original scientific paper
received: 8. 1. 2002

UDC 597.3(262-11)

CAPTURE OF A FEMALE BASKING SHARK, *CETORHINUS MAXIMUS* (GUNNERUS, 1765), FROM SOUTHERN TURKEY

Hakan KABASAKAL
Ichthyological Research Society, Atatürk mahallesi, Menteşoğlu caddesi,
İdil apt., No 30, D 4, TR-Ümraniye 81230 Istanbul
E-mail: hakankabasakal@hotmail.com

ABSTRACT

On December 2001, a subadult female basking shark (Cetorhinus maximus) *was accidentally captured in a gill-net set for the bonito only 100 metres off the shore in the Gulf of Antalya (southern Turkey). This is the second confirmed record of this shark from the seas of Turkey.*

Key words: basking shark, *Cetorhinus maximus*, Turkish seas, gill-net fishery

CATTURA DI UNA FEMMINA DI SQUALO ELEFANTE *CETORHINUS MAXIMUS* (GUNNERUS, 1765) NELLA TURCHIA MERIDIONALE

SINTESI

Nel dicembre 2001 una femmina subadulta di squalo elefante (Cetorhinus maximus) *è stata catturata accidentalmente in un tramaglio per scombridi, ad appena 100 metri dalla riva nel Golfo di Antalya (Turchia meridionale). La cattura dell'esemplare risulta essere il secondo avvistamento confermato per tale specie nei mari della Turchia.*

Parole chiave: squalo elefante, *Cetorhinus maximus*, mari della Turchia, pesca con tramaglio

INTRODUCTION

Basking shark, *Cetorhinus maximus* (Gunnerus, 1765), is the largest of all Mediterranean sharks (Quéro, 1984). Most basking sharks are under 9 m in length, but some may grow to 15 m (Compagno, 1984). It is a typical planktivorous shark and its seasonal and regional occurrence is well correlated with zooplankton density (Sims *et al.*, 1997). Although local records of the basking sharks throughout the Mediterranean Sea are well documented (see, for example, Lipej *et al.*, 2000 in Adriatic Sea; Najai, 1980 in Tunisian waters; Podesta & Magnaghi, 1988 in Italian waters), there is almost no information available concerning its presence along the coast of Turkey. The only previous local record of the basking shark is from Gulf of Iskenderun (eastern Mediterranean coast of Turkey) (Kıdeyş, 1997). Therefore, it is not clear whether the occurrence of the basking shark in the seas of Turkey is incidental or exhibits a seasonal regularity.

In ecological terms, the basking shark is considered a typical *'k-selected species'* because of its slow rates of growth, attaining the first maturity at a very late age and giving birth in very small numbers. Parker & Stott (1965) suggest a 3.5 years gestation period for the basking shark. It is therefore one of the shark species most vulnerable to over-fishing and today it is one of the threatened species of elasmobranchs mentioned in the *IUCN Red List of Threatened Animals* (Fowler, 1996). Due to the above reasons, local populations of basking sharks should be monitored carefully.

The present paper aims to make a contribution to the knowledge of sharks occurring in the seas of Turkey.

MATERIAL AND METHODS

A female basking shark has been accidentally captured on December 2001 in a gill-net set for bonito only 100 m off the shore (depth nearly 7 m) in the Gulf of Antalya (36°32'01'', N 30°31'02'' E; Fig. 1). Body measurements were taken with a hand meter following the guidelines by Compagno (1984). Unfortunately, the shark has been immediately sold at the fish market and therefore it was not possible to examine the internal organs of the specimen.

