

ANNALES

Anali za istrske in mediteranske študije
Annali di Studi istriani e mediterraneei
Annals for Istrian and Mediterranean Studies
Series Historia Naturalis, 25, 2015, 1



ISSN 1408-533X

UDK 5

Letnik 25, leto 2015, številka 1

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Izdajatelj/Editore/Published by:	Zgodovinsko društvo za južno Primorsko - Koper / Società storica del Litorale - Capodistria©
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Redakcija te številke je bila zaključena 30. 06. 2015.

Sofinancirajo/Supporto finanziario/ Financially supported by:	Javna agencija za raziskovalno dejavnost Republike Slovenije (ARRS)
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Annales - series historia naturalis izhaja dvakrat letno.

Naklada/Tiratura/Circulation:	300 izvodov/copie/copies
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Revija *Annales series historia naturalis* je vključena v naslednje podatkovne baze: BIOSIS-Zoological Record (UK); Aquatic Sciences and Fisheries Abstracts (ASFA); Elsevier B.V.: SCOPUS (NL).

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Short scientific article
Received: 2014-11-26

UDK 597.311.212(262.4)

RECENT RECORD OF THE GREAT WHITE SHARK, *CARCHARODON CARCHARIAS* (LINNAEUS, 1758), FROM CENTRAL AEGEAN SEA OFF TURKEY'S COAST

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ABSTRACT

On 19 September 2014, a great white shark was incidentally caught by a stationary net set off Yeni Foça (38° 46' 40" N, 26° 53' 40" E), which was deployed for lobster fishing. The great white shark measured approximately 200 cm and weighed 40 kg. It was a juvenile male with uncalcified claspers, which were shorter than the pelvic fins.

Key words: Great white shark, occurrence, eastern Mediterranean, juvenile, by-catch

RECENTI SEGNALAZIONI DEL GRANDE SQUALO BIANCO, *CARCHARODON CARCHARIAS* (LINNAEUS, 1758), NELL'EGEO CENTRALE AL LARGO DELLE COSTE DELLA TURCHIA

SINTESI

Il 19 settembre 2014 un grande squalo bianco è stato catturato accidentalmente da una rete da posta, utilizzata per la pesca dell'aragosta, al largo di Yeni Foça (38° 46' 40" N, 26° 53' 40" E). L'esemplare era lungo circa 200 cm e pesava 40 kg. Si trattava di un giovane maschio con i clasper (o pterigopodi) non calcificati e più corti delle pinne pelviche.

Parole chiave: grande squalo bianco, presenza, Mediterraneo orientale, stadio giovanile, catture accessorie

INTRODUCTION

The great white shark, *Carcharodon carcharias* (Linnaeus, 1758), has always been a point of human attraction since antiquity and a subject of research; therefore, significant data on the occurrence of the species has been collecting throughout the Mediterranean, of which the vast majority of data represents the specimens recorded in western and central parts of the basin.

In a recent inventory study, De Maddalena & Heim (2012) gave details of 596 records of *C. carcharias* from the entire Mediterranean and adjacent waters. Although some 20th century authors have reported on the presence of *C. carcharias* in Turkey's waters (Ninni, 1923; Deveciyan, 1926), a remarkable lack of knowledge has dominated the story of the great white shark in Turkey's seas for almost the entire 20th century. In a recent study, Kabasakal (2014) reported on the status of the great white shark in Turkey's waters. Based on available literature, the author provided up to date data on the historical and contemporary occurrence of 46 specimens of *C. carcharias*, which were either sighted or caught in Turkey's seas between 1881 and 2011.

Since the distributional map of this vulnerable shark in eastern Mediterranean has remarkable gaps, every

record of the great white shark from the region, both in historical and contemporary perspectives, is a significant contribution to the understanding on different biological and ecological aspects of the species in the eastern Mediterranean. In the present article, the authors report on a recent record of *C. carcharias* off Turkey's coast of central Aegean Sea.

MATERIAL AND METHODS

On 19 September 2014, a great white shark (Fig. 1) was incidentally caught by a stationary net set off Yeni Foça (38°46'40" N, 26°53'40" E), which was deployed for lobster fishing. Total length of the great white shark was approximately 200 cm and weight was 40 kg. It was a juvenile male with uncalcified claspers, which were shorter than the pelvic fins. The photograph of the present specimen is kept in the archives of the Ichthyological Research Society.

RESULTS AND DISCUSSION

Species identification is based on the following descriptive characters (Bigelow & Schroeder, 1948): strong keels on both sides of caudal peduncle, strong and conical snout, triangular upper and lower teeth with regularly serrated edges, gill slits long but not encircling the head, upper and lower caudal lobe almost equal in length.

