

Short note/Kurze Mitteilung

A record of the Indo-Pacific tarpon *Megalops cyprinoides* (Broussonet, 1782) in Omani waters

Ein Nachweis des Indopazifischen Tarpuns *Megalops cyprinoides* (Broussonet, 1782) in den Gewässern von Oman

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Zusammenfassung: Im September 2017 wurde erstmals ein 380 mm langes Exemplar des Indopazifischen Tarpuns *Megalops cyprinoides* mit einem Kiemennetz in den Gewässern von Oman an der Küste von Al-Askhara City, 319 km südlich von Muscat City, Oman, gefangen. Dieser Fund bestätigt das bisher nicht eindeutig belegte Vorkommen dieser Art in den Gewässern von Oman. Morphometrischen und meristische Daten werden wiedergegeben und mit denen mehrerer Exemplare dieser Art aus anderen Teilen der Welt verglichen.

We report the record of the marine fish species *Megalops cyprinoides* from the Arabian Sea coast of Oman. It represents a substantial record and confirmation of its presence in Omani waters. The fish specimen was caught by gill net in the waters off Al-Askhara City, 319 km south of Muscat City (21° 50' 56.95" N, 59° 34' 48.31" E), on September 28th, 2017. The specimen was examined, photographed and identified to specific level according to RANDALL (1995). Morphometric and meristic characters were taken following WHITEHEAD (1984). Measurements were recorded to the lowest millimetre

(mm) by using a digital caliper. The specimen is deposited in the fish collection of the Marine Science and Fisheries Centre, Oman, Catalogue number OMMSFC 1354: *Megalops cyprinoides* (Broussonet, 1782): 1 adult specimen, total length 380 mm (fig. 1). The nearest locality to the Arabian Sea coast of Oman is the Red Sea and the Arabian Gulf, where the record of this species has been made respectively (MYERS 1991, CARPENTER et al. 1997; AL-BAZ 2007).

Megalops cyprinoides is distinguished from similar clupeid fish species such as *Elops machnata* and *Chanos chanos* in having large scales, last dorsal fin



Fig. 1: *Megalops cyprinoides*, 380 mm TL collected from Al-Askhara City coast, Arabian Sea coast of Oman.
Abb. 1: *Megalops cyprinoides*, 380 mm TL, gefangen an der Küste von Al-Askhara City, Küste der Arabischen See von Oman.

ray filamentous and presence of gular plate and 26-27 branchiostegal rays (FISCHER & BIANCHI 1984). The total length of the specimen of *M. cyprinoides* obtained in this study (tab. 1) lies just over half of the average maximum total length given for this species (LEY 2008). It is smaller than the specimen collected from Tokyo Bay (516 mm TL) (HAYASHI 1972). There are 12 synonyms for *M. cyprinoides* (ADAMS et al. 2016), which may indicate an uncertain taxonomic status.

There is wide disparity on the presence of *M. cyprinoides* in the Arabian Sea coast of Oman. In the distribution map given by WHITEHEAD (1984) is shown that *M. cyprinoides* is present in all

Omani waters, i.e. Arabian Gulf, Sea of Oman and the Arabian Sea coast of Oman. RANDALL (1995) has included this species among the fish fauna of Oman, but he did not mention where he observed the specimen/s from. In addition, the image given by RANDALL (1995) was taken from a specimen of the Indian waters. Accordingly, FROESE & PAULY (2018) in FishBase have recorded the presence of this species in Omani waters. ADAMS et al. (2016) proposed that *M. cyprinoides* is present in the Sea of Oman. In the distribution map given by GBIF (2018) there is no record of this species from the whole North-West Indian Ocean. Therefore, the results obtained in the present study will settle down this

Tab. 1: Morphometric and meristic characters of two specimens of *Megalops cyprinoides*, one collected from the Arabian Sea coast of Oman (this note) and one collected by HAYASHI (1972) from the Mouth of Tokyo Bay (TL: total length; HL: head length; SL: standard length).

Tab. 1: Morphometrische und meristische Daten von zwei Individuen von *Megalops cyprinoides*, gefangen an der Küste der Arabischen See vor Oman (vorliegende Mitteilung) und in der Mündung der Bucht von Tokyo (s. HAYASHI 1972) (TL: Totallänge; HL: Kopflänge; SL: Standardlänge).

