



An update on the Diversity, Distribution and Zoo-geographical notes on Longhorn Beetles (Cerambycidae: Coleoptera) of North-East India

Bulganin Mitra, Subhrajit Bhaumik, Udipta Chakraborti and Kaushik Mallick

*Zoological Survey of India,
Prani Vigyan Bhawan, M-Block, New-Alipore,
Kolkata-700053, West Bengal, INDIA*

(Corresponding author: Udipta Chakraborti)

(Received 15 January 2017, Accepted 24 March, 2017)

(Published by Research Trend, Website: www.researchtrend.net)

ABSTRACT: Wood boring is carried out by various insect groups either to obtain food or for the protection of their eggs, larvae and pupae. Among the wood boring insects of the freshly felled logs, the long-horned beetles or roundhead borers belonging to the order Coleoptera and family Cerambycidae are found in large varieties and abundance in the tropics and are also very successful in colonising in the hills of North-East India. Present communication reports an update of 562 species under 211 genera of 56 tribes belonging to 5 subfamilies of the family Cerambycidae from 8 states of North-East India *i.e.* Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, Sikkim and Tripura. The present study also reveals that longhorn beetles of North-East India are mostly enriched with Oriental species (365) followed by Palearctic (174), Australasian (10) and Afrotropical species (5) and rest from the other zoogeographical regions.

Keywords: Longhorn beetle, Cerambycidae; North-East India.

INTRODUCTION

The North-East India is popularly known as “Gateway of Indian insect fauna”. Therefore, this area is one of the richest in biodiversity with high in fauna species endemism. But, meagre and scattered information on the taxonomic diversity and distribution of longhorn beetles of this highly sensitive zone of India are available. No holistic approach has also been made so far to update the scientific nomenclature of cerambycids in the light of modern classification. Taxonomic knowledge of these beetles till date is based on their stray collections only from the eight states of North-East India. Keeping in view an attempt has been made to explore published literature, compiled and updated information on the reported species of long horn beetles from the eight states of North-East India *i.e.* Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

The family Cerambycidae of the Order Coleoptera is currently classified under the superfamily Chrysomeloidea, along with the families Vesperidae and Distenidae (Hunt *et al.*, 2007; Szeoke and Hegyi, 2002). The taxonomy in Cerambycidae *sensu lato* is not well established (Hunt *et al.* 2007; Lawrence and Newton, 1995; Napp 1994; Özdikmen 2006; Özdikmen 2008; Sykorova 2008). Of them, only 8 subfamilies are reported from India and 5 subfamilies from North-East India. The most pioneering taxonomic and biological

investigations on cerambycid beetles in India were initiated in the twentieth century. The voluminous works on the cerambycid fauna in North-East India were mostly done by Gahan (1895, 1906) and Breuning (1936, 1938, 1958, 1965). Hope (1839, 1843, 1845b) made some valuable contributions to the cerambycid fauna of Assam valley. Afterwards, Kapur (1954); Sengupta and Sengupta (1981); Basak and Biswas (1985); Mukhopadhyay and Biswas (2000a, 2000b); Saha and Ray Chaudhuri (2000); Mukhopadhyay and Halder (2003, 2004); Singh *et al.* (2010); Mukhopadhyay (2011); Saha *et al.* (2013); Mitra and Majumder (2014); Mitra *et al.* (2016a, 2016b, 2016c, 2016d) and Thakur *et al.* (2012) also enriched the cerambycid fauna of North-East India. Several more species have been reported from India and adjacent countries by Holzschuh (1999, 2003); Ghate *et al.* (2012); Agarwala and Bhattacharjee (2012); Ghate and Mitra (2013) and Gressitt *et al.* (1970) where they have included the species from the states of North-East India.

This present communication is a compilation of information from earlier published works and reports and updated listing of 562 species under 211 genera of 56 tribes belonging to 5 subfamilies of the family Cerambycidae from 8 states of North-East India. Among them, the subfamily Lamiinae shares maximum species (389) and least by the subfamily Spondyliinae (1).