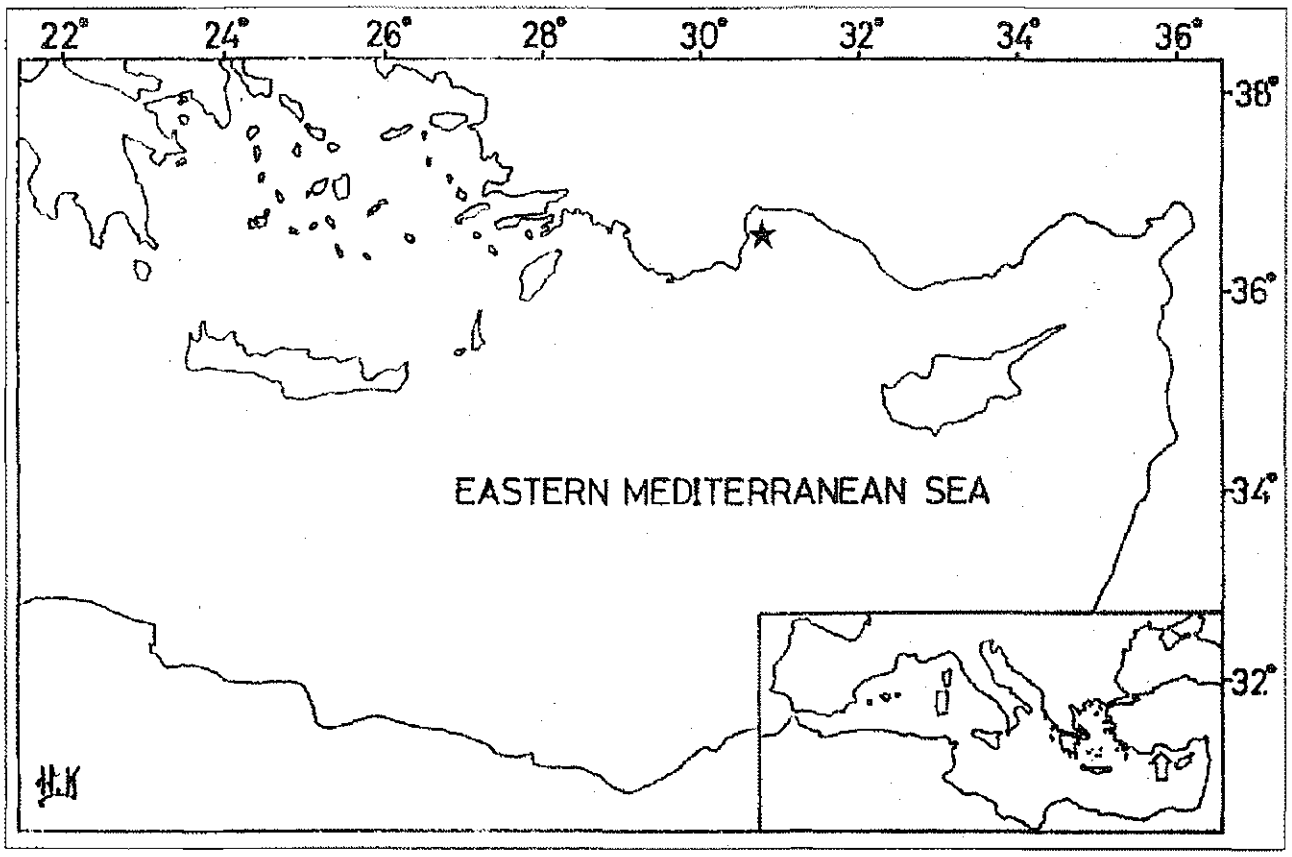

Fig. 1: Location of the sampling site (★) in the Gulf of Antalya.
Sl. 1: Lokacija vzorčišča (★) v Antalijskem zalivu.

Tab. 1: Body measurements of the female basking shark** (Cetorhinus maximus), **accidentally captured in the Gulf of Antalya.
Tab. 1: Mere samice morskega psa orjaka** (Cetorhinus maximus), **naključno ujete v Antalijskem zalivu.

Measurement	cm	% of TL
Total length	600	-
Girth in front of the 1st dorsal fin	205	34.16
Length of the 1st dorsal fin	98	16.33
Length of the 2nd dorsal fin	60	10
Distance between the 1st dorsal and pelvic fins	97	16.16
Dorsal caudal margin	145	24.16
Ventral caudal margin	90	15
Preorbital length	45	7.5

RESULTS AND DISCUSSION

This specimen of the basking shark entangled in a gill-net in the Gulf of Antalya is the second confirmed recording of this species from the seas of Turkey. Body measurements of the specimen are given in Table 1.