Morphometric (mm) /meristic characters	Present study (% SL)	HAYASHI 1972 (% SL)
Total length (TL)	380	516
Standard length (% TL)	330 (86.8)	415
Fork length	290 (76.3)	-
Head length (HL)	86 (25.2)	114 (27.7)
Head depth	135 (40.9)	-
Eye diameter	22 (6.7)	28 (6.7)
Upper jaw length	25 (7.6)	61 (14.7)
Body depth	15 (4.6)	103 (24.8)
Caudal peduncle depth	35 (10.6)	37 (9.0)
Predorsal fin length	125 (37.9)	251 (60.4)
Preventral fin length	115 (34.9)	202 (48.1)
Dorsal fin length	210 (63.6)	249 (59.9)
Anal fin length	130 (39.4)	273 (65.7)
Ventral fin length	60 (18.2)	45 (10.8)
Pectoral fin length	65 (19.7)	69 (16.6)
Caudal fin length	100 (30.3)	-
Number of dorsal fin spines	3	-
Number of dorsal fin rays	22	15
Number of ventral fin rays	12	-
Number of pelvic fin rays	17	15
Number of anal fin rays	25	21

controversy about the presence of *M. cyprinoides* in the Arabian Sea coast of Oman in giving a substantial record from Al-Askhara City at the southern coast of Oman.

The lack of ichthyological surveys from Omani waters could explain the absence of preceding established records of *M. cyprinoides*. The Arabian Sea coast of Oman lies on the waterway traffic to and from the Strait of Babel-Mandeb Gulf and is believed to be one of the busiest waterways in the world, and ballast water from ships may have delivered resources for the introduction of the larvae and small juveniles of this species. We do not know whether this species has established sustainable populations in this region.

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Literature

ADAMS, A., K. GUINDON, A. HORODYSKY, T. MACDONALD, R. MCBRIDE, J. SHENKER, R. WARD, & J.S. SPARKS. 2016. *Megalops cyprinoides*. The IUCN Red List of Threatened Species 2016: e.T166868A46642796. <http://dx.doi.org/10.2305/IUCN.UK.2016.3.RLTS.T166868A46642796.en>. Downloaded on January 19th, 2018.

AL-BAZ, A. F., W. CHEN, J.M. BOSHOP, M. AL-HUSAINI, & S.A. AL-AYOUB. 2007. On fishing selectivity of

hadrah (fixed stake trap) in the coastal waters of Kuwait. Fisheries Research 84, 202-2009.

CARPENTER, K.E., F. KRUPP, D.A. JONES, & U. ZAJONZ. 1997. Living marine resources of Kuwait, eastern Saudi Arabia, Bahrain, Qatar, and the United Arab Emirates. FAO species identification field guide for fishery purposes. FAO, Rome.

FISCHER, W., & G. BIANCHI (eds). 1984. FAO. Species identification sheets for fishery purpose – Western Indian Ocean (Fishing Area 51). Food and Agricultural Organization of the United Nations, Rome. Vol. I-IV.

FROESE, R., & D. PAULY (eds). 2018. FishBase. Version 03/2012. www.fishbase.org (downloaded on January 17th, 2018).

GBIF 2018. Global Biodiversity Information Facility – Free and Open Access to Biodiversity Data. <http://www.gbif.org/>.

HAYASHI, M. 1972. A record of *Megalops cyprinoides* from the Mouth of Tokyo Bay. Japanese Journal of Ichthyology 19, 132-134.

LEY, J.A. 2005. Linking fish assemblages and attributes of mangrove estuaries in tropical Australia: criteria for regional marine reserves. Marine Ecology Progress Series 305, 41-57.

MYERS, R.F. 1991. Micronesian reef fishes. Second ed. Coral Graphics, Barrigada, Guam.

RANDALL, J.E. 1995. Coastal fishes of Oman. Bathurst (Australia).

WHITEHEAD, P.J.P. 1984. Megalopidae, pp. 138-145. In: FAO species identification sheets for fishery purposes. Western Indian Ocean fishing area 51. Vol. 3 (FISCHER, W., & G. BIANCHI, eds). FAO, Rome.

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