



Golden stinging catfish, *Heteropneustes fossilis* (Bloch, 1794), recorded from Subarnarekha River Basin of Paschim Medinipur, West Bengal, India

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ARTICLE INFO

Received: 03.11.2023

Revised: 10.12.2023

Accepted: 11.12.2023

Key Words:

First Record, Golden Catfish, *Heteropneustes fossilis*, West Bengal.

ABSTRACT

During the present investigation a golden stinging catfish, *Heteropneustes fossilis* (Bloch, 1794) has been recorded from Keshiary, Paschim Medinipur, West Bengal, India. It is the case of albinism in catfishes under Order Siluriformes. Present report is the first-time record of golden stinging catfish from West Bengal.

Introduction

Albinism among catfishes under order Siluriformes is very rare (Oliver, 1969; Dahlberg, 1970). Scientists throughout world recorded 33 species of albinos or semi-albinos under nine families (Guido *et al.*, 1991) and present *Heteropneustes* is one of them. Bondari (1981) proved that albinism is linked to a recessive autosomal gene and is a rare phenomenon. History of records of albinism in catfish from India is limited and first report of albino catfish was a freshwater albino *Clarias batrachus* (Linnaeus, 1758) from Midnapur, West Bengal, India by Hora (1926). Later on, Baruha (1966) reported albino freshwater catfish, *Heteropneustes fossilis* (Bloch,

1794) from Assam. Beside freshwater, some of brackish water catfishes was reported by Gupta and Bhoumik (1958) from Diamond Harbor, West Bengal; Pillai and Somvanshi (1979) from South-east coast; Rajapandian and Sundaram (1967) from Mandapam, Palk Bay and Baragi *et al.*, (1976) from Malpe Fish Centre. Therefore, present report is the second record of albino *Heteropneustes fossilis* (Bloch, 1794) from India, after Baruha (1966) and first time from West Bengal.

Materials and Methods

During study period (from April 2019- Feb 2022) the specimens were collected by using different gears with the help of fishermen

and also collected from local fish market for proper identification and permanent preservation. Present specimen (total length located in study area. After taking

