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FIRST RECORD OF A TIGER SHARK *GALEOCERDO CUVIER* (PERON & LESUEUR, 1822) IN THE ITALIAN WATERS

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ABSTRACT

The article deals with the only capture of a tiger shark in the Italian waters ever. As far as the Mediterranean is concerned, this is only the second record of this species, the first one being the specimen caught off Malaga in 1991. The Italian specimen was accidentally caught with a drift-net (locally called "palamitara") used to catch the swordfish. According to the information provided by the fisherman, the tiger shark weighed about 170 kg and was about 3 metres long.

Key words: tiger shark, *Galeocerdo cuvier*, occurrence, Italy, Mediterranean Sea

PRIMA SEGNALAZIONE DELLO SQUALO TIGRE *GALEOCERDO CUVIER* (PERON & LESUEUR, 1822) IN ACQUE ITALIANE

SINTESI

Nell'articolo vengono forniti i dati inerenti l'unica cattura dello squalo tigre in acque italiane, che corrisponde alla seconda segnalazione di questa specie nel Mediterraneo (la prima risale al 1991, nelle acque al largo di Malaga). L'esemplare in questione è stato accidentalmente catturato con la "palamitara", rete usata per la pesca dei pesci spada. In base alle informazioni fornite dal pescatore, l'esemplare di squalo tigre era lungo sui 3 metri e pesava circa 170 kg.

Parole chiave: squalo tigre, *Galeocerdo cuvier*, ritrovamento, Italia, mare Mediterraneo

INTRODUCTION

The tiger shark *Galeocerdo cuvier* (Peron & LeSueur, 1822) (Fig. 1) is a cosmopolitan species typical of tropical and temperate sea waters, living in the Atlantic, Indian and Pacific oceans and the Red Sea (Fisher, 1978; Fisher & Bianchi, 1984; Compagno, 1984; Stevens & Pyrzakowski, 1988). Its presence is uncertain in the Mediterranean basin (Notarbartolo di Sciarra & Bianchi, 1998) and never documented prior to 1991, when a four metre specimen had been captured in the Spanish waters off Malaga. This shark's jaw is still kept in the town's "Aula del Mar" Museum (Pinto de la Rosa, 1994).

MATERIALS AND METHODS

During the study of the sharks captured during the last decades in the Straits of Messina (E Sicily, Italy), it was possible to recover and to study the jaw of a tiger shark *Galeocerdo cuvier* caught in July 1998 in the coastal waters off Messina (Maregrosso) by Mr. Rosario Bonaffini who still keeps the jaw at his home. The jaw is the only preserved and still available part of this shark, as it was sold immediately after its capture (Fig. 3). The measurements were made on the first three teeth of each jaw according to parameters of Mollet *et al.* (1996), including Randall's ones (1973) and already used for *Carcharodon carcharias* but also valid for other selachians (Fig. 2).

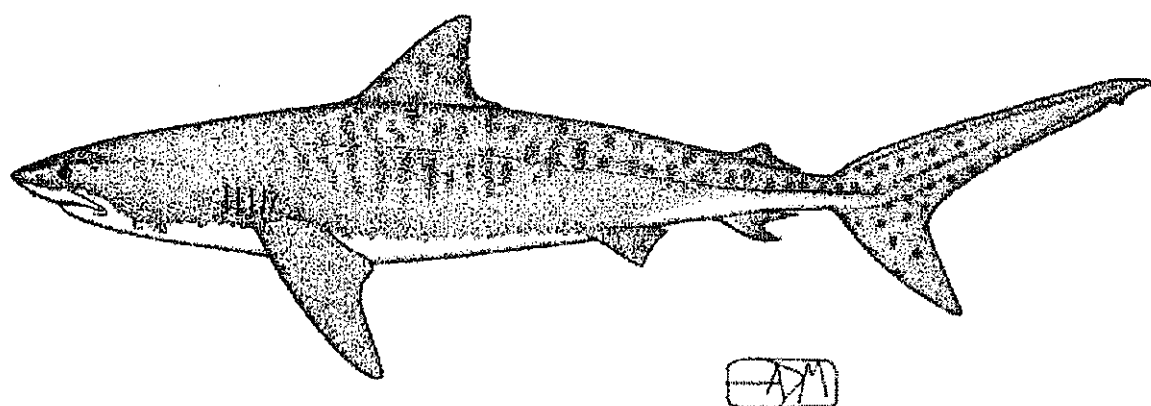


Fig. 1: Tiger shark *Galeocerdo cuvier* (Drawing by A. De Maddalena).
Sl. 1: Morski tiger *Galeocerdo cuvier* (Risba: A. De Maddalena).

RESULTS AND DISCUSSION

The specimen was accidentally caught with a drift-net (locally called "palamitara") used to catch the swordfish. Information provided by the fisherman are fragmentary: the declared weight of the shark (that happened to be, according to the fisherman, a female) was about 170 kg, its length about 3 metres. The measurements of the teeth are as follows (Tab. 1):

Tab. 1: Tiger shark's teeth measurements (in cm). See figure 2 for explanation.

Tab. 1: Dolžine zob morskega tigra (v cm). Kratice parametrov se nanašajo na mere na sliki 2.

