



NEW RECORD OF TWO SPECIES OF *BELOBRANCHUS* (TELEOSTEI : GOBIOIDEI : ELEOTRIDAE) FROM ANDAMAN ISLANDS

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INTRODUCTION

Mount Harriet National Park is lies between 10°43'57N latitudes and 92°43'41 to 92°47'11E longitudes. The area of park is about 46.62 km² (Fig. 1). The park possesses various hill ranges, which generally lie in the north and south direction of islands. From these, numerous spurs and ridges branch out in east and west directions. The hills are steeper on the east than on west. The principal peaks are Mt. Koyob (460m, the highest peak of N.P), Mt. Hex. (424m), Mt. Harriett (422m), Mt. Godridge (377m) and Mt. Carpenter (373m). The beaches on eastern coast are generally rocky with a few sandy patches. The park also possesses a few fresh water streams, arising from the hill ranges and draining into the east coast also in the west as small streams which fulfill the water required by the villagers and residents of Bambooflat, Stewart Gunj, Nayapuram, Wimberly Gunj, Mannarghat, Malapuram, Wrightmyo, Kallatang and Shoalbay areas. Rema Devi (2010) listed 23 species, of these only 8 are primary fresh water fishes and others are secondary fresh water fishes encountered in fresh water habitats. Though the numbers of primary freshwater species are few there are 2 species endemic to Andaman waters viz. the syngnathid *Microphis insularis* (Hora) and the eleotrid *Eleotris andamanensis* Hora. The hill stream gobiid species *Sicyopterus microcephalus* Bleeker is a synonymes of *Sicyopterus garra* Hora recorded from Andaman Islands. Two unique native fish species *Eleotris andamanensis*

and *Microphis insularis* are found nowhere else in the world (Talwar and Jhingran, 1991). A detailed investigation has recently been made on the freshwater fish fauna of Mount Harriet National Park, Andaman Islands. This has yielded 25 species; among these two freshwater eleotrids under the genus *Belobranchnus* were collected. The family Eleotridae commonly known as sleepers (gudgeons) comprises nearly 172 species distributed among 27 genera (data from Eschmeyer and Fong, 2012).

MATERIALS AND METHODS

A study was undertaken from January 2010 to December 2012, to assess the species diversity and composition of freshwater fishes in five tributaries of freshwater streams in the foothills of Mount Harriet National Park, South Andaman. Riverine substrate is dominated by boulders and gravels with small patch of muddy or silted areas. The banks of the streams are generally steep, with overhanging trees and assorted shrubs. The material studied has been deposited in the reference collections of Zoological Survey of India at Port Blair.

RESULTS

Belobranchnus segura Keith, Hadiaty and Lord, 2012 (fig. 2)

2012. Keith P., Hadiaty R. K., and Lord C., A new spesies of *Belobranchnus* (Teleostei: Gobioidae: Eleotridae) from Indonesia. *Cybium*, 36(3): 479-484.

Diagnostic features : D VI, I,7; A I,7; P 21-24; V. I, 5; C 13-15; LSS 55-60; TRF 24-27; TRB

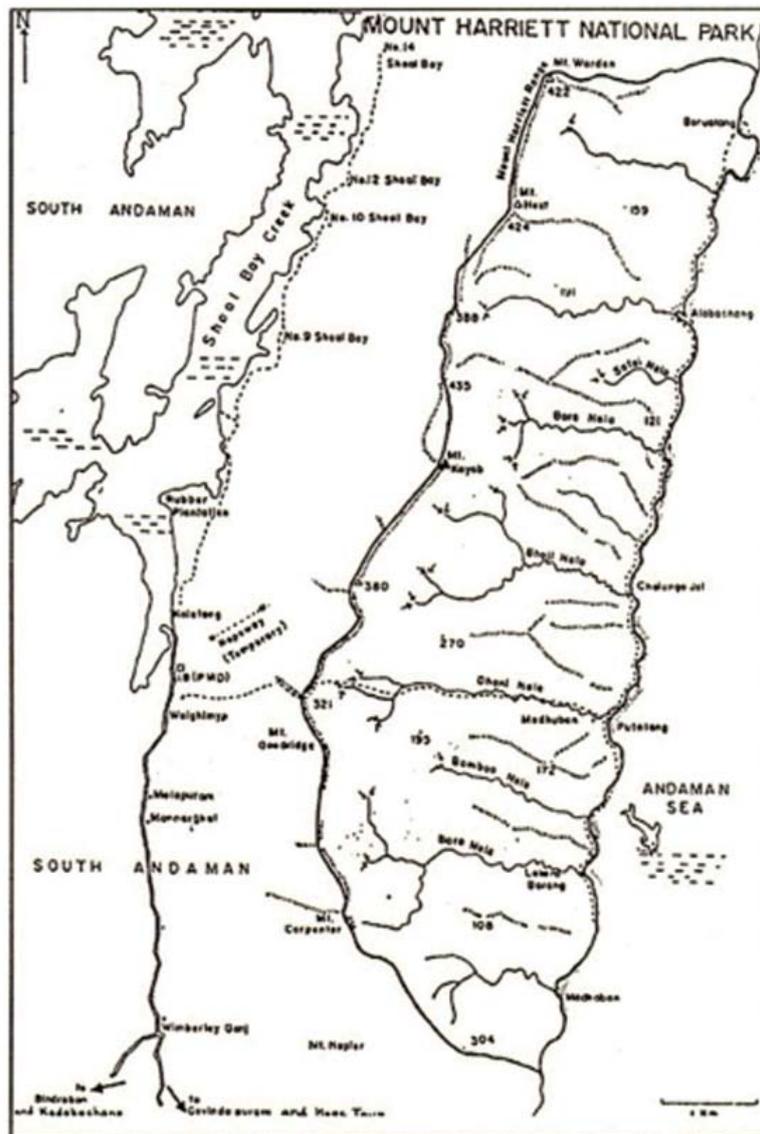


Fig. 1. Map of Mount Harriet National Park to show field location as (Shoal-bay 12) arrow mark

