

Occurrence of the silky shark, *Carcharhinus falciformis* (Bibron, 1839) (Carcharhiniformes: Carcharhinidae), from Iskenderun Bay, northeast Levant Sea

İpeksi köpekbalığı, *Carcharhinus falciformis* (Bibron, 1839)'in (Carcharhiniformes: Carcharhinidae), İskenderun Körfezi sularında (Kuzeydoğu Levant Denizi) görülmesi

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Abstract: An immature male specimen of *Carcharhinus falciformis* (Bibron, 1839) was caught by a commercial long-liner off Samandağ coast (Iskenderun Bay, northeastern Levant Sea, Turkey), on 2nd of November, 2021. This record is the fourth observation of this species in Turkey. Monitoring the coastal occurrences of the silky shark throughout its distribution range is critical, where the species is considered as very rare.

Keywords: Record, Carcharhinidae, distribution, Turkey

Öz: *Carcharhinus falciformis*'in (Bibron, 1839) erişkin olmayan bir erkek örneği, 2 Kasım 2021'de Samandağ sahili açıklarında (Iskenderun Körfezi, kuzeydoğu Levant Denizi, Türkiye) ticari bir paraketa teknesi ile yakalandı. Bu kayıt, türün Türkiye'deki dördüncü gözlemidir. Türün çok nadir görüldüğü yerlerde, ipeksi köpekbalığının dağılım aralığı boyunca kıyı oluşumlarını izlemek çok önemlidir.

Anahtar kelimeler: Kayıt, Carcharhinidae, dağılım, Türkiye

INTRODUCTION

Carcharhinidae is one of the largest and most important families of sharks, with many common and wide-ranging species, represented by 12 genera and 57 species (Ebert and Stehmann, 2013). In the Mediterranean Sea, the family is represented by 4 genera and 11 species, one of which is *Carcharhinus falciformis* (Bibron, 1839) (Serena et al., 2020).

The silky shark, *C. falciformis*, is a large and fairly slender shark, occurring in oceanic and coastal waters, from the surface down to at least 500 m (Ebert and Stehmann, 2013). It is a circumtropical shark and its distribution range covers both western and eastern Atlantic, Indo-Pacific region and extends to the Mediterranean Sea (Bonfil and Abdallah, 2004; Ebert and Stehmann, 2013; Serena et al., 2020). Although, it was recorded in several localities in eastern Mediterranean waters (Azab et al., 2019; Kabasakal and Bilecenoğlu, 2020)

and western in the Ligurian Sea (Garibaldi and Orsi-Relini, 2012), its occurrence status in the region is considered as very rare (Bariche, 2012).

Following its first record in Turkish Mediterranean waters by Kabasakal and Bilecenoğlu (2020), several sightings of *C. falciformis* in northeastern Levant Sea were reported (personal observation by the first author); however, this encounters could have not been confirmed due to the lack of preserved specimens or reliable photographs documenting the capture of a silky shark.

In the present paper, authors report the regional occurrence of a specimen of *C. falciformis* in the southern part of Iskenderun, and provide supporting information for a better understanding of the distribution and status of the species in the mentioned region.

MATERIAL AND METHODS

The examined male specimen of *C. falciformis* was caught by a commercial long-liner, at a depth of 30 m, nearly 10 km off Samandağ coast (Figure 1), on 2nd of November, 2021. Species identification follows Serena (2005) and Ebert and Stehmann (2013), and taxonomic nomenclature follows Serena et al. (2020). Total length of the specimen was measured according to Serena (2005), where the total length is the distance between the tip of the snout and to the tip of the upper lobe of the caudal fin, depressed to body axis. Morphometric measurements were measured to the nearest centimetre, according to procedure proposed by Ebert and Stehmann (2013). Preserved specimen is being kept in the ichthyological collections of Iskenderun Technical University Marine Sciences and Technology Faculty, with the following registration number: (MSM-PIS-2021-2; Figure 2).

