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Short Communication

First record of Red cornetfish, *Fistularia petimba* Lacepède, 1803 (Actinopterygii: Fistulariidae) from the Syrian coast

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Abstract: Fistulariidae species (Cornetfishes) exist in tropical and subtropical waters having four species; two of them are found in the Mediterranean Sea. This study records *Fistularia petimba* from the Syrian marine waters for the first time, filling the gap in its distribution along the eastern Mediterranean.

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Introduction

For decades, marine species are moving from tropical to subtropical waters, especially to the Mediterranean, which is under natural and anthropogenic stressors (Mavruk and Avsar, 2008; Alshawy et al., 2019 b, c) and accommodates more than 100 new species (Zenetos et al., 2012). Some of these species exploit the resources and succeeded in colonizing and threatening the native populations and human health (Zenetos et al., 2004; Ibrahim, 2008; Plan, 2009). Fistulariid species (Cornetfishes) exist in tropical and subtropical waters having four species that two are found in the Mediterranean Sea (Froese and Pauly, 2019). *Fistularia commersonii* is known to be distributed along the Mediterranean Sea, and was record for the first time in the Syrian coast in 2002 (Galyia, 2003). The second one, *F. petimba* Lacepède, 1803, was recorded at the Spanish Mediterranean coast (west Mediterranean) in 1997 (Cárdenas et al., 1997), and in 2016 was recorded in the eastern Mediterranean, at Ashdod coast and Mersin Bay (Stern et al., 2017; Ünlüoğlu et al., 2018), but never in the Syrian coasts (Ali, 2018). This paper report the first record of *F. petimba* in the Syrian marine waters, filling the gap in its distribution along the eastern Mediterranean between Ashdod coast and Mersin Bay.

Materials and Methods

On 29 July 2019, a field trip was performed in the marine waters facing Lattakia city, Syria (35°31'5.97"N, 35°42'48.57"E; Fig. 1) to collect fish samples using fixed gillnet (18 mm mesh size, 3 m height, 200 m length: with duplicates), with fishing boat (9.5 m, 19HP). The collected *F. petimba* was identified according to Carpenter and De Angelis (2016) and morphometric measurements (length to the nearest mm, weight to the nearest g) and meristic counts were recorded. The specimen was then photographed, preserved in 7% formaldehyde, and placed at the Biological Laboratory of the High Institute of Marine Research (Tishreen University, Lattakia, Syria) (unnumbered yet).

Results and Discussions

A single specimen of *F. petimba* (Fig. 2) was caught at ~45 m water depth off Lattakia coast. It has a long and lightly compressed body, with a long tubular snout and small mouth. The dorsal fin locates approximately at the end of the body, caudal fin is clearly forked and has one elongated filament (Fig. 2a). The dorsal side of the body has a row of bony

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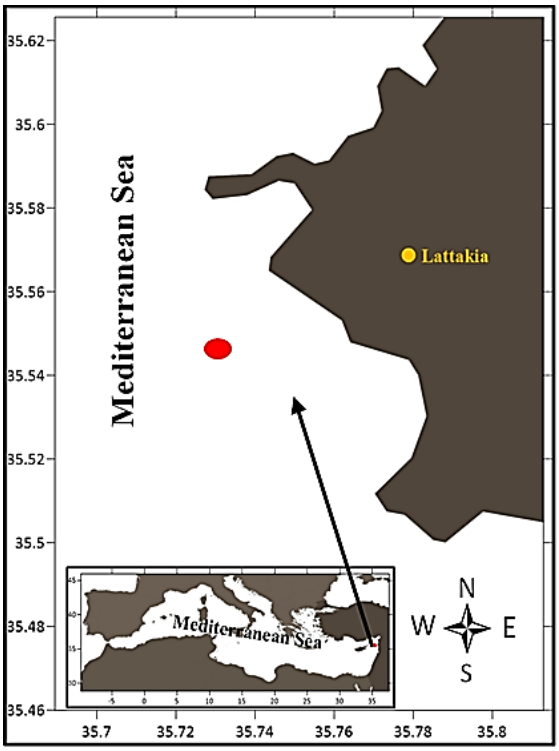

Figure 1. Collection site of *Fistularia petimba* from the Syrian marine waters.

plates (Fig. 2b) stretching along to the end. The posterior part of the body has a series of backward-pointing spines on each side (Fig. 2c). The body is colored orange-brown and the abdominal side is pearly white. The margins of dorsal, anal and caudal fins are bright orange. The meristic formula are D: 15, A: 15; P: 15, V: 6, C: 7. These features of *F. petimba* are in agreement with Carpenter and De Angelis (2016) and Ünlüoğlu et al. (2018). The morphometric measurements are shown in Table 1.

