

Original Research Article

Longhorn Beetles (Cerambycidae: Coleoptera) of Bihar, India

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ABSTRACT

The longhorn beetles attracting more number of researcher due to their pest nature and diversity. The present study has consolidated longhorn beetle fauna of Bihar, which comprising 15 species, 14 genera, 11 tribes under three subfamilies. Among the subfamilies, the Cerambycinae and Lamiinae shares seven species each and Prioninae consist of one longhorn beetle species. The sal heartwood borer, *Hoplocerambyx spinicornis* (Newman, 1842), *Batocera rufomaculata* (Degeer, 1775), *Trirachys holosericeus* (Fabricius, 1787) are considered as the most devastating insect pests of forest in Bihar and adjacent states.

Keywords

Longhorn Beetles
(Cerambycidae:
Coleoptera)

Introduction

The longhorn beetles are known for their diversity and they are cosmopolitan in nature. Most of the cases both adult and grubs are pestiferous in nature by attacking various forest, plantation and fruit crop. The study of the longhorn beetles in between northern and eastern India is very poorly documented. Gahan (1906), Breuning, (1939, 1938 & 1953) and Majumder *et al.*, (2014 & 2015) have made the primary attempt to record the longhorn beetle species from this region. Kariyanna *et al.*, (2017) reported the all available longhorn beetles from India with their synonyms. The state contains 7.1 per cent of the forest cover in respect to its total land area. Most of the area contains a dry deciduous forest tree which harbour more number of the longhorn beetle species. The present study is an endeavour

to provide the complete document of longhorn beetles from India.

Catalogue of Longhorn Beetles of Bihar

Sub-family: Cerambycinae

Tribe: Achrysinini

Nortia J. Thomson, 1864: 252 (type sp.:
Nortia cavicollis J. Thomson, 1864).

Nortia fuscata Holzschuh, 2005

Synonyms: Nortia fuscata Holzschuh, 2005

Distribution: India (Bihar) & Nepal.

Tribe: Cerambycini

Hoplocerambyx J. Thomson, 1864: 229
(type sp.: *Hammaticherus spinicornis*
Newman, 1842)

Hoplocerambyx spinicornis (Newman,
1842)

Synonyms: *Hammaticherus spinicornis*
Newman, 1842

Cerambyx? morosus Pascoe, 1857

Hoplocerambyx spinicornis Thomson, 1864

Hoplocerambyx relictus Pascoe, 1866

Hoplocerambyx morosus Pascoe, 1869

Haplocerambyx minor Pic, 1923

Hoplocerambyx spinicornis var. *minor* Pic,
1946

Distribution: India (Uttar Pradesh:
Allahabad, Terai Forest; Assam; Arunachal
Pradesh; West-Bengal; Madhya Pradesh,
Bihar), Nepal; Tenasserim; South
Afghanistan; Penang; Singapore; Sumatra;
Borneo; Philippines Is., Laos, Bhutan,
Pakistan, Sunda Islands & China: Taiwan.
(Fig. 1.)

[https://upload.wikimedia.org/wikipedia/com
mons/f/fd/Hoplocerambyx_spinicornis_%28
Newman%2C_1842%29_male_%28393467
5836%29.jpg](https://upload.wikimedia.org/wikipedia/commons/f/fd/Hoplocerambyx_spinicornis_%28Newman%2C_1842%29_male_%283934675836%29.jpg)

Neoplocaederus Sama, 1991: 123 (type sp:
Plocaederus cyanipennis J. Thomson, 1860)

Neoplocaederus ferrugineus (Linné, 1758)

Synonyms: *Cerambyx ferrugineus* Linné,
1758

Cerambyx gigas Fabricius, 1787: 132

Hammaticherus nitidus White, 1853

Cerambyx versutus Pascoe, 1859

Plocaederus ferrugineus Gahan, 1890

Plocaederus ferrugineus var. *niger* Gahan,
1890

Distribution: India (Kerala: Trivandrum;
Indian orientalis, WB; Madhya Pradesh) &
Sri Lanka (Fig. 2.).

Trirachys Hope, 1845: 11 (type sp.:
Trirachys orientalis Hope, 1841)

Trirachys holosericeus (Fabricius, 1787)

Synonyms: *Ceramryx holosericeus*
Fabricius, 1787

Hammaticherus holosericeus White, 1853

Pachydissus velutinus Thomson, 1865

Pachydissus similis Gahan, 1890

Neocerambyx similis Bates, 1891

Aeolesthes holosericeus Gahan, 1891

Aeolesthes holosericea Pic, 1935

Aeolesthes (*s. str.*) *holosericea* Gressitt &
Rondon, 1970

Aeolesthes (*Aeolesthes*) *holosericea*
Makihara *et al.*, 2008

Distribution: India (Arunachal Pradesh;
Jammu; Bihar; Maharashtra: Kolhapur
District.), China: Henan, Shaanxi, Fujian,
Guangdong, Hongkong, Hainan, Guangxi,
Sichuan, Yunnan; Myanmar, Laos,
Thailand, Sri Lanka, Vietnam: Thua Thien-
Hue & Indonesia (Fig. 3.).