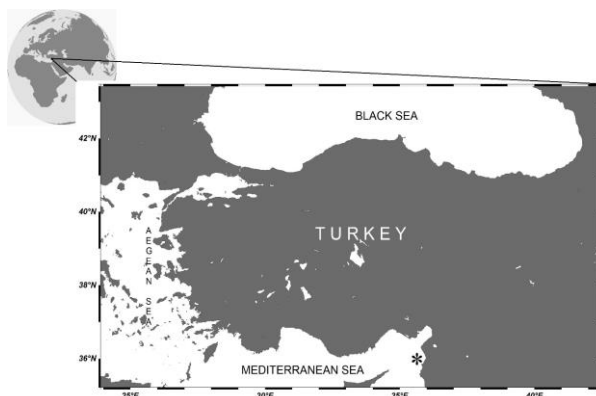


Figure 1. Map shows the approximate locality (*) of capture of the present silky shark in northeastern Levant Sea

RESULTS

Total length (TL) of the present specimen of *C. falciformis* (Figure 2) was 103 cm and the weight was 7638 g. Some morphometric measurements are presented in Table 1, which are all in accordance with previous descriptions of Ebert and Stehmann (2013).

Coloration of the examined specimen was dark grey above and white below, with narrow dark blotches on tips of pectoral fins, and upper and lower caudal lobes (Figure 2). The observed descriptive characteristics were in agreement with those described by Ebert and Stehmann (2013). Thus, the present specimen was identified as *C. falciformis*.



Figure 2. (A) Side view of the silky shark, *Carcharhinus falciformis*; (B) arrow denotes the interdorsal ridge; (C) arrow denotes the free rear tip of second dorsal fin; and (D) uncalcified and soft claspers of the specimen

Table 1. Morphometric measurements of the examined specimen of *C. falciformis*

Measurement	cm	% of TL
Total length (TL)	103	100
Standard length	75	72
Head length	23	22.3
Mouth length	10	9.7
Snout length	3.5	3.4
Eye length	1.6	1.55
Eye height	1	0.9
Pre-branchial length	21	20.38
Pre-orbital length	7.5	7.2
Pre-D1 fin length	35	34
Pre-D2 fin length	85	82.5
Pre-pectoral fin length	24	23.3
Pre-D1 to anal fin length	51	49.5
Pre-D2 to anal fin length	86	83.4
D1 fin length	13	12.6
D1 fin height	9.5	9.2
D2 fin length	7	6.8
D2 fin height	1.4	1.35
D2 fin free rear tip length	4	3.8
Pectoral fin length	15.5	15
Ventral fin length	8	7.7
Anal fin length	7.5	7.2
Caudal upper lobe length	29.5	28.6
Caudal lower lobe length	13	12.6
Clasper length	3	2.9

DISCUSSION

Kabasakal and Bilecenoğlu (2020) recorded 3 specimens of *C. falciformis* off Turkish Mediterranean coasts, 1 in the Gulf of Antalya and 2 specimens off the eastern coast of Gulf of Mersin. We are presenting hereby the fourth record of the species from Turkey, which supports the existence of an established population in the region. According to Ebert and Stehmann (2013), males of *C. falciformis* mature at about 210 and 220 cm. Claspers of the examined silky shark were uncalcified, soft and shorter than the pelvic fins (Figure 2D). Thus, the present specimen was an immature male.

Besides the silky shark, several other Carcharhinid species have been previously encountered through the northern Levant coasts of Turkey (Ayas et al., 2019, 2020;

Ergüden et al., 2020; Kabasakal and Bilecenoğlu, 2020; Kabasakal et al., 2021).

Based on the recent IUCN Red List assessment (Rigby et al., 2017), conservation status of *C. falciformis* is considered 'Vulnerable' globally, with a decreasing population trend. Therefore, monitoring the coastal occurrences of the silky shark throughout its distribution range is critical, where the species is considered as 'very rare' (Bariche, 2012; Azab et al., 2019).

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