Parameter	1st tooth	2nd tooth	3rd tooth
UAE1	1.4	1.7	1.9
UAE2	1.6	1.9	2.0
UAEW	2.3	2.4	2.6
UAH	2.4	2.6	2.7
UAW	2.5	2.7	2.8

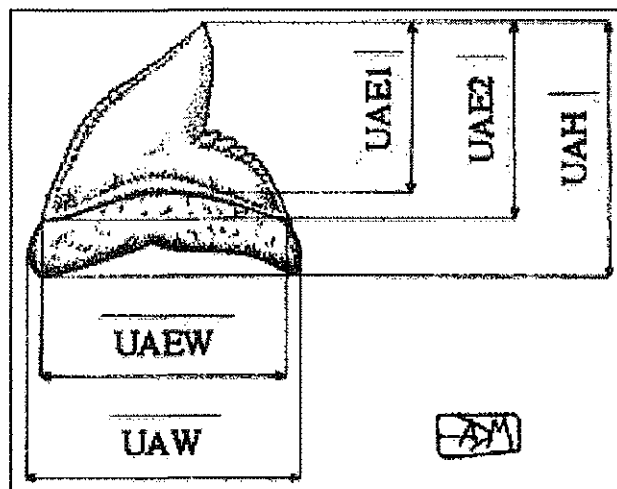


Fig. 2: The measurements on the first three teeth of each jaw according to parameters of Mollet *et al.* (1996) (Drawing by A. De Maddalena).

Sl. 2: Opravljene meritve na prvih treh zobeh v obeh čeljustnicah po referenčnih priporočilih (Mollet *et al.*, 1996) (Risba: A. De Maddalena).

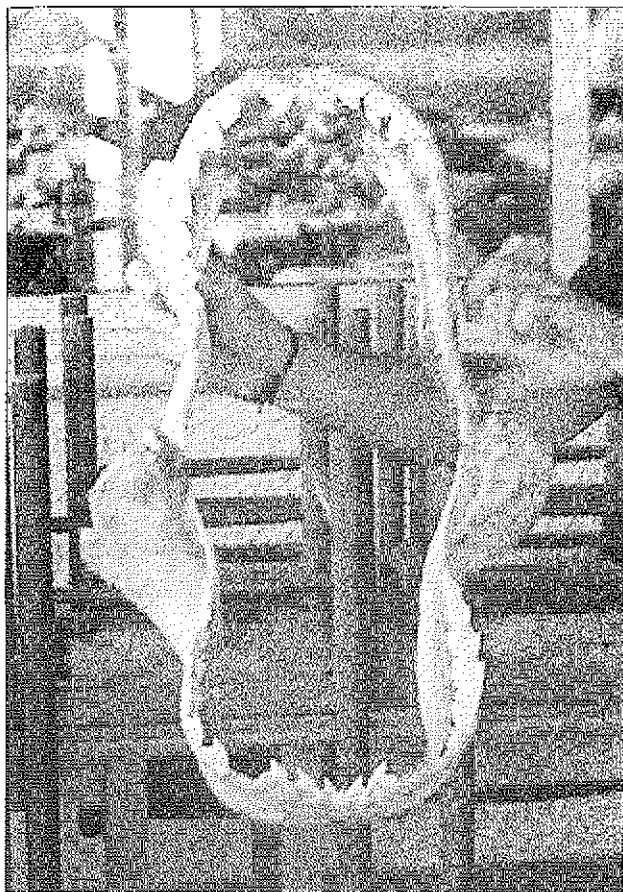


Fig. 3: The jaw of a tiger shark Galeocerdo cuvier caught in July 1998 in the coastal waters off Messina (Photo: A. Celona).

Sl. 3: Čeljusti morskega tigra (Galeocerdo cuvier), ujetega julija 1998 v obalnih vodah južno od Messine (Foto: A. Celona).

The above report concerns the only capture of the tiger shark species in the Italian waters ever and only the second record of this particular species in the Mediterranean after the one caught off Malaga in 1991 (Pinto de la Rosa, 1994).

The true reason for the presence of this species in the Mediterranean Sea is still unknown.

One of the hypotheses is that the specimen has voluntarily entered the Mediterranean through the Suez Canal or the Straits of Gibraltar, as has already been the case with many other extra-Mediterranean species in the last thirty years (the phenomenon known as "tropicalisation" of the Mediterranean) due to the general heating of the seas. The species should therefore be carefully monitored owing to the impact it might have on the highest levels of the alimentary chain in this basin.

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PRVI ZAPIS O POJAVLJANJU MORSKEGA TIGRA, *GALEOCERDO CUVIER*
(PERON & LESUEUR, 1822) V ITALIJANSKIH VODAH

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POVZETEK

Avtor obravnava prvo pojavljanje morskega tigra *Galeocerdo cuvier* v italijanskih vodah. Morski tiger je bil ujet julija 1998 v obalnih vodah južno od Messine (Maregrossa), in sicer v posebno mrežo za mečarice (*Xiphias gladius*), ki ji domačini pravijo "palamitara". Po nepopolnih podatkih ribiča naj bi morski tiger meril okoli 3 metre in tehtal približno 170 kg. Ribič ga je prodal na ribjem trgu, sam pa zase zadržal preparat njegovega žrela. Avtor si je žrelo natančno ogledal in na njem opravil morfometrične meritve. Gre za prvi podatek o pojavljanju morskega tigra v italijanskih vodah in sploh sele za drugi podatek o tej vrsti v Sredozemskem morju. Prvič so ga ujeli v vodah blizu Malage v južni Španiji. Avtor si zastavlja vprašanje, ali je pojavljanje morskega psa te vrste morda treba vnovič pripisati tako imenovanemu procesu "tropikalizacije", ko so se v zadnjih tridesetih letih zaradi temperaturnih sprememb v Sredozemskem morju pojavile mnoge tropske vrste rib.

Ključne besede: morski tiger, *Galeocerdo cuvier*, pojavljanje, Italija, Sredozemsko morje

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