

First report of *Kunbir telephoroides* Lameere, 1890 from eastern India

* Saurav Dwari, Amal Kumar Mondal

Plant Taxonomy, Biosystematics and Molecular Taxonomy Laboratory, UGC-DRS-SAP Department, Department of Botany & Forestry, Vidyasagar University, Midnapore, West Bengal, India

Abstract

The first photographic record of the *Kunbir telephoroides* Lameere, 1890 from Howrah district, West Bengal, India is presented in this paper. During the entomological survey in Howrah district of West Bengal this species photographed and identified first time for the state West Bengal as well as for the whole eastern India. *Kunbir telephoroides* Lameere, 1890, a long horn beetle recorded in October, 2016. A medium sized brownish species documented from herbaceous bushy area of Udaynarayanpur block of Howrah, West Bengal, India.

Keywords: photographic report, *Kunbir telephoroides*, long horned beetle, Howrah, West Bengal, Eastern, India

Introduction

Insect is the major part of the entire faunal species of the world and the most important group of animal kingdom [1]. The most varied insect order, Coleoptera (387,100 species), contains about 38 per cent of all insect species [2]. There are around 36,000 species of cerambycids described in more than 5,000 genera from eight subfamilies all over the world [3]. The Family name Cerambycidae created from the Greek word "Cerambyx" meaning "a horned beetle". Cerambycids are generally called as longhorned beetles, longicorns, Capricorns, round-headed borers, timber beetles etc [4, 5, 6]. The work on cerambycids was initiated in India in 1848 [7]. Author documented seven species for the first time from India. Then works on this group led by several workers [8, 9, 10, 11, 12, 13, 14]. The most inclusive information on Indian Cerambycidae is provided in "The Fauna of British India including Ceylon and Burma" by Gahan in 1906 [8]. More than 1200 species were documented from Indian region by 1940's [10] then near about 300 species were added by Breuning [11, 12, 13, 14]. In a recent study of Indian longhorns included 1536 longhorn beetle species classified under 72 tribes, 440 genera and eight subfamilies [15]. Among the 1536 Indian longhorn species, 592 are from North-Eastern states, 272 from N-India, 431 from S-India, 47 from Central India, 48 from W-India, 348 from E-India, 18 from NW-India, 57 from India orientalis and 121 from Indian Islands. The studies on cerambycids in West Bengal were started in the early twentieth century. In 2000 12 species of Cerambycidae reported from Buxa Tiger Reserve of which 7 species were new records from the state of West Bengal [16] then they worked on cerambycid fauna of Dooars in 2013 [17]. Ultimately Mitra *et al.* reported 146 species of cerambycid from West Bengal [18].

We present here the first photographic record of the *Kunbir telephoroides* Lameere, 1890 from Howrah district, West Bengal, India. It is the first report from west Bengal as well as eastern India. This is previously recorded from only Uttar Pradesh of North India and Chota Nagpur of Central India [15].

Material methods and study area

Sample was photographed through Pollard Walk Method [19, 20] at some stage in documentation of insects of Howrah district; West Bengal, India (Figure 1). On the day of 2016 (01.06.16) at around 11.22 hrs (11:22:54 AM) during the regular field of this district of West Bengal we photographed one individual of medium sized, brownish long horn beetle on small branches of herbaceous plant nearby agricultural fields, which is situated Udaynarayanpur block of Howrah district; West Bengal (extends between 22.690801 North latitude and 88.004215 East longitude) (Figure 2). Information on this species is based on observation from 11.22 AM to 12.05 PM. Specimen was photographed for further identification process with the help of High Resolution Digital Camera (Canon 550 D with EOS 18- 55mm lens) and the identification was identified using documents of Gahan (1906) [8] and confirmed by experts.

