# Rediscovery of *Trichonotus cyclograptus* (Alcock, 1890) after 123 years: A sand diver fish species from Bay of Bengal

Dipanjan Ray<sup>1</sup>, Anil Mohapatra<sup>1,2\*</sup> & Subhrendu Sekhar Mishra<sup>3</sup>

<sup>1</sup>Marine Aquarium and Regional Centre, Zoological Survey of India, Digha, India 721 428

<sup>2</sup>Estuarine Biology Regional Centre, Zoological Survey of India, Gopalpur-on-Sea, Ganjam, Odisha-761002, India

<sup>3</sup>Marine Fish Section, Zoological Survey of India, Kolkata- 700 016, India

\*[E.Mail: anil2k7@gmail.com]

Received 14 June 2016; revised 19 October 2016

Trichonotus cyclograptus (Alcock, 1890) is a sand diver fish species of family Trichonotidae, rediscovered from Bay of Bengal after 123 years. The present site of the collection of the specimens is more than 400 kilometers away northwardly from the type locality. Both the type locality as well as the current locality is within the Bay of Bengal along the East coast of India, which suggests that the species might be endemic to Bay of Bengal and within these 123 years the species is not been reported from elsewhere in the world. This species is also reported for the first time from West Bengal coast.

[Key Words: West Bengal, rediscovery, endemic, New record]

#### Introduction

Trichonotus cyclograptus (Alcock, 1890)<sup>1</sup>, a sand diver fish species of family Trichonotidae, was described by Alcock<sup>1</sup> and redescribed from the earlier specimens by Katayama et al. 2. The original locality of the type specimens was from Bay of Bengal, Ganjam Districts of Odisha. The species was described with eight syntypes as indicated in Alcock<sup>1</sup>, (one specimen dissected) of which six has been deposited in the collection of Zoological Survey of India (cataloged as ZSI F 12932 – 12837) and one specimen was transferred to the Natural History Museum(BMNH), London<sup>2</sup>. During the redescription of the specimen, it is mentioned that the only specimen in the BMNH museum (1891.9.2.1), is in good condition and the specimens in the ZSI museum (ZSI F12932 & ZSIF12935) are damaged<sup>2</sup>. Although it was stated that other four specimens are missing for some years<sup>3-4</sup>, specimens bearing number 12933 and 12837 has been traced out but are broken into several pieces. The available specimens in the museums of BMNH and ZSI were collected by Alcock during the year 1890. Since then nobody has reported this species neither from its type locality nor from anywhere across the globe. After 123 years of the discovery of the species, single specimen of the species was collected and documented in this paper.

### **Materials and Methods**

One specimen (Standard length 108 mm) was collected from Shankarpur fishing harbor of West

Bengal State and deposited in the museum of Marine Aquarium and Regional Centre, Zoological Survey of India, Digha with registration No. MARC/ZSI/F3539.

## **Result and Discussion**

The Trichonotus cyclograptus (Alcock, 1890) specimen collected is having an elongated body compressed posteriorly; snout long, pointed; mouth large and lower jaw longer than upper jaw and containing short cirri; eye small and oval; interorbital space is very narrow. Anterior nostril tubular and posterior nostril with small pore. The upper jaw having four rows of irregular large teeth anteriorly and three irregular rows of small teeth posteriorly. The lower jaw with single regular row of teeth anteriorly, followed by two irregular rows of teeth posteriorly. Dorsal fin is with four spines, 46 soft rays and anal fin is with 38 soft rays. Dorsal fin spine is non-filamentous and all rays are branched. Lateral line with 59 scales; 29 rows of scales before anus. Head and body is brown colored with 12 dark bands (Fig. 1A); fins and body with small circular spots (Fig.1B). Total numbers of vertebrae is 53.

Trichonotus cyclograptus is very similar to T. arabicus, but differs from T. arabicus by having 59 lateral line scales (T. arabicus: 55-59 lateral line scales); 12 bands (a row of 14 dark markings in T. arabicus) and 29 pre-anus scale rows (20-22 pre-anus scale rows in T. arabicus). The rediscovery of the species from Bay of Bengal after 123 years suggests

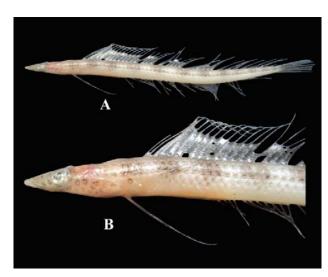


Fig. 1 — *Trichonotus cyclograptus* (Alcock, 1890), MARC/ZSI/F3539 (SL: 108mm)

that this species might be endemic to Indian Bay of Bengal coast.

The present collection site of the fish is more than 400 kilometers away northwardly from the type locality. Both the type locality as well as the current locality is within the Bay of Bengal along the East Coast of India. The *Trichonotus cyclograptus* 

normally prefers sandy bottom habitat. The specimen is collected at a depth of 14.7 m and 36 nautical miles from Digha, West Bengal (Lat N 20<sup>0</sup>05.066'; Long E 88<sup>0</sup>09.45'). The type specimens were reported only from the sandy bottom of Ganjam district of Odisha at a depth of 18-23 m.

# Acknowledgement

Authors are thankful to Dr. Kailash Chandra, Director, Zoological Survey of India, for providing necessary facilities for the work. Author DR is thankful to Zoological Survey of India for Senior Research Fellowship.

### References

- Alcock, A.W. (1890). On some undescribed shore-fishes from Bay of Bengal. Annals and Magazine of Natural History 6:425-443.
- 2 Menon, A.G.K. & K.V. Rama-Rao (1970). Type-specimens of fishes described in the RIMS. "Investigator" collections (1884-1926). *Copeia* 1970: 377-378.
- 3 Menon, A.G.K. & G.M. Yazdani. (1968). Catalogue of typespecimens in zoological Survey of India. Part-2, Fishes. Records of Zoological Survey of India, 61: 91-190.
- 4 Katayama, E. H. Motomura & H. Endo (2012). A new species of *Trichonotus* (Perciformes: Trichonotidae) from Somalia and redescription of *Trichonotus cyclograptus* (Alcock, 1890) with designation of lectotype. *Zootaxa* 3565: 31-43.