MATERIALS AND METHODS

A. Study area

The North-East India, (22°N and 29°5'N latitude and 88°E and 97°30'E longitude) spread over 2,62,379 km² and occupies 7.7% of India's total geographical area, represents the transition zone between the Indian, Indo-Malayan and Indo-Chinese biogeographic regions and a

meeting place of the Himalayan Mountains and Peninsular India. The region is made up of eight states *i.e.* Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, Sikkim and Tripura and is endowed with a wide range of physiography and eco-climatic conditions (Fig. 1).

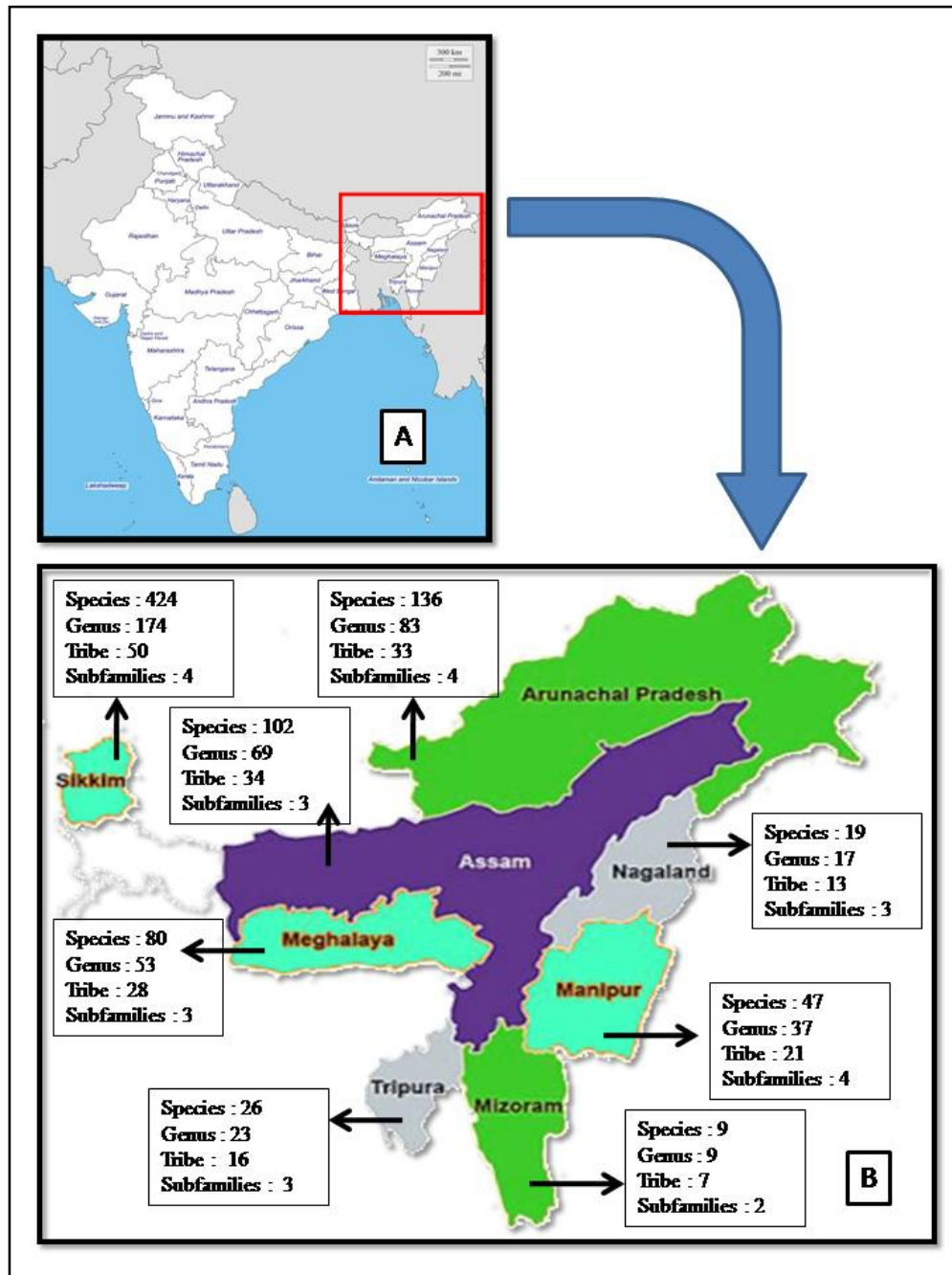


Fig. 1. Map of the Study area. A, Map of India; B, Map of North-East India and Species composition (State-wise).

