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**First Report of Magnificent Catshark, *Proscyllium magnificentum*
Last and Vongpanich, 2004
(Proscylliidae: Carcharhiniformes) from Bay of Bengal, Indian EEZ**

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Abstract: Present paper reports the occurrence of magnificent catshark *Proscyllium magnificentum* Last & Vongpanich, 2004 from Indian EEZ, off Andaman Islands in the Bay of Bengal. The two specimen *P. magnificentum* (22.7-32.8 cm TL) caught by deep sea trawlers off South of Sentinel Island at depth of 300 m and landed at Junglighat fish landing centre, Port Blair formed material for the second report of *P. magnificentum* after original description and first report from India.

Key words: *Proscyllium magnificentum* • Shark. Diversity • Distribution • Bay Of Bengal • Andaman Islands • India

INTRODUCTION

The finback catshark family Proscylliidae (Carcharhiniformes) consist of very small, poorly known deep water sharks that have no commercial importance in fishery and very rarely occur in landings as by-catch, mostly in trawls. Proscylliidae contains six valid species in three genera [1]. Genus *Proscyllium* Hilgendorf, 1904, consist of only two species; Graceful catshark *Proscyllium habereri* Hilgendorf, 1904, known from the western Pacific, from northwest Java to Vietnam, China, Taiwan, Korea, Ryukyu Islands and southeast Japan [1-4] and the Magnificent finback catshark *P. magnificentum* Last and Vongpanich, 2004, known only from Myanmar [5] and Thailand [6, 7]. The present report confirms the occurrence of *P. magnificentum* in the Indian Exclusive Economic Zone (EEZ) and provides a new distribution record for species.

Two specimens of finback catshark *P. magnificentum* were collected on 4th March 2014, from the bycatch landings of deep-sea shrimp trawler operated off south of South Sentinel Island, in the Andaman and Nicobar Islands at 300 m depth and landed at Junglighat fish landing centre at Port Blair, India. Specimens were

identified using [5], Morphometric measurements were recorded directly following [8]. The specimens collected were deposited in the collections of Museum in Department of Ocean Studies and Marine Biology, Pondicherry University at Port Blair, India (PUMB 3521, 227 cm TL, Female) and National Biodiversity Referral Museum at CMFRI, Cochin, India (CMFRI GA, 1.4.2.2, 328 mm TL, Male).

RESULTS AND DISCUSSION

Class: Chondrichthyes

Subclass: Elasmobranchii

Order: Carcharhiniformes

Family: Proscylliidae

***Proscyllium magnificentum* Last and Vongpanich, 2004**

Diagnosis: A small, slender finback catshark with beautiful markings, spots and blotches on body. First dorsal fin origin behind pectoral free tips. Second dorsal-fin origin slightly opposite or in front of the anal-fin origin, interdorsal distance subequal to head length; lower labial furrow longer than upper, more than twice length of upper labial furrow, anterior nasal flaps with a greatly enlarged posterior lobe; internarial space only

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Fig. 1: Dorsal image of *Proscyllium magnificentum* collected from Indian EEZ

slightly shorter than nostril width; dorsal margin of the caudal fin more than twice the length of second dorsal fin; height of second dorsal fin about twice height of anal fin. Dorsal surface and sides with a striking colour pattern consisting of numerous dark spots and blotches, ventral side pale (Figure. 1).

Description: A very small shark, body slender and firm with trunk sub-cylindrical anterior and body gently tapering posteriorly. Pre-caudal length 76.22-78.41%TL; Pre-second dorsal length 59.15-59.91%TL; Pre-first dorsal length 32.7-33.48%TL; Head moderately depressed, head length 20.26-22.14%TL. Snout short, slightly rounded-parabolic in dorso-ventral view, tip broadly rounded, pre oral length 6.60-6.61% TL. Eye large, elongate to slit-like, length 3.96-4.10% TL; Mouth moderately large and long, broadly arched, mouth width more than twice mouth length. Mouth length 2.64-2.96%TL; Mouth width 7.05-7.62%TL; Upper labial furrows very short, length 0.42-0.44%TL, less than half length of lower furrows; Pre branchial length 17.2-17.62%TL; Pre spiracular length 11.45-11.54%TL; Pre orbital length (horizontal) 5.73-5.9%TL; Pre orbital length (direct) 7.16-8.37%TL; Pre narial length 4.41-5.41%TL; Pre pectoral length 19.73-21.15% TL; Pre pelvic length 41.16-41.85% TL; Pre anal length 59.45-62.11% TL; 16.74-18.5%TL; Inter orbital space 6.17-6.18%TL; Nostril large; anterior nasal flap well developed with enlarged posterior tip, forming a long, broadly rounded lobe. Nostril width 2.63-3.08%TL; Internarial space 2.64-2.9%TL; Spiracle length 0.73-0.88%TL; Eye spiracle space 0.66-0.89% TL; First gill slit

height 1.32-1.48%TL; Fourth gill slit height 2.18-2.2% TL; Fifth gill slit height 1.57-1.76%TL; Head height 5.29-5.49%TL.

