

## ON THE ELATERID FAUNA (COLEOPTERA) OF BUXA TIGER RESERVE (BTR), WEST BENGAL, INDIA

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**ABSTRACT:** Present study deals with the elaterid fauna of Buxa Tiger Reserve, West Bengal, India. 12 species of 8 genera belonging to 6 subfamilies of Elateridae are taxonomically evaluated. Among them, the genus *Camososternus* Latreille and 4 species viz. *Cardiophorus bucculatus* Candeze, *Camososternus gigas* Vats, *Heteroderes sericeus* Candeze and *Megapenthes variabilis* Vats & Chauhan are reported for the first time from the state while 7 others (marked by ●) are new from the study area.

**KEY WORDS:** Elateridae, BTR, West Bengal, India, new record.

Elateridae is the largest family of the series Elateriformia and is the 9<sup>th</sup> most diverse family (Lawrence, 1982). Approximately 10,000 species are known worldwide (Patwardhan & Athalye, 2008). These include 600 Indian species of 70 genera while West Bengal fauna is known by little more than 1/3 species and 1/2 of the genera (Chakraborty & Chakrabarti, 2006). So far, species of this family are not known from both polar zones and snow capped mountains (Laibner, 2000).

Click beetles may be large and colourful, but most are small to medium-sized (<2 cm), dull, somewhat depressed. Adults are usually elongate, flat, ovoid to shell shaped. Their colour varies from somber or blackish; some are very colourful, red, yellow or yellowish brown or reddish brown and often with bluish and greenish reflection and even metallic.

Since 1993 Buxa Tiger Reserve (latitudes of 26°30' to 26°55' North and longitudes 89°20' to 89°55' East of India) [for details visit [http://en.wikipedia.org/wiki/Buxa\\_Tiger\\_Reserve](http://en.wikipedia.org/wiki/Buxa_Tiger_Reserve)] is being explored by the members of Entomology Laboratory, University of Calcutta for insect and spider fauna.

Present communication is the first attempt to unfold the diversity spectrum of the click beetle fauna of the study area.

### MATERIAL AND METHODS

Materials are collected by hand picking, sweep net, beating the bushes, foliage and herbs, under stone and bark of trees and also by UV light trap from Buxa Tiger Reserve, Jalpaiguri, West Bengal, India.

Collection and preservation of elaterids are done as per the guidelines set by Sengupta (1986) and Chakraborty & Chakrabarti (2006).

## RESULTS

The 12 recorded species of 8 genera under 6 subfamilies are presented hereunder.

## Subfamily: Agrypninae

●*Agrypnus coenosus* (Hope, 1831)

*Elater coenosus* Hope, 1831, In: J.E. Gray, Zoological Miscellany, Part I: 25.

*Agrypnus coenosus* Hope, 1843, Ann. Mag. Nat. Hist. (I) 11: 63.

**Material examined:** 1 male, **Newland**, Coll. D. Raychaudhuri, 17.v.1997.

**Distribution:** India: West Bengal; Nepal.

●*Agrypnus jurulosus* (Candeze, 1889)

*Lacon jurulosus* Candeze, 1889, Annl. Soc. Ent. Belg., 33: 73.

*Agrypnus jurulosus* Von Hayek, 1973, Bull. Br. Mus. Natn. Hist. Ent. Suppl., 20: 172.

**Material examined:** 1 male, **Panbari**, Coll. D. Raychaudhuri, 20.v.1995; 1 male, **Nimati**, Coll. S. Saha, 22.v.1997; 1 male, **South Rydak**, Coll. S. Sarkar, 08.iv.2009; 1 male, **Poro**, Coll. S. Sarkar, 13.iv.2010.

**Distribution:** India: Bihar, Sikkim, Tripura, Uttar Pradesh, West Bengal.

●*Agrypnus sinensis* (Candeze, 1857)

*Lacon sinensis* Candeze, 1857, Mem. Soc. r. Sci. Liege, 12: 139.

*Agrypnus sinensis*, Von Hayek, Bull. Br. Mus. Natn. Hist. (Ent.) Suppl., 20: 212.