RESULTS AND DISCUSSION

This present communication reports 562 species under 211 genera belonging to 56 tribes of 5 subfamilies of the family Cerambycidae from North-East Indian states (Table 1). Among them, the subfamily Lamiinae is more diverse with 389 species, 136 genera and 24 tribes followed by Cerambycinae with 139 species, 55 genera and 23 tribes, Prioninae with 27 species 13 genera and 6 tribes, Lepturinae with 6 species, 6 genera and 2 tribes and Spondylidinae with 1 species 1 genus and 1 tribe (Fig. 2). Considering the cerambycid beetles diversity in eight states of North-East India, Sikkim represented by 74.42 percent of total reported species, followed by Arunachal Pradesh (24.33%), Assam

(18.11%), Meghalaya (14.56%), Manipur (8.33%), Tripura (4.61%), Nagaland (3.37%) and Mizoram (1.6%) (Fig. 3). Among the reported species of NE India, only 3 species, namely, *Batocera rufomaculata*, (De Geer, 1775), *Aristobia reticulator* (Fabricius, 1781) and *Pseudonemophas versteegii* (Ritsema, 1881) are very common and reported from all the eight states. A lone species, *Thysia wallichii* Hope, 1831 is only found to be distributed in 6 states. 19 species are found to be distributed in 5 states, 15 species in 4 states, 30 species in 3 states and 70 species in 2 states. But the majority species (424 species) are found to be distributed in single state only (Table 1).

Table 1: An updated checklist of Cerambycid beetle species recorded by different researchers from North-East India with their Zoogeographic realm wise distribution.

SL. NO.	SPECIES NAME	STATES								REALMS	
		1	2	3	4	5	6	7	8		
Subfamily SPONDYLIDINAE											
TRIBE ASEMINI											
1	<i>Cephalallus oberthuri</i> Sharp, 1905							+			P,O
Subfamily LEPTURINAE											
TRIBE LEPTURINI											
2	<i>Ischnostrangalis manipurensis</i> (Gahan, 1906)	+									P,O
3	<i>Paranaspia frainii</i> (Fairmarie, 1897)								+		O
4	<i>Pyrocalymma pyrochroides</i> Thomson, 1864	+							+		P,O
TRIBE XYLOSTEINI											
5	<i>Formosotoxotus masatakai</i> (Ohbayashi, 2007)								+		O
6	<i>Peithona prionoides</i> Gahan, 1906								+		P,O
7	<i>Palaeoxylosteus kurosawai</i> Ohbayashi & Shimomura, 1986								+		O
Subfamily PRIONINAE											
TRIBE AEGOSOMATINI											
8	<i>Aegolipton marginale</i> (Fabricius, 1775)							+			P,O
9	<i>Aegosoma katsurai</i> (Komiya, 2000)							+			P,O
10	<i>Aegosoma ornaticolle</i> White, 1853	+				+	+	+	+		P,O
11	<i>Baraliopteron maculosum</i> Thomson, 1857						+	+	+	+	P,O
12	<i>Dinoprionus cephalotes</i> Bates, 1875	+					+	+			O
13	<i>Nepiodes bowringi</i> Gahan, 1894				+		+	+	+		O
14	<i>Nepiodes costipennis costipennis</i> (White, 1853)	+				+	+	+	+		P,O
15	<i>Nepiodes costipennis multicaeratus</i> (Fuchs, 1966)						+				O
16	<i>Spinimegopsis buckleyi</i> (Gahan, 1894)						+				O
17	<i>Spinimegopsis delahayei</i> Komiya & Drumont, 2007						+				P,O
18	<i>Spinimegopsis nepalensis</i> (Hayahi, 1979)							+			P,O
19	<i>Spinimegopsis tibialis</i> (Wiedemann, 1853)						+	+			P,O
TRIBE ANACOLINI											
20	<i>Sarmydis antennatus</i> Pascoe, 1867	+				+	+	+	+		O
TRIBE EURYPODINI											
21	<i>Palaeomegopsis lameerei</i> Boppe, 1911)								+		P,O
TRIBE MACROTOMINI											
22	<i>Anomophysia inscripta</i> (Waterhouse, 1884)					+	+				O
23	<i>Anomophysia elliotti</i> (Waterhouse, 1884)							+			P,O
24	<i>Anomophysia plagiata</i> (Waterhouse, 1884)						+	+			O,P
25	<i>Bandar pascoei</i> (Lansberge, 1884)			+			+				O

