



## NEW RECORD OF TWO SPECIES OF *EPINEPHELUS* (PERCIFORMES: SERRANIDAE: EPINEPHELINAE) FROM ANDAMAN ISLANDS, INDIA

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### INTRODUCTION

Andaman Nicobar Islands situated in the Bay of Bengal between 6°45' -13 45' N and 92°10' - 94°15' E consist of 572 islands, islets and rocks and covers a distance of almost 750 km North - South, with a coastline of 1962 km, and bring in for India, an Exclusive Economic Zone (EEZ) of 600 thousand km<sup>2</sup>. A comprehensive and authoritative account of fishes of the Indian region including Andaman and Nicobar Islands was published by Francis Day (1870). Herre (1941) listed 490 species of fishes. Talwar (1990) prepared a comprehensive list of fishes consisting of 724 species; followed by Rajan (2002) and Rajan *et al.* (2013) listed a total of 1434 species of fish including 48 species of groupers. Randall and Heemstra (1991) described 110 species of groupers from Indo-Pacific region.

### MATERIALS AND METHODS

The new records of fishes were made by field surveys in the fish market of Junglighat, South Andaman Islands, which resulted in the record of two species of groupers not previously known in this region. The photographs were taken with the help of Galaxy S4 mobile camera by the author.

### RESULTS

The serranid fishes commonly known as groupers are classified in the subfamily Epinephelinae. They are of moderate to large size, mostly occur in shallow water. The last few years represent a significant increase of knowledge

about the fishes of Andaman and Nicobar Islands. During this study 2 new records of grouper fishes were recorded under the order Perciformes, family Serranidae and subfamily Epinephelinae under a single genera with two species as *Epinephelus epistictus* (Temminck and Schlegel, 1842) and *Epinephelus heniochus* Fowler, 1904 are associated with coral reefs, rocky areas and silty bottoms.

### SYSTEMETIC ACCOUNTS

Class ACTINOPTERYGII

Order PERCIFORMES

Family SERRANIDAE

Subfamily EPINEPHELINAE

*Epinephelus epistictus* (Temminck and Schlegel, 1842) Spotted grouper

1842. *Serranus epistictus* Temminck and Schlegel, Piscesin P.F. von Siebold's *Fauna Japonica*: 8 (Type locality: Japan).
1991. *Epinephelus epistictus* Randall and Heemstra, *Indo-Pacific fishes*, no. 20: 137.



*Diagnostic Characters:* Dorsal fin with XI spines and 15 rays; Anal fin with III spines and 8 soft rays; Pectoral fin with 18 rays; Lateral line scales 65; no scales on maxilla; gill rakers 9 + 16.

Light brown to yellowish brown, shading to pale lavender – brown ventrally, with very small dark brown spots on body, often concentrated on upper half; a faint broad dark band from orbit to opercular flap and two narrower oblique dark bands from cheek; median and pelvic fins yellowish brown, the dorsal with small dark spots; caudal fin with very small spots on base and white margin; soft portions of dorsal, anal and tip of pelvic fins with a white margin; pectoral rays brownish yellow, the membranes clear. Attains 670 mm. Habitat: Found in the continental shelf over soft bottom, associated with coral reefs or rocky bottoms.

*Distribution:* Indo-West Pacific: Red Sea, Kenya to South Africa; Oman, India, Korea, Japan including Ogasawara Islands, China, Taiwan, Hong Kong, Indonesia, Papua New Guinea, the Arafura Sea and northern Australia.

*Remarks:* First report from Andaman Islands.

***Epinephelus heniochus* Fowler, 1904**  
Bridled Grouper

1904. *Epinephelus heniochus* Fowler, *Jour. Acad. Nat. Sci. Phila., ser. 2*, 12: 522, pl. 18 (Type locality: Padang, Sumatra).
1991. *Epinephelus heniochus* Randall and Heemstra, *Indo-Pacific fishes*, no. 20: 163.

*Diagnostic Characters:* Dorsal fin with XI spines and 14 rays; Anal fin with III spines and 8 rays; Pectoral fin with 17 rays; Lateral line scales 57; Gill rakers 8 + 15; corner of preopercle with 2-4 greatly enlarged serrae; membranes of spinous portion of dorsal fin incised; caudal fin rounded; pelvic fins not reaching anus. Colour brown dorsally, shading to whitish, yellowish or pale pinkish ventrally, without any markings on body; head with an indistinct brown stripe extending from eye to end of opercle and two narrow diagonal brown bands across lower part of head, one from ventral edge of orbit passing above corner of preopercle and the other parallel with it from upper edge of maxillary groove to below corner of preopercle; median and pelvic fins yellowish grey, the lower part of caudal fin, spinous dorsal and anal fin darker than rest of fin; anal, caudal and pelvic fins have a pale distal margin. Attains 430 mm.



*Habitat:* Inhabits soft bottom, rather than rocky areas.

*Distribution:* Indo-Western Pacific: the Andaman Islands to Philippines, the Arafura Sea and northern Australia.

*Remarks:* First report from India.

### CONCLUSIONS

Review of literature revealed that *Epinephelus epistictus* (Temminck and Schlegel, 1842) is new addition of Andaman Islands and *Epinephelus heniochus* Fowler, 1904 is new addition to Indian waters. Diagnostic characters, distribution and colour photos of both species are given in this chapter. The aim of this work is to add new information on the additions of fishes from these Islands. This finding shows that Andaman and Nicobar Islands coast has a regular connectivity with the south-eastern coast of Indonesia and north-eastern coast of Burma as the fish diversity in these waters also receives special interest in terms of marine zoo-geography because of the confluence of Andaman Sea fishes with Western Pacific and the Eastern Indian Ocean. Long-term monitoring studies will allow a better understanding of connectivity patterns along the coast of Andaman and Nicobar Islands as well as the possible establishment of new populations of species.

### ACKNOWLEDGEMENTS

Thanks to Dr Kailash Chandra, Director, Zoological Survey of India, Kolkata and Officer-in-Charge, Zoological Survey of India, Port Blair for facilities and encouragement to undertake this study. Thanks to Dr. J E Randall Bishop Museum, Hawaii, USA, Matthew Craig, University of Puerto Rico and Dr SS Mishra, Zoological Survey of India, Kolkata for the preparation of the manuscript by sharing their knowledge.

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