19-21; PDS 18-26. Body elongate, cylindrical anteriorly, slightly compressed posteriorly; head depressed; snout convex; lower jaw prominent; nostrils are not tubulate; mouth large; teeth in front in several rows, outer row a little enlarged; no pore on head; cephalic sensory papillae system well developed with seven row of papillae on head; the first or first and second branchiostegal rays end anteriorly in a sharp, conical forward directed spine form a spine; first dorsal fin obtuse, 2nd to 4th rays longest; caudal fin rounded; ctenoid scales on flanks and caudal peduncle; cycloid scales on top of head, on the base of pectoral fins and on

the belly; anterior part of throat and head naked; scales of nape small; males with a rounded/triangular urogenital papilla with distal tip rounded and the females with bulbous rogenital papilla with fimricate projections around distal opening. Colour: no sexual dichromatism; body red brown; head grayish brown with brown stripes radiating from eye to snout, top of head and cheeks and fading on nape and operculum; large alternating dark and light brown stripes on back; dorsal fins orange with black zebra stripes; pectoral fin base with dark blotch; caudal peduncle blackish and caudal fin orange and no spots.

Material examined: 4 examples, (58-76mm SL), 14.03 2012, (11° 49' 545'' N, 92° 43' 638'' E); shoal bay, South Andaman, Coll. PT Rajan, (ZSI ANRC 7264).

Ecology: Both the species are benthic. It occurs in lower parts of coastal streams, collected at elevation 93 ft., depths 1.5 to 2.0 m with a substrate of rocky and gravel bottoms.

Distribution: Known only from Indonesia and Andaman Islands, India.



Fig. 2. *Belobranchus segura*

Belobranchus belobranchus (Valenciennes, 1837) (fig. 3)

1837. *Eleotris belobrancha*, Valenciennes, *Hist. Nat. Poissons* 12: 243.

2004. *Belobranchus belobranchus*, Larson, H. K. and B. Pidgeon, New records of freshwater fishes from East Timor. The Beagle, Records of the Museum and Art Galleries of the Northern Territory vol. 20: 195-198.

Diagnostic features: D VI, I,7; A I,7; P 19 and 21; V. I, 5; C 13 and 15; LSS 56 and 63; TRF 31 and 34; TRB 21 and 22; PDS 28 and 32. Body elongate, cylindrical anteriorly, slightly compressed posteriorly; head depressed; snout convex; lower jaw prominent; nostrils are not tubulate; mouth large; teeth in front in several rows, outer row a little enlarged; no pore on head; cephalic sensory papillae system well developed; the first or first and second branchiostegal rays end anteriorly in a sharp, conical forward directed spine; caudal fin rounded. Body dark to olivous above, dark or yellowish below, many narrow dark horizontal lines on the sides, generally light brown bands alternating with dark brown midlateral stripes and the caudal fin is always spotted, head grayish brown with brown stripes radiating from eye to snout, top of head and cheeks and fading

on nape and operclum; dorsal fins also spotted; caudal peduncle with 2-3 large blackish spots.



Fig. 3. *Belobranchus belobranchus*

Material examined: 2 examples, (54mm and 65mm SL), 14.03 2012, (11° 49' 545'' N, 92° 43' 638'' E); shoal bay, South Andaman, Coll. PT Rajan, (ZSI ANRC 7265),

Ecology: Both the species are benthic. It occurs in lower parts of coastal streams, collected at elevation 93 ft., depths 1.5 to 2.0 m with a substrate of rocky and gravel bottoms.

Distribution: Known from Indonesia, Papua New Guinea, Philippines and Andaman Islands, India.

CONCLUSION

In the Pacific area the Eleotridae family developed many endemic genus occurring in the lower to the middle reaches of rivers as *Belobranchus segura* Keith, Hadiaty and Lord, 2012 and *B. belobrancha* (Cuvier and Valenciennes, 1837) are the only two known species of the genera *Belobranchus*, the present study revealed that both the species also present in the Andaman Islands, situated in the remote Eastern Islands of the Indian Ocean. It seems that the Andaman and Nicobar Islands coast has a regular connectivity with the south-eastern coast of Indonesia and north-eastern coast of Burma in terms of faunal affinity. 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 more new populations of species.

SUMMARY

Two new records of fishes *Belobranchnus segura* Keith, Hadiaty and Lord, 2012 and *B. belobranchna* (Cuvier and Valenciennes, 1837) are described on the basis of 06 specimens collected from western slope freshwater streams of the Mount Harriet National Park, Andaman Islands. This is herein described as the first record of the genus *Belobranchnus* from India.

ACKNOWLEDGEMENTS

We thank Dr K. Venkataraman, Director,

Zoological Survey of India, Kolkata and Dr. C. Raghunathan, Officer-in-Charge, Zoological Survey of India, Port Blair for facilities and encouragement to undertake this study. Thanks to Dr. Keith, P., Museum national d'Histoire naturelle, France, Dr. Helen K. Larson Curator Emeritus, Fishes Museum and Art Gallery of the Northern Territory Australia, Dr. Rema Devi and Dr. Rajkumar Rajan Zoological Survey of India, Chennai for fruitful discussions on related topics. We also thank CA Rahaman DFO, P.T. Alexander ACF and Hussain, Forester of Forest Division, South Andaman for providing logistics support.

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