilecenoğlu (2010), and further individuals were observed in the same area. So, the occurrence of *H. far* in the coasts of İzmir Bay is not unexpected due to the previous records of the Aegean Sea. This record signs that *H. far* has started to settlement in northern Aegean Sea widely.

## Conflict of Interest

The authors declare that there is no conflict of interest.

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