**Material examined:** 1 female, **Rajabhatkhawa**, Coll. S. Saha, 08.v.1995, Light Trap; 1 female, **Hatipota**, Coll. D. Raychaudhuri, 08.iv.2009, Light Trap; 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 07.iv.2010, Light Trap.

**Distribution:** India: West Bengal; China, Indonesia, Myanmar.

●*Lanelater cinereus* (Candeze, 1857)

*Agrypnus cinereus* Candeze, 1857, Mem. Soc. r. Sci. Liege, 12: 40.

*Lanelater cinereus* Arnett, 1952, Wasmann J. Bio., 10: 105.

**Material examined:** 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 24.v.2009, Light Trap.

**Distribution:** India: Sikkim, West Bengal.

●*Lanelater fuscipes* (Fabricius, 1775)

*Elater fuscipes* Fabricius, 1775, Systema entomologiae: 211.

*Lanelater fuscipes* Arnett, 1952, Wasmann J. Bio., 10: 105.

**Material examined:** 1 male, **Rajabhatkhawa**, Coll. S. Saha, 22.v.1995.

**Distribution:** India: Karnataka, New Delhi, Sikkim, TamilNadu, Uttar Pradesh, West Bengal; Indo-China, Madagascar, Reunion Island, Srilanka.

●*Lanelater kalimpongensis* Chakraborty & Chakrabarti, 2006

*Lanelater kalimpongensis* Chakraborty & Chakrabarti, 2006, Rec. Zool. Surv. India, Occ. Paper No. 254: 68.

**Material examined:** 1 female, **Nimati**, Coll. S. Saha, 22.iii.1997; 1 female, **Rajabhatkhawa**, Coll. D. Raychaudhuri, 29.iii.2002, Light Trap; 1 female, **Damanpur**, Coll. S. Saha, 12.iv.2009, Light Trap; 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 04.iv.2010, Light Trap; 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 07.iv.2010, Light Trap; 1 female, **Rajabhatkhawa**, Coll. S. Sarkar, 08.iv.2010, Light Trap.

**Distribution:** India: West Bengal.

## Subfamily: Cardiophorinae

●*Cardiophorus bucculatus* Candeze, 1860

*Cardiophorus bucculatus* Candeze, 1860, Mem. Soc. r. Sci. Liege, 15: 211.

**Material examined:** 2 female, **Damanpur**, Coll. D. Raychaudhuri, 27.iii.2003, Light Trap; 1 female, **Damanpur**, Coll. S. Sarkar, 15.iv.2009, Light Trap; 1 female, **Rajabhatkhawa**, Coll. S. Sarkar, 05.iv.2010, Light Trap.

**Distribution:** India: Haryana, Uttar Pradesh, West Bengal.

**Subfamily: Chalcolepidiinae**

***Camososternus gigas* Vats, 1991**

*Camososternus gigas* Vats L. K, 1991, Systematics of Elateridae, Final technical Report: 95.

**Material examined:** 1 male, **Rajabhatkhawa**, Coll. S. Saha, 24.v.2009, Light Trap; 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 11.iv.2010, Light Trap.

**Distribution:** India: Haryana, Uttar Pradesh, West Bengal.

**Note:** The species is perceived sensu Vats 1991.

**Subfamily: Conoderinae**

***Heteroderes sericeus* Candeze, 1859**

*Heteroderes sericeus* Candeze, 1859, Mem. Soc. r. Sci. Liege, 15: 357.