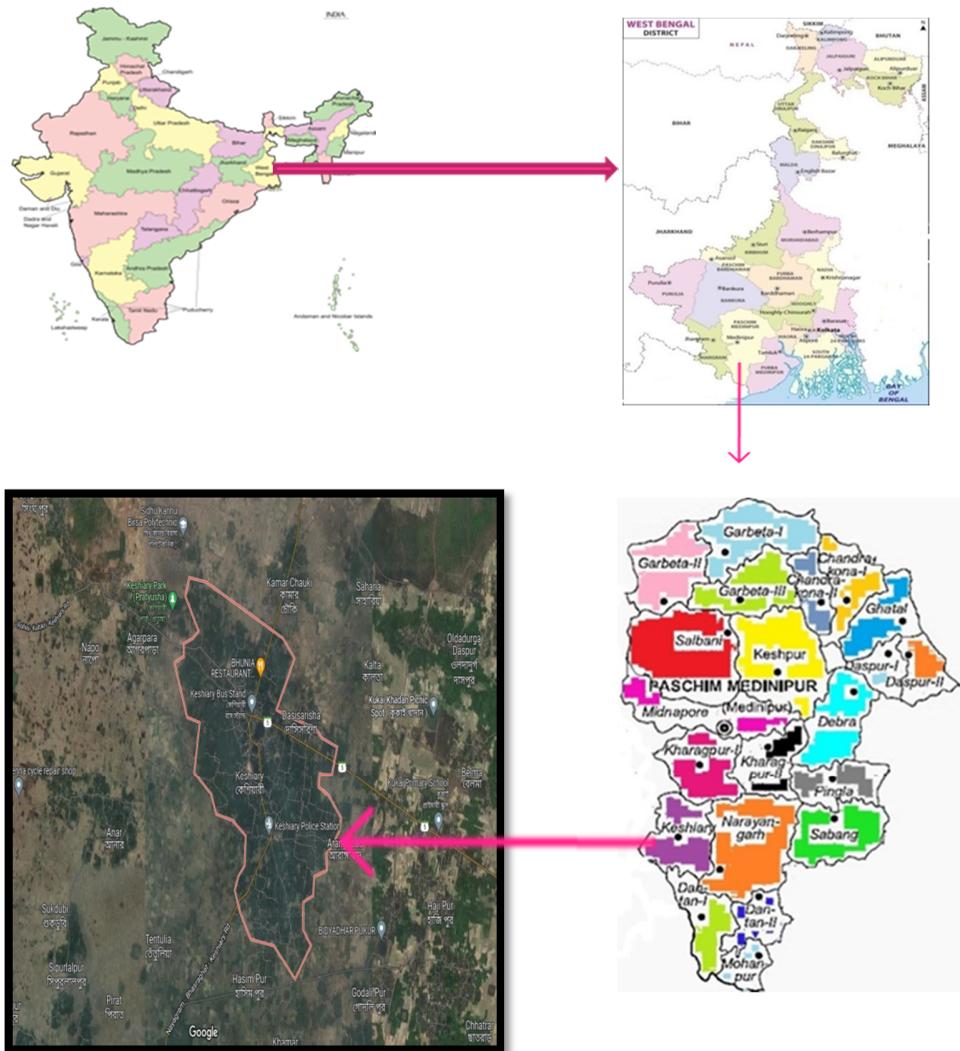


Fig. 1: Map showing the location of specimen collection sites for the present study

photograph the specimens were preserved in a wide mouth jar having 4% formalin solution (Bagra, 2010) and bring to the laboratory of Department of Zoology, Raja N.L. Khan Women’s College (Autonomous)

21.5cm and weight 42 gram) is alive and keeping in aquarium. The updated checklist (Pahari et al., 2017, Kisku et al., 2017, Chanda, 2020, Chanda and Jana, 2021) of freshwater fishes from different localities of

the Paschim Medinipur has been studied. The related literature was collected by both online and offline searching. During online searching different databases Google, Web of Science etc. were considered using different key words. Classification of fish taxa follows Talwar and Jhingran (1991), Jayaram (2010) and the valid nomenclature of species was adopted as per the Catalogue of Fishes of the California Academy of Sciences (Eschmeyer et al. 2020).

Specimen collection site:

The fish species were collected from Keshiary Block of Paschim Medinipur (21° 45'N- 22° 57'N; 87° 03' E-87° 53' E) district, located in the laterite belt of West Bengal, India. Climatic conditions under the influence of South-West and North-East monsoon.

Results and Discussions

Present specimen was collected on eighth March, 2022 from a pond of Keshiary Block of Paschim Medinipur District in live condition and kept in aquarium of the Post Graduate Department of Zoology, Raja Narendra Lal Khan Women’s College (Autonomous) for further study. Golden color specimen (Fig. 2) was analyzed morphometrically (Table-1) and meristically (Table-2) for proper identification. Identification was done following scheme of classification of Talwar and Jhingran (1991). Specimen is *Heteropneustes fossilis* (Bloch, 1794) belongs to family Heteropneustidae of

order Siluriformes. The coloration of the body is fairly golden and dorsal fin is reddish in color (Fig.2). Eyes are reddish color with a circular white tissue around the eye ball (Fig. 3).

Table-1: Morphometric characters (Fig.2)

1.	Total length	21.5cm
2.	Fork shape	Rounded
3.	Standard length	19.0 cm
4.	Head length	3.5
5.	Head depth	1.5
6.	Eye diameter	0.3
7.	Snout length	1.0
8.	Pre dorsal length	6.5
9.	Pre pectoral length	2.5
10.	Pre pelvic length	6.2
11.	Pre anal length	7.8
12.	Dorsal fin length	1.8
13.	Pectoral fin length	1.4
14.	Pelvic fin length	1.2
15.	Anal fin length	10.2
16.	Caudal fin length	2.4
17.	Body depth	2.5
18.	Pre orbital length	0.6
19.	Post orbital length	1.3
20.	Lower jaw length	0.9
21.	Upper jaw length	0.8
22.	Head wide	2.5

Table-2: Meristic characters

1	Dorsal fin rays	8
3	Pectoral fin rays	1+8
4	Pelvic fin rays	6
5	Anal fin rays	63
6	Caudal fin rays	16

(Linnaeus, 1758) from Midnapur is the latest reported albino catfish from the study area. Beside these, albinism in Indian catfishes was also reported by Gupta and Bhoumik (1958) for *Arius jella* Day, 1877 From Diamond Harbor, West Bengal.