Tribe: Callichromatini

Pachyteria Audinet-Serville, 1833: 553 (type sp.: *Cerambyx fasciatus* Fabricius, 1775).

Pachyteria fasciata (Fabricius, 1775)

Synonyms: *Cerambyx fasciatus* Fabricius, 1775

Cerambyx populneus Schröter, 1776

Pachyteria fasciata Audinet-Serville, 1833

Distribution: India (India orientalis, Tamil Nadu; Nagapattinam; West-Bengal; Assam; Jharkhand: Ranchi; Chhattisgarh; Bihar; Maharashtra; Odisha; Chota Nagpur; Himalaya), Surinam, Cambodia Himalayas; Tranquebar; Sri Lanka; Thailand, Vietnam, Nepal & China (Fig. 4.).

Tribe: Clytini

Chlorophorus Chevrolat, 1863: 290 (type sp.: *Callidium annulare* Fabricius, 1787)

Chlorophorus annularis (Fabricius, 1787)

Synonyms: *Cerambyx (Callidium) annularis* Gmelin, 1790

Clytus annularis Fabricius, 1801

Callidium bidens Weber, 1801

Clytus annulosus Pascoe, 1864

Clytanthus annularis Pascoe, 1866

Caloclytus annularis Gahan, 1906

Chlorophorus annularis v. *subnebulosus* Pic, 1943

Rhaphuma annularis Ohbayashi, 1963

Chlorophorus (s. str.) *annularis* Özdikmen, 2011

Distribution: India (all over India; Arunachal Pradesh, Bihar: Patna, Pusa), New Guinea, Nepal: Churibass-Sanguridara Pass, Taplejung; Sri Lanka, Myanmar, Thailand, Malaya, Vietnam, Laos, Hainan Is., Sunda Is., China, Taiwan, Japan, Korea, Cambodia, Philippines, Introduced in United States & Brasil (Fig. 5.).

Tribe: Hesperophanini

Stromatium Audinet-Serville, 1834: 80 (type sp.: *Callidium barbatum* Fabricius, 1775)

Stromatium barbatum (Fabricius, 1775)

Synonyms: *Callidium barbatum* Fabricius, 1775

Cerambyx (Callidium) tranquebaricus Gmelin, 1790

Callidium variolosum Fabricius, 1798

Callidium funestum Boisduval, 1835

Stromatium barbatum Castelnau, 1840

Distribution: India (Tamil Nadu: Nagapattinam; Manipur; Arunachal Pradesh; Pondicherry: Mahe; Karantaka: Bellary; Uttar Pradesh: Asansole, Kunbir; India Orientalis; Andaman Island; Madhya Pradesh, Bihar: Patna), New Holland, France Island, Myanmar; Mauritius; Bourbon; Madagascar, Népal, Africa Orientalis, Bhutan, Bangladesh, Sri Lanka, Australia & Oman: Dhofar (Fig. 6.).

Sub-family: Lamiinae

Tribe: Batocerini

Batocera Dejean, 1835: 341 (type sp.:
Cerambyx rubus Linné, 1758)

Batocera rufomaculata (Degeer, 1775)

Synonyms: *Cerambyx rufomaculatus*
Degeer, 1775

Cerambyx rubiginosus Voet, 1778

Cerambyx (Stenocorus) cruentatus Gmelin,
1790

Batocera chlorinda Thomson, 1857

Batocera thysbe Thomson, 1878

Batocera polli Gahan, 1890

Batocera diana Nonfried, 1892.

Batocera rubra Ballou, 1916

Batocera rufomaculata m. flavescens
Breuning, 1950

Batocera rufomaculata Breuning, 1957

Batocera (Batocera) rufomaculata Duffy,
1960

Batocera rufomaculata rufomaculata
Ambrus & Grosser, 2012

Distribution: India (India Orientalis; Assam;
Andaman Island; Tamil Nadu;
Tiruchinapalli; Arunachal Pradesh; West
Bengal, Bihar : Pusa, Patna), Tibet, China,
Malaysia, Sri Lanka, Pakistan, Myanmar.
Introduced in Mauritius, Rodriguez,
Palaeartic Region: South Turkey: Adana,
Syria, Israel, Palestine; Ethiopian Region:
Libia, East Africa, Mascareignes, La
Réunion, Comores & Madagascar; West

Indies: Puerto Rico, Barbados & Virgin Is.:
St. Croix, St. Thomas, Tortola (Fig. 7.).

