

SHORT COMMUNICATION

**On the presence of the black wing flyingfish
Hirundichthys rondeletii (Valenciennes, 1846) in the
Lebanese waters, the eastern Mediterranean Sea**

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Abstract

The presence of the black wing flyingfish *Hirundichthys rondeletii* (Valenciennes, 1846) was reported for the first time from the Lebanese waters. It was caught by a professional fisherman in Beirut on 27 December 2009. The present note reports details about this record.

Keywords: Flyingfish, record, Lebanese waters, eastern Mediterranean

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Exocoetidae Risso, 1827 is a family of flyingfishes represented in the Mediterranean Sea by seven species (Ben Souissi *et al.* 2005; Fricke *et al.* 2020): *Cheilopogon furcatus* (Mitchill, 1815), *Exocoetus volitans* Linnaeus, 1758, *Exocoetus obtusirostris* Gunther, 1866, *Cheilopogon exsiliens* (Linnaeus, 1771), *Cheilopogon heterurus* (Rafinesque, 1810), *Hirundichthys rondeletii* (Valenciennes, 1846) and *Parexocoetus mento* (Valenciennes, 1846). The last four species are known to occur in the eastern Mediterranean Sea (Ibrahim and Soliman 1996; Saad 2005; Golani *et al.* 2006; Bilecenoğlu *et al.* 2014; Haroun *et al.* 2017; Abu Amra 2018; Ali 2018). Until today, Exocoetidae comprises three species in the Lebanese waters: *Cheilopogon heterurus* (Rafinesque 1810), *Exocoetus volitans* Linnaeus 1758, and the non-indigenous African sailfin flyingfish *Parexocoetus mento* (Valenciennes 1847) (Bariche and Fricke 2020).

In particular, the black wing flyingfish *Hirundichthys rondeletii* is an oceanic circumglobal epipelagic fish distributed in the Atlantic, Indian and Pacific (Louisy 2002; Coad 2011; Chang *et al.* 2012; Churnside *et al.* 2017; Wirtz *et al.* 2017; Fricke *et al.* 2020). It is characterized by its attractive appearance and for

the commercial value of its eggs (Uygun and Hoşsucu 2018). In the Mediterranean, this species was reported from the eastern basin, as mentioned above, and also the Balearic, Ligurian, Tyrrhenian, Adriatic, Ionian, Lybian and Aegean Seas (Parin and Belyanina 2002; Ben Souissi *et al.* 2005; Francour 2007; Bilecenoğlu *et al.* 2014; Álvarez *et al.* 2015; Béarez *et al.* 2017; Haroun *et al.* 2017; Abu Amra 2018; Ali 2018; Shakhovskoy and Malikova 2018; Uygun and Hoşsucu 2018; ElBaraasi *et al.* 2019; Fricke *et al.* 2020). However, *H. rondeletii* has a limited number of records and it is considered as a rare species (Akyol *et al.* 2011; Capapé *et al.* 2016). This limited number of records can be explained first by the presence of few individuals reported from the Adriatic Sea (Zavodnick and Kovacic 2000), the Egyptian (Ibrahim and Soliman 1996; Farrag *et al.* 2014; Haroun *et al.* 2017), as well as the Tunisian waters (Bradai *et al.* 2004; Capapé *et al.* 2016; Akel and Karachle 2017). In the eastern Mediterranean Sea, *H. rondeletii* has been already reported from the Turkish (Gücü and Bingel 1994; Akyol *et al.* 2011; Bilecenoğlu *et al.* 2014; Özsoy *et al.* 2016; Lipej *et al.* 2018; Uygun and Hoşsucu 2018), and the Syrian (Saad 2005; Ali 2018) waters. Moreover, it has been recorded from the southern Levantine coast (Galil *et al.* 2011; Abu Amra 2018) although the presence of this species has not been reported until now in the Lebanese waters. This note reports the first record of *H. rondeletii* in Lebanon.

On 27 December 2009, a total of six adult specimens of *H. rondeletii* with around 80 individuals of the non-indigenous black-barred halfbeak *Hemiramphus far* (Forsskål, 1775) were caught by a professional fisherman using gillnets hanged at the surface offshore Beirut waters (33°54'14.84"N, 35°28'51.25"E, Figure 1).

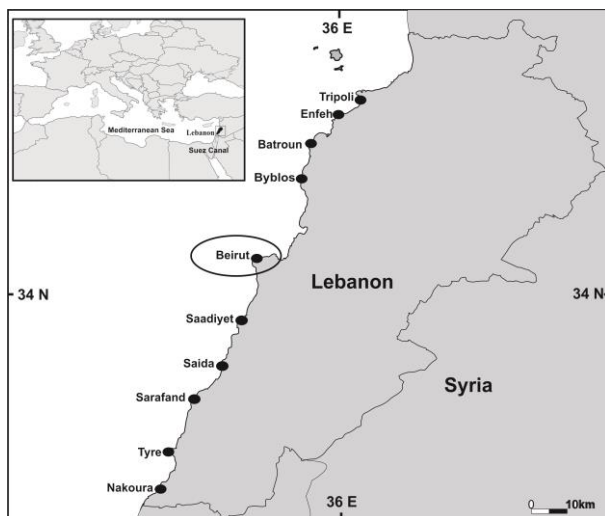


Figure 1. Location where *Hirundichthys rondeletii* was caught and photographed in Beirut, Lebanon

The collected specimen was around 200 mm in total length and 50 g in total weight (Figure 2). Morphologically, *H. rondeletii* is distinguished by its elongate, nearly rectangular and almost ventrally flat body that is dark above and pale below. According to Louisy (2002), this species is also characterized by its colourful dark reddish brown pectoral fin.

The specimen had the following diagnostic characters: dorsal fin low, with 10 soft rays, anal fin with 11 soft rays, originating slightly before the dorsal fin, pectoral fin 1.3 cm in standard length, with 17 soft rays and finally the pelvic fins 2.8 to 3.4 cm in standard length, inserted slightly nearer to posterior margin of opercula than the origin of the caudal-fin base (Figure 2).

The report of *H. rondeletii* in December, during the winter season in Lebanon, was in agreement with the general fact that this species is observed during winter in the eastern Mediterranean (Louisy 2002; Lipej 2018).



Figure 2. *Hirundichthys rondeletii* caught in Beirut Lebanese waters
(Photos: Ghazi Bitar)

Recently, new marine species, especially from the phylum Chordata, are increasingly recorded in the Lebanese waters (Badreddine and Bitar 2019; Bariche and Fricke 2020). This fact is mainly due to the use of citizen science as an effective monitoring tool to detect new marine species.

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