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ON A LARGE SHORTFIN MAKO SHARK *ISURUS OXYRINCHUS* (LAMNIDAE) OBSERVED AT PANTELLERIA (CENTRAL MEDITERRANEAN SEA)

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ABSTRACT

A large female shortfin mako shark, Isurus oxyrinchus Rafinesque, 1810, was observed on 7 October 2022 near Pantelleria, in the Strait of Sicily, Italy. The total length was carefully estimated at 350-370 cm based on a comparison with a 690 cm boat. This specimen is one of the largest I. oxyrinchus photographed and filmed alive in the Mediterranean waters.

Key words: shortfin mako shark, *Isurus oxyrinchus*, Pantelleria, Italy, Mediterranean Sea

IN MERITO A UN GRANDE SQUALO MAKO DALLE PINNE CORTE *ISURUS* *OXYRINCHUS* (CHONDRICHTHYES: LAMNIDAE) OSSERVATO A PANTELLERIA, ITALIA

SINTESI

Un'enorme femmina di squalo mako dalle pinne corte Isurus oxyrinchus Rafinesque, 1810, è stato osservato nei pressi di Pantelleria, nel Canale di Sicilia, in Italia, il 7 ottobre 2022. La lunghezza totale dell'esemplare è stata stimata con accuratezza tra 350 e 370 cm sulla base delle dimensioni dell'imbarcazione di 690 cm. Tale esemplare è uno dei più grandi della sua specie fotografati e filmati vivi in acque mediterranee.

Parole chiave: squalo mako dalle pinne corte, *Isurus oxyrinchus*, Pantelleria, Italia, mare Mediterraneo

INTRODUCTION

The shortfin mako *Isurus oxyrinchus*, Rafinesque, 1810, inhabits temperate and tropical waters of the Atlantic, Pacific and Indian Oceans. It is pelagic, coastal and oceanic, occurring at a depth range from 0 to 500 m (Compagno, 2001). The shortfin mako is present in the entire Mediterranean (De Maddalena & Baensch, 2005), where it is caught mainly by tuna longline fisheries and occasionally by swordfish fisheries using longlines and driftnets (Celona *et al.*, 2004; Megalofonou *et al.*, 2005). Although the majority of shortfin mako catches are recorded in pelagic fisheries, in a recent report, Kabasakal (2015) emphasized that new-born and juvenile specimens of *I. oxyrinchus* can be incidentally caught by coastal stationary netting and bottom longline fishing, as well. Data on the presence of the species in the Strait of Sicily has also been reported in recent years by Rafrafi-Nouira *et al.* (2019).

In the present article we report a record of a large shortfin mako spotted in October 2022 by sport fishermen at Pantelleria, in Italian Mediterranean waters.

MATERIAL AND METHODS

On the morning of 7 October 2022, five sport fishermen, the second author (M.G. Bonomo), Enio Koshi, Emanuele Rizzo, Antonio Rizzo, and Peppino Benicivenga, were aboard a 6.9 m long boat in the waters of Pantelleria, Italy, in the central Mediterranean Sea. The anglers were trolling for little tunny, *Euthynnus alletteratus* (Rafinesque, 1810), without chum. The little tunny were intended to be used later as bait for greater amberjacks, *Seriola dumerili* (Risso, 1810).

RESULTS AND DISCUSSION

During the morning, the anglers caught two little tunny measuring about 40 cm in total length. At 12:00 p.m., with an almost completely calm sea and sunny weather, the dorsal fin of a shark was observed in 40 m deep blue waters, at 36.82895° N and 11.91366° E, 0.7 nautical miles north of Pantelleria. The large shark was observed by the anglers for 30 minutes (Fig. 1). They were the only boat in the area at that moment, but other boats could be seen far in the distance. The shark was accompanied by many pilotfish, *Naucratus ductor* (Linnaeus, 1758), swimming close to the shark's pectoral area (Fig. 2). Several copepods were attached to the skin of the shark, more numerous on the lower jaw and on the gills. The shark showed no interest in the boat and let it approach repeatedly. At one point, the second author briefly touched the dorsal fin of the shark with his hand without the animal showing any reaction. Later, the shark dived under the boat a few times, incurring some light whitish abrasions on the skin of the head and the apex of the first dorsal fin. At 12:30 p.m. the shark

suddenly dived and apparently left the area.