SL. NO.	SPECIES NAME	STATES								REALMS
		1	2	3	4	5	6	7	8	
Subfamily PRIONINAE										
TRIBE PRIONINI										
26	<i>Dorysthenes (Lophosternus) huegeli</i> (Redtenbacher, 1848)	+					+	+	+	O
27	<i>Dorysthenes (Paraphrus) granulosis</i> Thomson, 1861							+		P,O
28	<i>Dorysthenes (Lophosternus) indicus</i> (Hope, 1831)	+				+	+	+		O,P
29	<i>Dorysthenes buquetii</i> Guerin-Meneville, 1844					+			+	O,N
30	<i>Dorysthenes (Lophosternus) zivetta</i> Thomson, 1877							+		P,O
31	<i>Prionomma (Ancyloprotus) bigibbosum</i> (White, 1853)	+				+		+	+	O
32	<i>Prionomma atratum</i> (Gmelin, 1789)						+			O
TRIBE REMPHANINI										
33	<i>Rhaphipodus gahani</i> Lameere, 1903						+			O
34	<i>Rhaphipodus subopacus</i> Gahan, 1890						+			O
Subfamily CERAMBYCINAE										
TRIBE ANAGLYPTINI										
35	<i>Anaglyptus (Agalophis) fasciatus</i> (Thomson, 1857)							+		O
TRIBE CALLICHRMATINI										
36	<i>Anubis bipustulatus bipustulatus</i> Thomson, 1865							+		P,O
37	<i>Anubis bipustulatus fimbriatus</i> Bates, 1879							+		O
38	<i>Anubis inermis</i> (White, 1853)			+				+		P,O
39	<i>Aphrodisium (Aphrodisium) cantori</i> (Hope, 1840)			+				+	+	P,O
40	<i>Aphrodisium (Aphrodisium) planicolle</i> Poll, 1890							+		O
41	<i>Aphrodisium cribricolle</i> Van de Poll, 1890	+						+	+	P,O
42	<i>Aphrodisium hardwickianum</i> (White, 1853)							+		O
43	<i>Aphrodisium neoxenum</i> (White, 1853)							+	+	P,O
44	<i>Aphrodisium (opacaphrodisium) griffithi</i> Hope, 1839							+		P,O
45	<i>Aphrodisium robustum</i> (Bates, 1879)							+		P,O
46	<i>Cataphrodisium rubripenne</i> (Hope, 1843)	+				+			+	P,O
47	<i>Chelidonium argentatum</i> (Dalman, 1817)	+			+	+		+	+	P,O
48	<i>Chelidonium gibbicolle</i> (White, 1853)			+					+	P,O
49	<i>Chloridolum (Chloridolum) alcmene</i> Thomson, 1865					+		+	+	O
50	<i>Chloridolum (Chloridolum) bivittatum</i> (White, 1853)	+				+			+	O
51	<i>Chloridolum (Chloridolum) perlaetum</i> (White, 1853)					+			+	P,O
52	<i>Chloridolum nymphe</i> White, 1853	+					+	+		O
53	<i>Ipthalia micaria</i> Holzschuh, 1990							+		O
54	<i>Pachyteria dimidiata</i> Westwood, 1848								+	O
55	<i>Polyzonus (Parapolyzonus) prasinus</i> (White, 1853)								+	O
56	<i>Polyzonus (Polyzonus) bizonatus</i> White 1853							+		P,O
57	<i>Polyzonus (Polyzonus) brevipes</i> Gahan 1906							+		O
58	<i>Polyzonus (Striatopolyzonus) tetraspilosus</i> (Hope, 1835)	+							+	P,O
59	<i>Polyzonus sinense</i> (Hope, 1841)	+						+		P,O
60	<i>Scalenus fulvus</i> (Bates, 1879)							+		P,O
61	<i>Zonopterus flavitarsis</i> (Hope, 1843)					+	+	+	+	P,O
TRIBE CALLIDIOPINI										
62	<i>Ceresium declaratum</i> Holzschuh, 1990							+		O
63	<i>Ceresium lepidulum</i> Holzschuh, 1982							+		P,O
64	<i>Ceresium leucosticticum</i> White, 1855					+	+	+	+	O
65	<i>Ceresium propinquum</i> Holzschuh, 1982							+		O
66	<i>Stenodryas fascipennis</i> Holzschuh, 1984							+		O
67	<i>Stenygrinum quadrinotatum</i> Bates, 1873	+				+			+	P,O
TRIBE CALLIDIINI										
68	<i>Callidium viridicolle</i> Pic, 1926							+		O