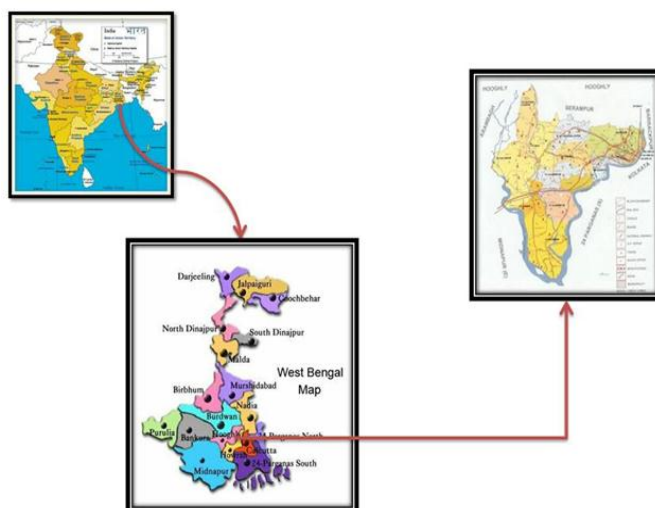


Fig 1: Howrah (District of record), West Bengal, India

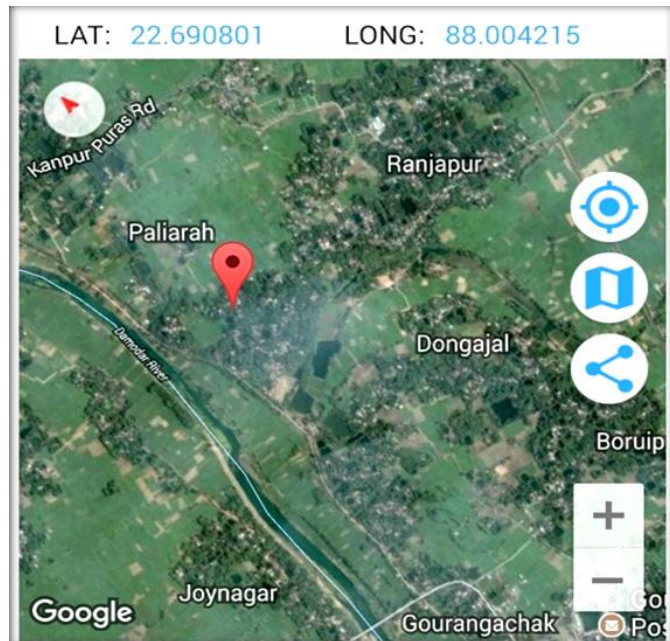


Fig 2: Study area of Howrah (District of record), West Bengal, India through Google map with Latitude and longitude

Results

Species description

Medium sized and brownish in colour, end part of body is blackish. Antennae are punctuate, blackish in colour and little shorter than body. Parts of hind legs (tibia and femora) are black and with flatten bulges. Rests of four legs are brownish in colour. Elytra are also punctures but not closely. (Figure 3)

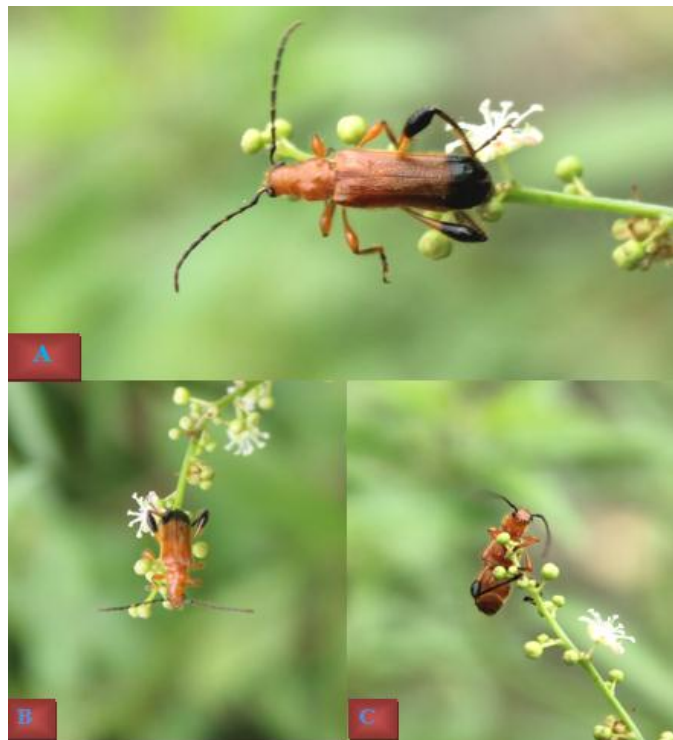


Fig 3: A. Dorsal view of *Kunbir telephoroides* Lameere, 1890; B. Dorsal view of *Kunbir telephoroides* Lameere, 1890; C. Ventral view of *Kunbir telephoroides* Lameere, 1890

Systematic position of *Kunbir telephoroides* Lameere, 1890

Class: Insecta

Order: Coleoptera

Family: Cerambycidae

Sub Family: Cerambycinae

Tribe: Stenopterini

Genus: *Kunbir*

Species: *Kunbir telephoroides* Lameere, 1890

Discussion

Early distributional range in India

Kunbir telephoroides Lameere, 1890 previously recorded from only Chotanagpur in Central India (Gahan, 1906)^[8] and Uttar Pradesh of North India and Chotanagpur in Central India (Kariyanna *et al.*, 2017)^[15].