After the encounter the sport fishermen didn't resume fishing, rather returned to the harbour. Many pictures and short videos of the shark were shot by the second author with an iPhone 13 pro and an iPhone 11 for subsequent analysis. The images show the shark as seen from the boat and underwater. Some of these images were uploaded to social media, raising increased public attention to this case.

Some evident morphological features, including the markedly spindle-shaped body, pointed conical snout, presence of wide caudal keel, lunate caudal fin, long gill slits, high and erect first dorsal fin, and greyish blue colouration with strong metallic reflection on the flanks, allowed the authors to make an immediate identification of the animal as an unusually large shortfin mako shark. Additionally, the underwater images clearly showing the shape of the teeth – long, curved and pointed, with cutting edges, and protruding from the mouth in the lower jaw – left no doubt as to the identification of the species. The length of pectoral fins, markedly longer than in an average shortfin mako, is in accordance with the observation reported in Lopez-Mirones *et al.* (2020), that while newborns of *I. oxyrinchus* have very short pectoral fins, these get conspicuously longer as the individual grows.

The coloration of the underside of the snout and the lower jaw is dusky (Fig. 3), similar to the *marrajo criollo* form that was postulated by Moreno & Moron (1992) to be endemic to the Azores.



Fig. 1: The female shortfin mako shark *Isurus oxyrinchus* Rafinesque, 1810, estimated 350-370 cm TL, observed near Pantelleria, Italy, on 7 October 2022 (photo by Marco Giovanni Bonomo).

Sl. 1: Samica atlantskega mako, *Isurus oxyrinchus* Rafinesque, 1810, ocenjena na 350 do 370 cm telesne dolžine, opažena sedmega oktobra 2022 blizu Pantellerie (Italija) (foto: Marco Giovanni Bonomo).



Fig. 2: The shark was accompanied by at least 27 pilotfish, *Naucrates ductor* (Linnaeus, 1758), swimming close to its pectoral area (photo by Marco Giovanni Bonomo).

Sl. 2: Morskega psa je spremljalo vsaj 27 pilotov *Naucrates ductor* (Linnaeus, 1758), ki so plavali blizu prsnih plavuti (foto: Marco Giovanni Bonomo).

On the dorsal and lateral surfaces of the trunk there were several bite scars that are likely the result of love bites by another mako (Fig. 4).

The pictures and a video allowed the observation of the pelvic area, including a glimpse of the pelvic fin's free rear tip, which revealed the absence of claspers. We could therefore conclude that the observed shark was a female.

The size of the shark was carefully estimated by the second author at 350–370 cm total length (TL), based on the size of the boat, which was 690 cm.

The estimated size of the mako observed at Pantelleria is unusual for *I. oxyrinchus*. A study of 199 shortfin mako sharks showed an average total length of 171 cm (Kohler *et al.*, 1996). However, this species can sometimes attain much larger sizes. Several huge specimens have been recorded in the Mediterranean area. The largest shortfin mako reported to date worldwide was a female caught in the late 1950s in the Aegean Sea off Marmaris, Turkey, which was estimated at 585 cm TL with a 577–619 cm range (Kabasakal & De Maddalena, 2011). An estimated