SL. NO.	SPECIES NAME	STATES								REALMS
		1	2	3	4	5	6	7	8	
Subfamily CERAMBYCINAE										
TRIBE CERAMBYCINI										
69	<i>Aeolesthes (Aeolesthes) holosericea</i> (Fabricius, 1787)				+		+	+	+	P,O
70	<i>Aeolesthes indicola</i> (Bates, 1891)							+		P,O
71	<i>Aeolesthes sarta</i> (Solsky, 1871)						+			P,O
72	<i>Dialeges pauper</i> Pascoe, 1856						+	+	+	O,AT
73	<i>Hoplocerambyx spinicornis</i> (Newman, 1847)					+	+	+	+	O,P
74	<i>Massicus trilineatus</i> (Pic, 1933)						+			O
75	<i>Massicus unicolor</i> Gahan, 1906								+	O
76	<i>Neocerambyx grandis</i> Gahan, 1891						+		+	P,O
77	<i>Neocerambyx paris</i> (Wiedemann, 1821)					+				O
78	<i>Neoplocaederus obesus</i> (Gahan, 1890)	+			+		+	+	+	O
79	<i>Pachydissus schmutzenhoferi</i> Holzschuh, 1990							+		O
80	<i>Rhytidodera bowringii</i> White, 1853		+				+	+		P,O
81	<i>Rhytidodera consona</i> Holzschuh, 1995						+	+		O
82	<i>Rhytidodera griseofasciata</i> Pic, 1912						+			P,O
TRIBE CLEOMENINI										
83	<i>Artimpaza obscura</i> Gardner, 1926				+			+	+	O
84	<i>Cleomenes ornatus</i> Holzschuh, 1981							+		P,O
85	<i>Dere khatrii</i> Holzschuh, 1984							+		O
86	<i>Kuraru pedongensis</i> Heyrovsky, 1961							+		O
87	<i>Nida championi</i> Gardner, 1926							+		O
88	<i>Paramimistena assimilata</i> Holzschuh, 1999							+		O
89	<i>Paramimistena polyalthiae</i> Fisher, 1940							+		O
90	<i>Paramimistena subglabra</i> Gressitt & Romdon, 1970							+		O
TRIBE CLYTINI										
91	<i>Chlorophorus (Chlorophorus) signaticollis</i> (Laporte de Castelnau & Gory, 1841)								+	P,O
92	<i>Chlorophorus annularis</i> (Fabricius, 1787)			+		+	+	+	+	P,O, NT,A
93	<i>Chlorophorus annularoides</i> Holzschuh, 1983							+		P,O
94	<i>Chlorophorus annulatus</i> (Hope, 1831)							+		P,O
95	<i>Chlorophorus arciferus</i> Chevrolat, 1863							+		P,O
96	<i>Chlorophorus fuscillatus</i> Holzschuh, 1989							+		O
97	<i>Chlorophorus henriettae</i> Holzschuh, 1984							+		O
98	<i>Chlorophorus insidiosus</i> Holzschuh, 1986							+		P,O
99	<i>Chlorophorus semisinuatus</i> Pic, 1949							+		O
100	<i>Clytus minutissimus</i> Nonfried, 1893	+								O
101	<i>Clytus montanus</i> Nonfried, 1893	+								O
102	<i>Demonax albicinctus</i> (Hope, 1831)						+	+		O
103	<i>Demonax dohertii</i> Gahan, 1906	+								O
104	<i>Demonax ingridae</i> Holzschuh, 1983							+		O
105	<i>Demonax jamesi</i> Holzschuh, 1986							+		O
106	<i>Demonax josefinae</i> Holzschuh, 1983							+		O
107	<i>Demonax leucoscutellatus</i> (Hope, 1831)	+			+		+	+	+	O
108	<i>Demonax mulio</i> Pascoe, 1869								+	O
109	<i>Demonax narayani</i> Holzschuh, 1984							+		O
110	<i>Demonax nigromaculatus</i> Gahan, 1906							+		O
111	<i>Demonax rosae</i> Holzschuh, 1983							+		P,O
112	<i>Demonax testaceus</i> (Hope, 1831)							+		O
113	<i>Demonax traudae</i> Holzschuh, 1983							+		P,O