Basking sharks are known to become mature when reaching the length between 8.1 and 9.8 m (Compagno, 1984). Therefore, it could be assumed that the female basking shark (6 m TL) captured in the Gulf of Antalya is a subadult individual.

Although Parker & Boeseman (1954; *sensu* Sims *et al.*, 1997) proposed that basking sharks migrate from coastal to deep waters in September and October, no information is available to explain the reasons for the winter occurrence of this female basking shark in the shallow coastal waters. However, migrations of the basking sharks in the seas of Turkey, particularly in the coastal waters where an intensive gill-net fishery is carried out, should be determined in detail for reducing the possible impacts of by-catching on this vulnerable shark.

SAMICA MORSKEGA PSA ORJAKA *CETORHINUS MAXIMUS* (GUNNERUS, 1765), UJETA V VODAH JUŽNE TURČIJE

Hakan KABASAKAL
Ichthyological Research Society, Atatürk mahallesi, Menteşoğlu caddesi,
İdil apt., No 30, D 4, TR-Ümraniye 81230 Istanbul
E-mail: hakankabasakal@hotmail.com

POVZETEK

Decembra leta 2001 se je v stoječo mrežo palamidarico, postavljeno 100 m od obrežja v Antalijskem zalivu (južna Turčija), ujela samica morskega psa orjaka (Cetorhinus maximus). *To je drugi potrjeni zapis morskega psa orjaka iz turških voda. Glede na njeno celotno dolžino (6 m) gre bržkone za skoraj odrasel osebek. Avtor meni, da bi bilo nujno skrbno spremljanje morskega psa orjaka v turških vodah, da bi se zmanjšal vpliv v mreže naključno ujetih osebkov na tega ranljivega morskega psa.*

Ključne besede: morski pes orjak, *Cetorhinus maximus*, turške vode, ribolov s stoječimi mrežami

REFERENCES

Compagno, L. J. V. (1984): FAO Species Catalogue. Vol. 4: Sharks of the world. An annotated and illustrated Catalogue of Shark Species Known to Date. Part 1. Hexanchiformes to Lamniformes. Rome, 249 pp.

Fowler, S. (1996): Red List assessments for sharks and rays. Shark News, 8, 4-5.

Kıdeyş, A. E. (1997): Occurrence of the basking shark, *Cetorhinus maximus* in the northern Levantine, the eastern Mediterranean. The International Mediterranean Fisheries Congress, University of Ege, Faculty of Fisheries, Izmir, Book of Abstracts, p. 120.

Lipej, L., T. Makovec, M. Orlando & V. Žiža (2000): Occurrence of the basking shark, *Cetorhinus maximus* (Gunnerus, 1765), in the waters off Piran (Gulf of Trieste, Northern Adriatic). Annales Ser. hist. nat. 10, 2(21), 211-216.

Najai, S. (1980): Note sur la présence de deux requins pélerins dans le golfe de Tunis. Bull. Inst. nat. scient. tech. Océanogr. Pêche Salammbô, 7, 151-152.

Parker, H. W. & M. Boeseman (1954): The basking shark *(Cetorhinus maximus)* in winter. Proceedings of the Zoological Society of London, 124, 185-194.

Parker, H. W. & F. C. Stott (1965): Age, size and vertebral calcification in the basking shark, *Cetorhinus maximus* (Gunnerus). Zoologische Mededelingen, 40(34), 305-319.

Podestà, M. & L. Magnaghi (1988): Cattura di un *Cetorhinus maximus* (Gunner, 1765) nel mar Ligure. Atti Soc. ital. Sci. nat. Museo civ. Stor. nat. Milano, 129(4), 453-458.

Quéro, J. -C. (1984): Cetorhinidae. In: Whitehead, P. J. P., M. -L. Bauchot, J. -C. Hureau, J. Nielsen & E. Tortonese (eds.): Fishes of the North-eastern Atlantic and the Mediterranean. Vol. I, UNESCO, Paris, 89-90.

Sims, D. W., A. M. Fox & D. A. Merrett (1997): Basking shark occurrence off south-west England in relation to zooplankton abundance. Journal of Fish Biology, 51, 436-440.