500 cm long female was observed on 28 June 2018 near Cabrera Grande, in the Balearic Islands, Spain (Lopez-Mirones *et al.*, 2020). A 445 cm long specimen was caught off Six-Fours-les-Plages, France, in September 1973 (Capapé, 1977). A 425 cm long shortfin mako was caught off La Galite Island, Tunisia, on 24 September 1876, and its jaws are preserved in the Natural History Museum of Genoa, Italy (Doria & Gestro, 1877). An estimated 400–430 cm long female was observed on 21 June 2011 near Capraia, in the Tuscan Archipelago, Italy (De Maddalena & Heim, 2012). Lawley (1881) reported a 4-metre-long specimen that weighed 1000 kg, which was observed in a fishmonger's warehouse in Livorno and had been caught off Piombino, Italy. A 400 cm long shortfin mako captured off Caska, Novalja, Croatia, on 13 May 1882 was reported by Brusina (1888). A 390 cm long shortfin mako was caught on 30 November 1991 off Bagnara Calabria, Italy (Storai *et al.*, 2001). Another 390 cm long specimen, weighing 513 kg, was caught on 20 September 2000 off Punta Alice, Italy (Storai *et al.*, 2001). A 390 cm long female was caught on 26 July 2003 off



Fig. 3: The coloration of the underside of the snout and the lower jaw is dusky, similar to the *marrajo criollo* form that was postulated by Moreno & Moron (1992) to be endemic to the Azores (photo by Marco Giovanni Bonomo).

Sl. 3: Obarvanost spodnjega dela gobca in spodnje čeljusti je temna, podobno kot sta to opisala Moreno & Moron (1992) (*marrajo criollo*) (foto: Marco Giovanni Bonomo).

Scaletta Zanclea, Italy. A 380 cm long female was caught in summer 2012, by a commercial purse-seiner operating in Iskenderun Bay, eastern Levantine Sea (Kabasakal, 2015). Another female, measuring 370 cm TL, was caught between Portopalo di Capo Passero and Marzamemi, Italy, on 22 June 2004 (Celona *et al.*, 2004).

The estimated 350–370 cm TL female shortfin mako shark observed near Pantelleria is one of the largest of its species to be photographed and filmed alive in Mediterranean waters.

It is also of interest to note that the number of pilotfish accompanying the shark – at least 27 could be counted – was unusually large for a mako, more similar to that normally found in the oceanic whitetip shark, *Carcharhinus longimanus* (Poey, 1861).

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Fig. 4: On the dorsal and lateral surfaces of the trunk there are several bite scars that are likely the result of love bites by another mako (photo by Marco Giovanni Bonomo).

Sl. 4: Na hrbtnih in bočnih površinah trupa so vidne številne brazgotine, ki jih je najverjetneje povzročil drugi primerek mako (foto: Marco Giovanni Bonomo).

O VELIKEM PRIMERKU ATLANTSKEGA MAK, *ISURUS OXYRINCHUS* (LAMNIDAE), OPAŽENEGA BLIZU PANTELLERIE (OSREDNJE SREDOZEMSKO MORJE)

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POVZETEK

Sedmega oktobra 2022 so avtorji blizu Pantellerie v sicilskem prelivu (Italija) opazovali večji primerek samice atlantskega maka, *Isurus oxyrinchus Rafinesque, 1810*. Celotno dolžino so glede na dolžino plovila, ki je bila 690 cm, ocenili na 350 do 370 cm. Opazovani primerek je eden izmed največjih primerkov vrste *I. oxyrinchus*, ki so bili doslej fotografirani ali posneti v sredozemskih vodah.

Ključne besede: atlantski mako, *Isurus oxyrinchus*, Pantelleria, Italija, Sredozemsko morje