The red cornetfish exists in the Atlantic and Indo-Pacific oceans (Carpenter and De Angelis, 2016) and Red Sea (Bogorodsky et al., 2014). It was passed from Atlantic to the Spanish Mediterranean coast for the first time via Gibraltar (Cárdenas et al., 1997). Then, it was recorded in Ashdod and Mersin Bay, presumably interring through the Suez Canal (Çiftçi et al., 2019). This species is metaphorically regarded as Lessepsian one, especially that it was not recorded in the Mediterranean coasts of Africa or Europe, except Spain (Bearez et al., 2017; El Sayed Haroun and Karachle, 2017). *Fistularia petimba* was not recorded from the Syrian marine before (Alshawy et al., 2019a,

Table 1. Morphometric and biometric characteristics of *Fistularia petimba* caught from the Syria marine water.

Features	Measurement (mm or g)
Total length	642
Standard length	448
Body depth	13 (2.9% SL)
Head length	157 (35.04% SL)
Eye diameter	15 (3.35% SL)
Snout length	128 (28.57% SL)
Dorsal fin length	17 (3.79% SL)
Dorsal fin height	28 (6.25% SL)
Pectoral fin length	9 (2.01% SL)
Pectoral fin height	20 (4.46% SL)
Pelvic fin length	4 (0.89% SL)
Pelvic fin height	10 (2.23% SL)
Caudal fin length	26 (5.80% SL)
Anal fin length	17 (3.79% SL)
Anal fin height	27 (6.03% SL)
Pre-dorsal length	372 (83.04% SL)
Pre-pectoral length	175 (39.06% SL)
Pre-pelvic length	258 (57.59% SL)
Pre-anal length	372 (83.04% SL)
Total weight	54

d, e), may be because of misidentification with the other similar species e.g. *F. commersonii*. In fact, despite the large similarity, many morphological differences occur between these two species. *Fistularia commersonii* does not have any bony plates or backward-pointing spines that are the distinctive features of *F. petimba*. In addition, *F. commersonii* is green or bluish green, while *F. petimba* is red to orange-brown. The sagittal body of *F. petimba* may enable easy escape through the mesh of fishing nets, which may lower its landings and accelerates its population enlargement and possible establishment in this area.

Fistularia petimba feeds on small fish and shrimp (Carpenter and Niem, 1999), which may threatens the native fish population through the competition for food and for space. This record adds an additional species to the fish checklist of the Syrian marine waters and confirms that human activates support the species introduction to the Mediterranean Sea (Ibrahim, 2009; Alshawy et al., 2019g, f). In addition, climatic changes make the seawaters feasible to accommodate the tropical species (Ibrahim et al., 2010; Alshawy et al., 2016; Alshawy et al., 2017). However, further investigations should be carried out

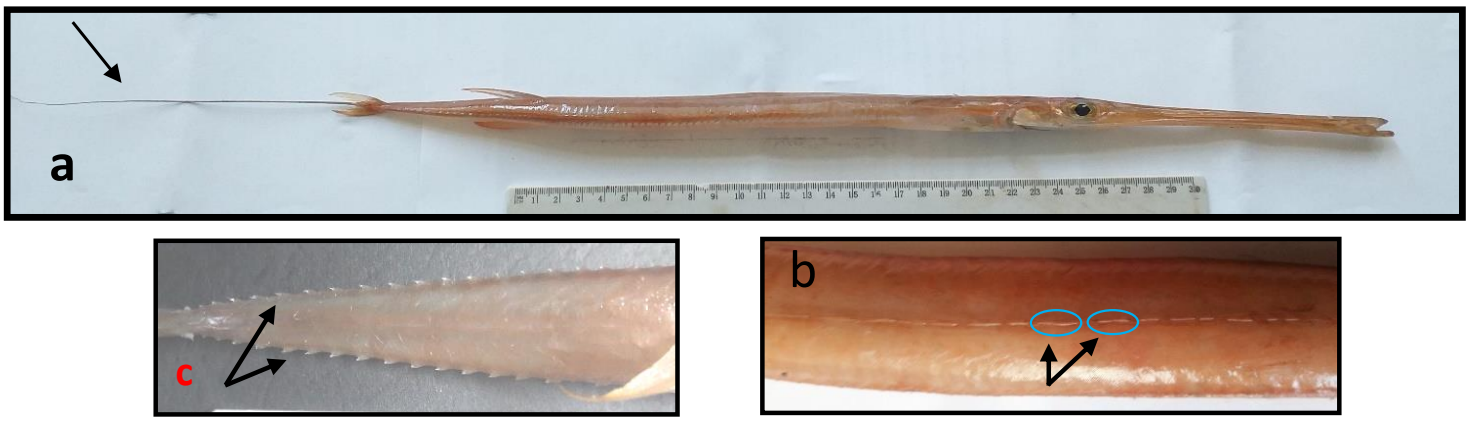

Figure 2. (a) *Fistularia petimba*, caught from the Syrian coast, (b) the bony plates along the dorsal sideand (c) Dorsal view showing the backward-pointing lateral spines.

to reveal the economic and environmental impacts of this fish on the native fish populations (UNEP-MAP RAC/SPA, 2009; Ibrahim et al., 2019). This necessitates the need for international and regional cooperation for fisheries management to ensure proper marine biodiversity conservation (Vallerga et al., 2003; Drago et al., 2004) and native fish stocks protection (Hussein et al., 2011a, b).

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