Tribe: Agapanthiini

Pothyne J. Thomson, 1864: 97 (type sp.:
Pothyne variegata J. Thomson, 1864)

Pothyne convexifrons Gardner, 1930

Synonyms: *Pothyne convexifrons* Gardner,
1930

Distribution: India (Uttarakhand: Dehra
Dun; Bihar: Pusa; Odisha).

Tribe: Mesosini

Agelasta Newman, 1842c: 288 (type sp.:
Agelasta transversa Newman, 1842)

Agelasta (Dissosira) Pascoe, 1865: 124 (type
sp.: *Agelasta catenata* Pascoe, 1862)

Agelasta (Dissosira) postvittata Breuning,
1939

Synonyms: *Agelasta (Dissosira) postvittata*
Breuning, 1939

Distribution: India (WB, Bihar: Patna).

Tribe: Pteropliini

Leptomesosella Breuning, 1939c: 198 (type
sp.: *Leptomesosella uniformis* Breuning,
1939).

Leptomesosella uniformis Breuning, 1939

Synonyms: *Leptomesosella uniformis*
Breuning, 1939

Distribution: India (Bihar: Pusa).

Pterolophia Newman, 1842f: 370 (type sp.:

Mesosa bigibbera Newman, 1842)

Pterolophia approximata Breuning, 1938

Synonyms: Pterolophia approximata
Breuning, 1938

Distribution: India (Bihar: Pusa).

Pterolophia servilis Breuning, 1938

Synonyms: Pterolophia servilis Breuning,
1938

Distribution: India (Bihar: Pusa).

Tribe: Saperdini

Glenea Newman, 1842d: 301 (type sp.:
Sphenura novemguttata Laporte de
Castelnau)

Glenea nigerrima Breuning, 1953

Synonyms: Glenea (s. str.) nigerrima
Breuning, 1953

Glenea nigerrima Cools, 1993

Distribution: India (Bihar: Chapra).

Sub-family: Prioninae

Tribe: Acanthophorini

Acanthophorus Audinet-Serville, 1832: 152
(type sp.: *Prionus serraticornis* Olivier,
1795)

Acanthophorus serraticornis (Olivier, 1795)

Synonyms: Acanthophorus (Acanthophorus)
serraticornis Lameere, 1910

Acanthophorus serraticornis Audinet-
Serville, 1832

Prionus damicornis Bergier, 1941

Prionus serraticornis Olivier, 1795

Distribution: India (India Orientalis;
Pondicherry; Tamil Nadu: Madras;
Karnataka: Bangalore, Mysore;
Maharashtra; Kerala: Trivandrum;
Chhattisgarh; Andaman Island; Bihar;
Madhya Pradesh; Odisha; Sikkim) & Sri
Lanka (Fig. 8.).



Fig.1 *Hoplocerambyx spinicornis*
(Newman, 1842)



Fig.2 *Neoplocaederus ferrugineus*
(Linné, 1758)



Fig.3 *Trirachys holosericeus*
(Fabricius, 1787)



Fig.4 *Pachyteria fasciata* (Fabricius, 1775)



Fig.5 *Chlorophorus annularis*
(Fabricius, 1787)



Fig.6 *Stromatium barbatum* (Fabricius, 1775)



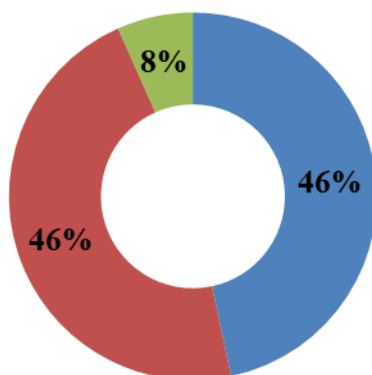
Fig.7 *Batocera rufomaculata*
(Degeer, 1775)



Fig.8 *Acanthophorus serraticornis*
(Olivier, 1795)

Figure 9. Sub-family wise species diversity of Longhorn beetles of Bihar

■ Cerambycidae ■ Lamiinae ■ Prioninae



Results and Discussion

From Bihar total of 15 species of longhorn beetles were documented. They are classified into 14 genera, 11 tribes, and three sub-families. Among the reported species, cerambycinae and lamiinae contributes equal number of species diversity (46) and prioninae holds very poor species diversity (Figure 9). The report of Kariyanna *et al.*, (2017) comprises 10 species of longhorn beetles from Bihar. The species like; *Batocera rufomaculata* (Degeer, 1775), *Stromatium barbatum* (Fabricius, 1775), *Chlorophorus annularis* (Fabricius, 1787), *Hoplocerambyx spinicornis* (Newman, 1842) and *Trirachys holosericeus* (Fabricius, 1787) were newly added to the checklist distribution. This study is depicting that the study of longhorn beetle from Bihar is still in budding stage and this needs to be focused by scientific community.

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