

## Northernmost occurrence of *Hemiramphus far* (Actinopterygii: Hemiramphidae) in the Aegean Sea

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### Abstract

A new record of *Hemiramphus far* from the northern Aegean Sea is presented, based on a single specimen collected off Eski Foça shores, Turkey. Further individuals were observed (but not collected) in the same area, indicating an established population.

**Keywords:** *Hemiramphus far*; Alien fish; Aegean Sea.

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### Introduction

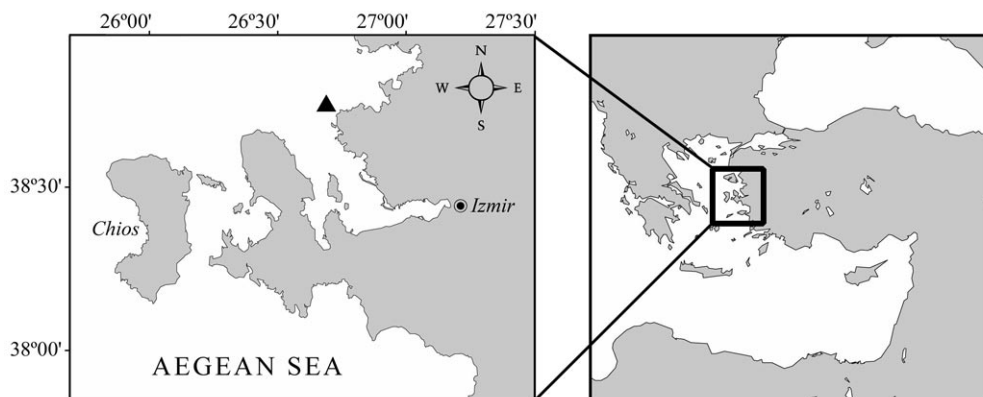
Blackbarred halfbeak, *Hemiramphus far* (Forsskal, 1775), among the first Lessepsian migrant fishes in the Mediterranean Sea, was initially observed in Palestine in 1927 and followed by further records from Egypt, Syria, Cyprus, southern Anatolia and the Dodecanese islands (DEMETROPOULOUS & NEOCLEOUS, 1969; GOLANI *et al.*, 2002). The species has recently reached eastern Libyan coasts, where it has established an abundant and commercially exploited population (SHAKMAN & KINZELBACH, 2007), as already reported in other areas of its distribution (CARPENTIERI *et al.*, 2008). Despite its relatively early introduction into the Mediterranean, *H. far* has not penetrated much

to the north of Rhodes island until now (PAPACONSTANTINO, 1990). In this paper, we report the first observation of Blackbarred halfbeak, based on material collected from the Northern Aegean Sea.

On 10 November 2009, a single specimen of *H. far* (14,6 cm in standard length, Fig. 1) was caught at Aslanburnu (Eski Foça, northern Aegean Sea) (Fig. 2) by a commercial purse seiner at a depth of 60-70 m. The specimen was fixed in formalin (4%) and kept in the zoology collection of Adnan Menderes University (catalogue number 2009-001). A total of seven additional specimens were fished from the same locality during December 2009, but they were not preserved. Standard length and head length were measured from tip of upper jaw, following COLLETTE (1999). De-



**Fig. 1:** *Hemiramphus far* (Forsskål, 1775) specimen (14.6 cm in SL), captured off Eski Foça (Northern Aegean Sea).



**Fig. 2:** Map showing the capture locality of *Hemiramphus far* (Forsskål, 1775), indicated by full triangle.

scription of the examined specimen is as follows: Dorsal finrays 13, anal finrays 11, ventral finrays 6, pectoral finrays 12, anal finrays 11, lateral line scales 48, predorsal scales 36. No spines in fins. Body laterally compressed and elongate; lower jaw prolonged, upper jaw short. Head length 22.6 %, lower jaw length 32.2%, maximum body depth 13.7%, body depth at level of anus 11.0%, all as percentage of SL. Eye diameter 24.2%, interorbital distance 27.3%, upper jaw 15.2%, postorbital length 42.4%, all as percentage of head length. Pectoral fins short, 5.9 times in SL. Lower lobe of caudal fin much longer than upper. Preorbital ridge absent. Four vertical bars present on sides of body. Measurements and

counts are in agreement with COLLETTE & PARIN (1986) and COLLETTE (1999).

The Levantine basin is the core distribution and settlement area for alien fishes and there are still a few occurrence records from the Northern Aegean Sea, which is characterized by relatively colder and less saline waters. Only nine alien fish are currently known above the 38° parallel of the Aegean Sea, the majority comprising euryhaline and eurythermic fishes (BILECENOGLU, 2010). The blackbarred halfbeak is no exception, since it is known to enter river estuaries with salinities and surface water temperatures as low as 22.7 ‰ and 17.9°C, respectively (JAMES & HARRISON, 2009). Personal communi-

cation with local fishermen indicates that the occurrence of *H. far* in the Northern Aegean Sea is very recent, and the observation of eight individuals within three months reveals an established population in the area.

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## References

- BILECENOGLU, M., 2010. Alien marine fishes of Turkey – an updated review. p.189-217. In: *Fish invasions of the Mediterranean – change and renewal*, D. Golani & B. Appelbaum-Golani (Eds), Sofia, Pensoft Publishers.
- CARPENTIERI, P., LELLI, S., COLLOCA, F., MOHANNA, C., BARTOLINA, V., MOUBAYED, S. & ARDIZZONE, G.D., 2008. Incidence of lessepsian migrants on landings of the artisanal fishery of South Lebanon. *Journal of the Marine Biological Association - Biodiversity Records*, 6146: 1-6.
- COLLETTE, B.B. & PARIN, N.V., 1986. Hemiramphidae. p. 620-622. 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. 2, Paris, UNESCO.
- COLLETTE, B.B., 1999. Hemiramphidae. p.2180-2196. In: *FAO species identification guide for fishery purposes, The living marine resources of the Western Central Pacific*, Volume 4, Bony fishes part 2 (Mugilidae to Carangidae), Rome, FAO.
- DEMETROPOULOS, A. & NEOCLEOUS, D., 1969. The fishes and crustaceans of Cyprus. *Fisheries Bulletin, Ministry of Agriculture and Natural Resources, Fisheries Department*, 1: 1-21.
- GOLANI, D., ORSI-RELINI, L., MASSUTI, E. & QUIGNARD, J.-P., 2002. CIESM *Atlas of Exotic species in the Mediterranean* Volume 1: Fishes. F. Briand (Ed), Monaco. CIESM Publishers, 256 pp.
- JAMES, N.C. & HARRISON, T.D., 2009. A preliminary survey of the estuaries on the south coast of South Africa, Cape St Blaize, Mossel Bay - Robberg Peninsula, Plettenberg Bay, with particular reference to the fish fauna. *Transactions of the Royal Society of South Africa*, 63 (2): 111-127.
- PAPACONSTANTINOU, C., 1990. The spreading of Lessepsian fish migrants into the Aegean Sea. *Scientia Marina*, 54 (4): 313-316.
- SHAKMAN, E.A. & KINZELBACH, R., 2007. Distribution and characterization of Lessepsian migrant fishes along the coast of Libya. *Acta Ichthyologica et Piscatoria*, 37 (1): 7-15.