The occurrence of the great white shark in Turkey's Aegean waters date back to the mid-16th century (Belon, 1553). Although, Petri Belloni reported on the capture of a great white shark in waters off Izmir, a city on the Aegean seaboard of Turkey, with a short description of the specimen, its presence in the mentioned area has always been subject to debate, due to the lack of records from the region until the late 20th century (Kabasakal, 2014). Before the present record on a juvenile male, 13 specimens of *C. carcharias* were recorded off Turkey's coast of Aegean Sea, between 1991 and 2011 (Kabasakal, 2014). Eight of them were neonates and juveniles. Since 2008, 6 neonate great white sharks were incidentally captured in the waters of Edremit Bay (NE Aegean Sea), as well as 2 juveniles, which were entangled in commercial fishing gears in the vicinity of bay waters (Kabasakal, 2014). Based on the records of neonates and juveniles in the investigated region, the author suggested the area of Edremit Bay to be a possible nursery and breeding ground of *C. carcharias*. Thus, the recent capture of the juvenile great white shark in close vicinity to bay waters, provides new evidence supporting the presence of this suggested nursery ground.

Therefore, a monitoring program is required in order to figure out the seasonality of occurrences of neonates and juveniles in the studied region. At the very same time, the approximate borders of the nursery area should be defined. Since small scale coastal fishery continues all year round in Turkey's territorial waters, the proposed



Fig. 1: Great white shark, *Carcharodon carcharias*, caught off Yeni Foça on 19 September 2014. Characteristic triangular teeth are seen on the upper jaw. (Photo: Ceyhun Gamze Ekinci, SAD)

Sl. 1: Beli morski volk, *Carcharodon carcharias*, ujet 19. septembra 2014 v vodah pri Yeni Foça. Značilni trikotni zobje so vidni v zgornji čeljusti. (Foto: Ceyhun Gamze Ekinci, SAD)

monitoring program is of critical importance to set regulations, such as banning coastal netting or long-lining inside the borders of this suggested nursery ground.

ACKNOWLEDGMENTS

The authors wish to thank Mrs. Ceyhun Gamze Ekinici, an active member of Sualti Arařtirmalari Derneđi

(SAD, Underwater Research Foundation), who kindly and rapidly informed us of the capture of the present great white shark and sent the photograph of the specimen. Mr. Mark Taylor, scuba diving instructor and underwater photographer, kindly revised the English of the manuscript. We are also grateful to two anonymous referees for their valuable comments to improve the content of the paper.

NOVEJŠI ZAPIS O POJAVLJANJU VELIKEGA BELEGA VOLKA,
CARCHARODON CARCHARIAS (LINNAEUS, 1758), IZ OSREDNJEGA EGEJSKEGA
MORJA OB TURŠKI OBALI

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POVZETEK

Devetnajstega septembra 2014 je bil v stacionarno ribiško mrežo, ki se uporablja za lov jastogov, ujet primerek belega morskega volka v vodah ob Yeni Foça (38° 46' 40" N, 26° 53' 40" E). Beli morski volk je meril v dolžino približno 200 cm in tehtal 40 kg. Sodeč po nepoapnelih klasperjih, ki so bili krajši od trebušnih plavuti, je šlo za mladega samca.

Ključne besede: beli morski volk, pojavljanje, vzhodno Sredozemlje, mladostni primerek, prilov

REFERENCES

Belon, P. (1553): Petri Bellonii Cenomani De aquatilibus, libri duo cum conibus ad viam ipsorum effigiem, quoad eius fieri potuit, expressis. Apud C. Stephanum, Parisiis, 448 p.

Bigelow, H. B. & W. C. Schroeder (1948): Sharks. In: Fishes of the Western North Atlantic. Part one: Lancelets, Cyclostomes, Sharks. Memoir Sears Foundation for Marine Research, Yale University, pp. 53-576.

De Maddalena, A. & W. Heim (2012): Mediterranean Great White Sharks. A Comprehensive Study Including All Recorded Sightings. McFarland, Jefferson, 254 p.

Deveciyan, K. (1926): Pêche et Pêcheries en Turquie: Imprimerie de l'Administration de la Dette Publique Ottomane, Istanbul, 480 p.

Kabasakal, H. (2014): The status of the great white shark (*Carcharodon carcharias*) in Turkey's waters. Marine Biodiversity Records, 7, e109. doi:10.1017/S1755267214000980

Ninni, E. (1923): Primo Contributo allo Studio dei Pesci e della Pesca nelle Acque dell'Impero Ottomano. Premiate Officine Grafiche Carlo Ferrari, Venice, 187 p.