REFERENCES

- Brusina, S. (1888):** Morski psi Sredozemnoga i Crljenog mora (Sharks of the Adriatic and the Black Sea). Glasnik hrvatskoga naravoslovnoga društva, III, 167-230, Zagreb.
- Capapé, C. (1977):** Liste commentée des sélachiens de la région de Toulon (de La Ciotat à Saint-Tropez). Bull. Mus. Hist. Nat. Marseille, 37, 5-9.
- Celona, A., L. Piscitelli & A. De Maddalena (2004):** Two large shortfin makos, *Isurus oxyrinchus*, Rafinesque, 1809, caught off Sicily, western Ionian Sea. Annales, Ser. Hist. Nat., 14, 35-42.
- Cliff, G., S.F.J. Dudley & B. Davis (1989):** Sharks caught in the protective gill nets off Natal, South Africa. 3. The shortfin mako shark *Isurus oxyrinchus* (Linnaeus). S. Afr. J. Mar. Sci., 9, 115-126.
- Compagno, L.J.V. (2001):** Sharks of the world. An annotated and illustrated catalogue of shark species known to date. Volume 2. Bullhead, mackerel and carpet sharks (Heterodontiformes, Lamniformes and Orectolobiformes). FAO Species Catalogue for Fishery Purposes. No. 1, Vol. 2. FAO, Rome, 269 pp.
- De Maddalena, A. & H. Baensch (2005):** Haie im Mittelmeer. Franckh-Kosmos Verlags-GmbH & Co., Stuttgart, 240 pp.
- De Maddalena, A. & W. Heim (2012):** Mediterranean Great White Sharks. A Comprehensive Study Including All Recorded Sightings. McFarland, Jefferson, 254 pp.
- De Maddalena, A., A. Preti & R. Smith (2005):** Mako sharks. Krieger Publishing, Malabar, 72 pp.
- De Maddalena, A., M. Zuffa, L. Lipej & A. Celona (2001):** An analysis of the photographic evidences of the largest great white sharks, *Carcharodon carcharias* (Linnaeus, 1758), captured in the Mediterranean Sea with considerations about the maximum size of the species. Annales, Ser. Hist. Nat., 11, 193-206.
- Doria, G. & R. Gestro (1877):** Crociera del "Violante" comandato dal capitano armatore Enrico D'Albertis durante l'anno 1876. Ann. Mus. Civ. Sto. Nat. "G. Doria", Genova, 11, 302-304.
- Kabasakal, H. (2015):** Occurrence of shortfin mako shark, *Isurus oxyrinchus* Rafinesque, 1810, off Turkey's coast. Marine Biodiversity Records. doi:10.1017/S1755267215001104, Vol. 8, e134.
- Kabasakal, H. & A. De Maddalena (2011):** A huge shortfin mako shark *Isurus oxyrinchus* Rafinesque, 1810 (Chondrichthyes: Lamnidae) from the waters of Marmaris, Turkey. Annales, Ser. Hist. Nat., 21(1), 21-24.
- Kohler, N.E., J.G. Casey & P.A. Turner (1996):** Length-length and length-weight relationships for 13 shark species from the Western North Atlantic. NOAA Tech. Memo. NMFS-NE-110, 1-22.
- Lawley, R. (1881):** Studi comparativi sui pesci fossili coi viventi dei generi *Carcharodon*, *Oxyrhina* e *Galeocerdo*. Nistri, Pisa, 151 pp.
- Lopez-Mirones, F., A. De Maddalena & R. Sagarminaga Van Buiten (2020):** On a huge shortfin mako shark *Isurus oxyrinchus* Rafinesque, 1810 (Chondrichthyes: Lamnidae) observed at Cabrera Grande, Balearic Islands, Spain. Annales, Ser. Hist. Nat., 30(1), 25-30.
- Megalofonou, P., C. Yannopoulos, D. Damalas, G. De Metrio, M. Deflorio, J.M. De La Serna & D. Macias (2005):** Incidental catch and estimated discards of pelagic sharks from the swordfish and tuna fisheries in the Mediterranean Sea. Fish. Bull., 103, 620-634.
- Moreno, J.A. & J. Moron (1992):** Comparative study of the genus *Isurus* (Rafinesque, 1810) and description of a form ('*marrajo criollo*') apparently endemic to the Azores. Australian Journals of Scientific Research, 43(1), 109-122.
- Rafrafi-Nouira, S., Y. Diatta, A. Diaby & C. Capapé (2019):** Additional records of rare sharks from Northern Tunisia (Central Mediterranean Sea). Annales, Ser. Hist. Nat., 29(1), 25-34.
- Storai, T., M. Zuffa & R. Gioia (2001):** Evidenze di predazione su odontoceti da parte di *Isurus oxyrinchus* (Rafinesque, 1810) nel Tirreno Meridionale e Mar Ionio (Mediterraneo). Atti Soc. tosc. Sci. nat., Mem., Serie B, 108, 71-75.