

ON THE OCCURRENCE OF THE GREAT WHITE SHARK (*CARCHARODON CARCHARIAS*) IN TUNISIAN COASTS

Mohamed Nejmeddine Bradai ^{1*} and Bechir Saidi ¹
¹ INSTM, Tunisie - mednejmeddine.bradai@instm.nrnt.tn

Abstract

Data concerning the presence of *Carcharodon carcharias* along the Tunisian coasts is presented. The capture by fishing gear, seasonality and population structure of the species in the area are analyzed and discussed based on 59 captures.

Keywords: Elasmobranchii, Fisheries, Tunisian Plateau

Introduction

Although the great white shark, *Carcharodon carcharias*, has never been the subject of specific studies along the Tunisian coasts, its presence in these waters has been known for a long time [1]. This paper presents the occurrence of the white shark off Tunisian coasts and contributes to the knowledge of its population in the Mediterranean Sea.

Materials and methods

Data on white sharks from the Tunisian coasts were performed by bibliographical researches and on our observations undertaken since 1992. For each case, whenever possible, the following data were collected: date and location of the record, total length (TL) in cm, mass in kg, sex, fishing method and depth.

Results and discussion

A total of 59 reliable captures of white sharks were reported along the Tunisian coasts from 1953 to 2012, most of them (57%) were registered after 2000. Sex and total length were reported for only 44 specimens, 24 females and 20 males. The total length of females and males ranged, respectively from 145 to 605 cm and from 165 to 485 cm. Length-frequency distribution showed that 48.78% were neonates and juveniles smaller than 200 cm TL (Fig.1). Four males and 11 females were adults of which two were pregnant. Captures were concentrated in the Gulf of Gabès (56%), where white shark was caught mainly by trawl and purse seine. Trawls capture only neonates and juveniles (TL<241 cm) during winter and spring with a peak in February while purse seine caught mainly adults through December to July (Fig.2). In the north coasts, 21 records were reported, most of them (76%) were in tuna trap which disappeared since 2004. Tuna trap captured mainly adult individuals between Mars and April (Fig.2). Some seasonal differences in the spatio-temporal occurrence of the species can be observed; along the northern and central Tunisian coasts, adult white sharks are in pursuit of tuna and migratory fish in spring and summer while juveniles are concentrated during winter in the Gulf of Gabès where temperatures are relatively higher. The occurrence of neonates, small juveniles and pregnant females shows that the Tunisian waters and mainly the Gulf of Gabès is a nursery for this species. Previous suggestion considers also Sicilian Channel and its adjoining environs as reproductive and nursery areas for the species [2; 3].

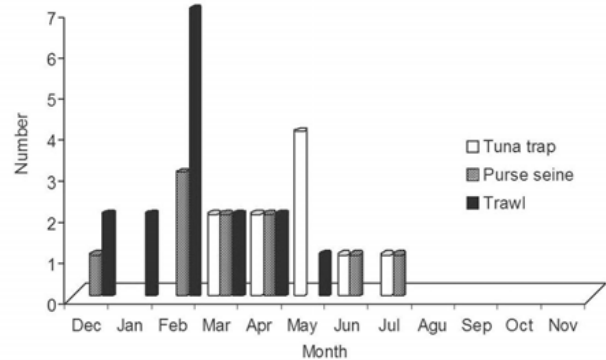


Fig. 2. Monthly accidental capture of White shark by fishing gear types

References

- 1- Fergusson, I. K. (1996): Distribution and Autecology of the White Shark in the Eastern North Atlantic Ocean and the Mediterranean Sea. In Klimley, A. P. & Ainlèy, D. G. (eds.) : Great White Sharks: The Biofogy of *Carcharodon carcharias*. San Diego, Academie Press, 321-345.
- 2- Saidi, B., Bradai, M.N., Bouaïn, A., Guélorget, O. & Capapé, C. 2005. Capture of a pregnant female white shark, *Carcharodon carcharias* (Lamnidae) in the Gulf of Gabès (Southern Tunisia, central Mediterranean) with comments on oophagy in sharks. *Cybius*, 29: 303-307.
- 3- Fergusson, I.K. 2002. Occurrence and biology of the great white shark, *Carcharodon carcharias*, in the Central Mediterranean Sea: A review. pp. 7-30. In: M. Vacchi, G. La Mesa, F. Serena & B. Seret (ed.) Proceedings of the 4th European Elasmobranch Association Meeting, Livorno (Italy), 2000. ICRAM, ARPAT & SFI.

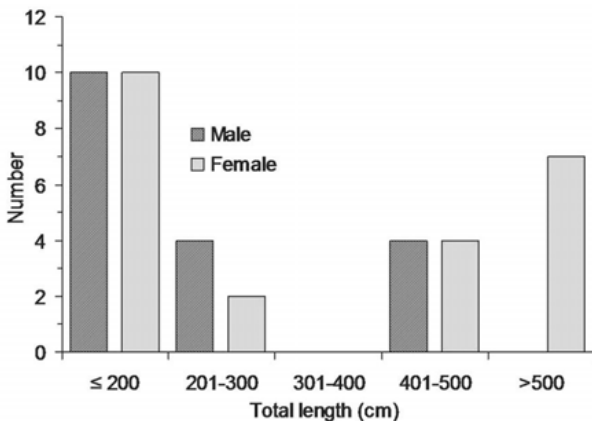


Fig. 1. Size distribution of White shark off Tunisian coasts