**Material examined:** 1 female, **Rajabhatkhawa**, Coll. D. Raychaudhuri, 18.v.1995, Light Trap; 2 males, **Rajabhatkhawa**, Coll. D. Raychaudhuri, 19.v.1995, Light Trap; 1 female, **Rajabhatkhawa**, Coll. D. Raychaudhuri, 20.v.1995, Light Trap; 1 female, **Rajabhatkhawa**, Coll. D. Raychaudhuri, 21.v.1995, Light Trap; 1 female, **Rajabhatkhawa**, Coll. S. Saha, 22.v.1995, Light Trap; 4 females & 1 male, **Rajabhatkhawa**, Coll. S. Saha, 26.v.1995, Light Trap; 3 females & 1 male, **Jayanti**, Coll. D. Raychaudhuri, 24.v.1996, Light Trap; 1 female, **Rajabhatkhawa**, Coll. S. Saha, 16.ix.1996, Light Trap; 4 females & 4 males, **South Bholka**, Coll. S. Saha, 19.v.1997; 1 female, **Poro**, Coll. D. Raychaudhuri, 17.iv.2002; 1 female, **Kalchini**, Coll. S. Saha, 24.v.2002, Light Trap; 1 female, **Poro**, Coll. D. Raychaudhuri, 17.vii.2002, Light Trap; 1 male, **Damanpur**, Coll. S. Sarkar, 05.iv.2009, Light Trap; 1 female, **Rajabhatkhawa**, Coll. S. Sarkar, 13.iv.2009; 2 males, **Damanpur**, Coll. S. Sarkar, 15.iv.2009, Light Trap; 1 male, **Damanpur**, Coll. S. Sarkar, 16.iv.2009, Light Trap; 4 females & 2 males, **Rajabhatkhawa**, Coll. S. Sarkar, 24.v.2009, Light Trap; 3 females & 6 males, **Nimati**, Coll. S. Sarkar, 27.v.2009, Light Trap; 4 females & 2 males, **Nimati**, Coll. S. Sarkar, 28.v.2009, Light Trap; 10 females & 8 males, **Nimati**, Coll. S. Sarkar, 29.v.2009, Light Trap; 1 female, **Garam**, Coll. S. Sarkar, 30.v.2009; 1 female & 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 13.iv.2010, Light Trap; 1 female & 2 males, **Rajabhatkhawa**, Coll. S. Sarkar, 15.ix.2010, Light Trap; 1 male, **Silbunglow**, Coll. S. Sarkar, 01.xi.2010, Light Trap.

**Distribution:** India: Himalaya, Uttar Pradesh, West Bengal.

**Subfamily: Elaterinae**

**•*Ludigenus kalpanas* Chakraborty & Chakrabarti, 2006**

*Ludigenus kalpanas* Chakraborty and Chakrabarti, 2006, Rec. Zool. Surv. India, Occ. Paper No. 254: 181.

**Material examined:** 2 females, **Rajabhatkhawa**, Coll. D. Raychaudhuri, 29.iii.2002, Light Trap; 1 male, **Newland**, Coll. S. Saha, 10.v.2002; 1 female, **Hatipota**, Coll. S. Sarkar, 08.iv.2009, Light Trap; 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 24.v.2009, Light Trap.

**Distribution:** India: West Bengal.

***Megapenthes variabilis* Vats & Chauhan, 1992**

*Megapenthes variabilis* Vats and Chauhan, 1992, J. ent. Res., 16 (1): 20

**Material examined:** 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 07.iv.2010, Light Trap; 1 female, **Rajabhatkhawa**, Coll. S. Saha, 11.iv.2010, Light Trap.

**Distribution:** India: Haryana, Himachal Pradesh, Uttar Pradesh, West Bengal.

**Subfamily: Melanotinae**

**•*Melanotus fuscus* (Fabricius), 1801**

*Elater fuscus* Fabricius, 1801, Syst. Eleuth, II: 228.

*Melanotus fuscus* Candeze, 1860, Mon. Elat., III: 335.

**Material examined:** 1 male, **Rajabhatkhawa**, Coll. D. Raychaudhuri, 29.iii.2002, Light Trap; 1 male, **South Rydak**, Coll. S. Saha, 09.iii.2003; 1 male, **Nimati**, Coll. S. Saha, 13.iii.2003; 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 05.iv.2010, Light Trap; 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 07.iv.2010, Light Trap; 1 male, **Rajabhatkhawa**, Coll. S. Sarkar, 11.iv.2010, Light Trap.

**Distribution:** India: Sikkim, Tripura, West Bengal; China, Indonesia, Laos, Myanmar, Sri Lanka, Thailand.

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