Pectoral fins broad, anterior margin 12.33-13.38% TL, anterior margin slightly convex, apex rounded, posterior margin of pectoral nearly straight, rear corner broadly rounded. Pectoral fin length 9.25-9.76%TL; Pectoral fin base 4.96-5.29%TL; Pectoral fin height 9.12-9.25%TL; Pelvic fins small, apex broadly rounded, pelvic fin length 8.81-9.62% TL. Pelvic fin anterior margin 5.13-5.73%TL; Pelvic fin base 4.1-4.41%TL; Pelvic fin height 3.08-3.52%TL; First dorsal fin moderately erect and slightly larger, first dorsal height 5.29- 6.22% TL. First dorsal fin length 11.01-11.05%TL; First dorsal anterior margin nearly straight, broadly rounded apex, slightly concave posterior margin. First dorsal fin base length 7.34 -8.81; Second dorsal fin length 10.13-10.28%TL; Second dorsal fin base length 6.61-6.98%TL; Second dorsal height 5.46-6.17%TL; inter-dorsal space 18.50-18.96% TL.

Abdomen long, pectoral to pelvic space 16.74-18.50% TL, caudal peduncle slender and moderately elongate. Anal fin triangular smaller than second-dorsal fin, height 2.62-2.64% TL, Anal fin length 8.29-9.25%TL; Anal fin base length 5.18-6.17%TL; anal-caudal space 8.10- 8.81% TL, dorsal-caudal space 10.36-10.57% TL; Caudal peduncle weakly compressed, oval in cross section, height 2.95-3.08% TL; Caudal peduncle width 2.09-2.2%TL. Lower caudal fin lobe poorly developed but distinct. Dorsal caudal margin length 22.79-22.91%TL; Pre ventral caudal margin length 7.05-7.56%TL; Sub terminal caudal margin 4.32-4.85%TL; Terminal caudal

margin length 3.78-4.41%TL; Terminal caudal lobe length 5.73-6.27%TL; Teeth very small and similar. Tricuspid in males. Coloration (present study): Dorsal and sides of the body brownish, with dark spots and blotches; markings and spots variable in size, ventral surface uniformly white. Median space between saddles almost uniform pale brown; spots along lateral margin are larger.

Remarks: *Proscyllium magnificum* was described from northern Andaman Sea, off Myanmar based on five specimens collected from a depth of 141-144 m depths. First specimens of the species was collected during 1989 in a joint Thai-Burmese survey of the Myanmar continental shelf [5], however the present collection depth (300 m) was deeper than the known habitat and occurred as bycatch of deep-sea shrimp trawls. Morphometric measurement of the newly collected materials of *P. magnificum* has been compared with that of original description and showed character consistency. *Proscyllium magnificum* is a recently described small and rare shark which have no importance in fishery and it is Not Evaluated against the IUCN Red List Status criterion [9]. The diversity of marine fauna of Andaman waters of India and especially elasmobranchs, are largely unknown [10-12] and more studies are needed from region for exploring the diversity.

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REFERENCES

1. Ebert, D.A., S. Fowler and L.J.V. Compagno, 2013. Sharks of the world. Wild Nature Press, pp: 528.
2. Compagno, L.J.V. and V.H. Niem, 1998. Sharks. In: Carpenter, K.E. and Niem, V.H. (eds.). FAO Species Identification Guide for Fishery Purposes. The Living Marine Resources of the Western Central Pacific. FAO, Rome., 2: 1195-1368.
3. Compagno, L.J.V. M. Dando and S. Fowler, 2005. A field guide to sharks of the world. Harper Collins Publishing Ltd., London, pp: 368.
4. Nakaya, K., 1983. Redescription of the holotype of *Proscyllium habereri* (Lamniformes, Triakidae). Japanese Journal of Ichthyology, 29: 469-473.
5. Last, P.R. and V. Vongpanich, 2004. A new finback catshark *Proscyllium magnificum* (Elasmobranchii: Proscylliidae) from the north-eastern Indian Ocean. Phuket Marine Biological Centre Research, Bulletin 65(29): 23-29.
6. Ahmad, A. and A.L.P. Khoik, 2012. Field guide to sharks of the Southeast Asian region. SEAFDEC/MFRDMD/SP/18:1-210.
7. Krajangdara, T., 2014. Sharks and Rays in Thailand. Country Report, pp: 1-10.
8. 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 2 - Carcharhiniformes. FAO Fish Synop, 125(4/2): 251-655.
9. IUCN, 2014. The IUCN Red List of Threatened Species. Version 2014.2. <www.iucnredlist.org>. Downloaded on 13 October 2014.
10. Mondal, J., C. Raghunathan and T. Mondal, 2015. Diversity and Distribution of Common Ascidiaceans of Andaman Group of Islands. Middle-East Journal of Scientific Research, 23(10): 2411-2417.
11. Mondal, T., C. Raghunathan and K. Venkataraman, 2011. Diversity of Scleractinian Corals in Middle and North Andaman Archipelago. World Journal of Zoology, 6(4): 407-419.
12. Bineesh, K.K., K.V. Akhilesh, K.A. Sajeela, E.M. Abdussamad, A. Gopalakrishnan, V.S. Basheer and J.K. Jena, 2014. DNA Barcoding Confirms the Occurrence Rare Elasmobranchs in the Arabian Sea of Indian EEZ. Middle-East Journal of Scientific Research, 19(9): 1266-1271.