Fig.2A: Live specimen of *Heteropneustes fossilis* (Bloch, 1794)

Present report is the second record of albino *Heteropneustes fossilis* (Bloch, 1794) from India and first report from West Bengal. Baruha in 1966 reported albino freshwater catfish, *Heteropneustes fossilis* (Bloch, 1794) from Assam for the first time. There is no record of albino stinging catfish from West Bengal except present one. Hora (1926) reported an albino *Clarias batrachus*

Conclusion

Albinism in catfish is an unusual phenomenon and very rare among the fish population. Therefore, record of albino *Heteropneustes fossilis* (Bloch, 1794) is certainly an evidence of the phenomenon from the present study area and it will encourage future researchers of the region for their further researches on the topics.

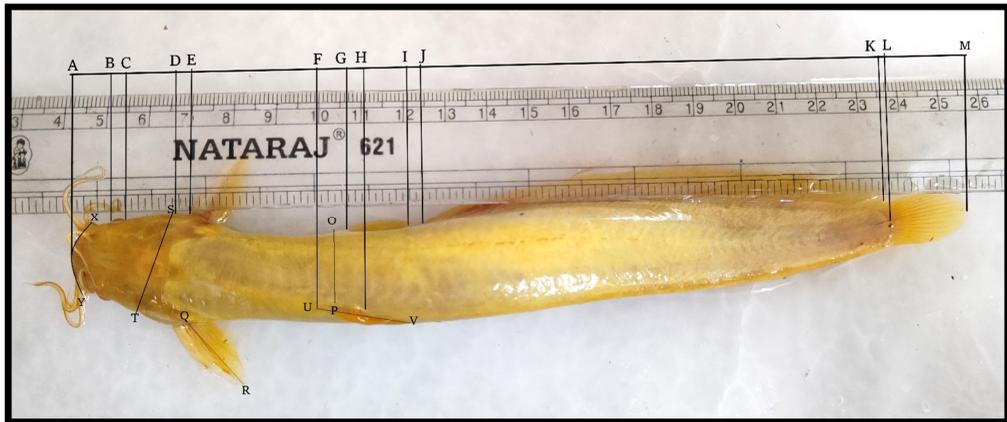


Fig.2B: Measurements, AM=Total length, AL=Standard length, AD=Head length, BC=Eye diameter, AB=Snout length, AF=Pre dorsal length, AE=Pre pectoral length, AG=Pre pelvic length, AJ=Pre anal length, UV=Dorsal fin length, QR=Pectoral fin length, GI=Pelvic fin length, JK=Anal fin length, LM=Caudal fin length, OP= Body depth, AC=Post orbital length, XY=Upper jaw length, ST=Head wide



Fig.3: Eye color and shape of golden *Heteropneustes fossilis* (Bloch, 1794)

Acknowledgements

Authors are expressing their deep sense of gratitude to the Department of Science &

Technology and Biotechnology, Government of West Bengal for sanctioning research grant in the form of a major research Project (ID: 350(Sanc.)/ST/P/S&T/17G-13/2018;

Dated-14.03.2019), under which present work has been conducted. Authors are also indebted to the Principal of Raja Narendra Lal Khan Women's College (Autonomous) and departmental faculty and staff members of PG Zoology for their constant inspiration and help to conduct sustainable research work for the benefit of science and society. One of the authors, A. Chanda is highly indebted to the Head of the Department of Environmental Science, Sambalpur University, Jyoti Bihar, Burla, Sambalpur, Odisha for giving him research facilities as Post-Doctoral Research Scholar.

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