Habitat structure of new locality

West Bengal is a state of India located its eastern part. Neighbour states of West Bengal are Odisha, Jharkhand, Bihar, Sikkim and Assam. On the eastern side the country Bangladesh is situated. Howrah is a small district of the West Bengal. The Area of Howrah is 467 km². The Howrah district lies between 22°48' N and 22°12' N latitudes and between 88°23' E and 87°50' E longitudes. The specimen actually photographed in Udaynarayanpur block, one of the 15 blocks of Howrah. The place of record lays 22.690801 North latitudes and 88.004215 East longitudes. The place is besides of agricultural lands and full of herbaceous bushy plants like *Croton bonplandianus* Baill. The place is nearer to Damodar River and it is East bank of this river. Annual normal rainfall in this district is 1461 millimeter per year. Annual maximum temperature varies between 32-39°C, whereas minimum temperature varies between 8-10°C.

Acknowledgement

We would like to express our heartfelt indebtedness to Sangamesh Hiremath, Trivandrum, India and Michael Geiser, London, United Kingdom for their Identification help and confirmation of this species. We would want to convey our gratitude to the honorable Dr. Sanjukta Mondal (Parui), HOD and Associate Professor, WBES, Post Graduate Department of Zoology, Lady Brabourne College, Kolkata-700017, West Bengal, India, for her consistence help during my study period. We also very much thankful to UGC for their laboratory support in the form of DRS-SAP - Phage 1 [2011-2016] in our work. I would like to express my thanks to all research scholars of our laboratory.

References

1. May PG. Flower selection and the dynamics of lipid reserves in two nectarivorous butterflies. *Ecology*. 1992; 73:2181-2191.
2. Zhang ZQ. An outline of higher-level classification and survey of taxonomic richness. *Zootaxa*, 3148, Magnolia Press. 2011; 7-12:206-207.
3. Monné ML, Monné MA, Wang Q. General morphology, classification and biology of Cerambycidae. In: Wang, Q. (Eds.), *Cerambycidae of the World: Biology and Pest Management*. CRC Press, Boca Raton, FL. 2017; 1-76.

4. Solomon JD. Guide to insect borers of North American broadleaf trees and shrubs. Agriculture Handbook 706, USDA Forest Service, Washington, DC. 1995; 735.
5. Monné MA, Bezark LG, Hovore FT. Checklist of the Cerambycidae, or longhorned beetles (Coleoptera) of the Western Hemisphere. 2007; Version 1. Available from: <https://www.zin.ru/animalia/coleoptera/rus/allpdf14.htm>, 2017.
6. Slipinski SA, Escalona HE. Australian Longhorn Beetles (Coleoptera: Cerambycidae). Introduction and Subfamily Lamiinae. CSIRO publishing, Collingwood. 2013; 1:484.
7. Westwood JO. In: Smith, W. (Eds.), A selection of some of the rarer and more beautiful species of insects natives of India and the adjacent islands, the greater portion of which are now for the first time described and figured. Cabinet of Oriental Entomology, London. 1848; 88.
8. Gahan CJ. The Fauna of British India, including Ceylon and Burma. Coleoptera. (Cerambycidae). C.T. Bingham, London. 1906; 1:329.
9. Stebbing EP. Family Cerambycidae. In: Indian Forest Insects of economic importance. London. 1914; 268-385.
10. Beeson CFC. The Ecology and Control of the Forest Insects of India and the Neighbouring Countries. Aswant Singh, The Vasant Press, Dehra Dun. 1941; 1007.
11. Breuning S. Catalogue des Lamiaires du Monde (Col. Céramb.). Verlag des Museums G. Frey, Tutzing bei München. 1960a; 3:109-182.
12. Breuning S. Catalogue des Lamiaires du Monde (Col. Céramb.). Verlag des Museums G. Frey, Tutzing bei München. 1963a; 7:463-555.
13. Breuning S. Neue Lamiiden aus dem Museum G. Frey (Col. Cerambycidae). Entomologischen Arbeiten aus dem Museum G. Frey, Tutzing bei München. 1964a; 15(1):91-97.
14. Breuning S. Catalogue des Lamiaires du Monde (Col. Céramb.). Verlag des Museums G. Frey, Tutzing bei München. 1966a; 9:659-765.
15. Kariyanna B, Mohan M, Gupta R, Vitali F. The checklist of longhorn beetles (Coleoptera: Cerambycidae) from India Zootaxa. 2017; 4345(1):001-317
16. Saha S, Raychaudhuri D. Lammiids (Cerambycidae) of Buxa Tiger reserve, Jalpaiguri, West Bengal, Insect Environment. 2000; 5(4):185.
17. Saha S, Özdikmen H, Biswas MK, Raychaudhuri D. ISRN Entomology. 2013, 8.
18. Mitra B, Majumder A, Das P, Chakraborti U. An updated list of Cerambycidae (Coleoptera) with three new records from West Bengal. Entomology and Applied Science Letters. 2015; 2(1):3-8.
19. Pollard E. A method for assessing changes in the abundance of butterflies. Biological Conservation. 1977; 12:115-153.
20. Pollard E, Yates TJ. Monitoring Butterflies for Ecology and Conservation Chapman and Hall. London. 1993; 274.