SL. NO.	SPECIES NAME	STATES								REALMS	
		1	2	3	4	5	6	7	8		
Subfamily CERAMBYCINAE											
114	<i>Ischnodora macra</i> Chevrolat, 1863								+		O
115	<i>Ischnodora munda</i> Holzschuh, 1990								+		O
116	<i>Perissus doheritii</i> Gahan, 1906	+									O
117	<i>Perissus laetus</i> Lameere, 1893									+	O
118	<i>Perissus mutabilis mutabilis</i> Gahan, 1894								+		P,O
119	<i>Rhaphuma anopla</i> Holzschuh, 1983								+		O
120	<i>Rhaphuma aranea</i> Holzschuh, 1984								+		O
121	<i>Rhaphuma bhaktai</i> Holzschuh, 1983								+		O
122	<i>Rhaphuma fulgurata fulgurata</i> Gahan, 1906								+		O
123	<i>Rhaphuma horsfieldii</i> (White, 1855)	+			+			+	+		P,O
124	<i>Rhaphuma ilsae</i> Holzschuh, 1983								+		O
125	<i>Rhaphuma joshii</i> Holzschuh, 1984								+		O
126	<i>Rhaphuma laosica</i> Gressitt & Rondon, 1970								+		O
127	<i>Rhaphuma lubricula</i> Holzschuh, 2003								+		O
128	<i>Rhaphuma manipurensis</i> Gahan, 1906	+									O
129	<i>Rhaphuma nishidai</i> Hayashi & Makihara, 1981								+		O
130	<i>Rhaphuma patkaina</i> Gahan, 1906									+	P,O
131	<i>Rhaphuma placida</i> Pascoe, 1858								+		P,O
132	<i>Rhaphuma querciphaga</i> Holzschuh, 1984								+		O
133	<i>Xylotrechus (Xylotrechus) hamptoni</i> (Gahan, 1890)									+	O
134	<i>Xylotrechus incurvatus contortus</i> Gahan, 1906	+				+			+		P,O
135	<i>Xylotrechus incurvatus</i> (Chevrolat, 1863)	+							+		P,O
136	<i>Xylotrechus (Xylotrechus) liciatulus</i> Holzschuh, 2006								+		O
137	<i>Xylotrechus smei</i> (Laporte & Gory, 1836)								+	+	O,P
138	<i>Xylotrechus (Xylotrechus) stebbingi</i> Gahan, 1906								+		P,O, AT
139	<i>Xylotrechus subdepressus</i> (Chevrolat, 1863)	+							+	+	O
140	<i>Xylotrechus quadripes</i> (Chevrolat, 1863)								+		P,O
TRIBE COMPSOCERINI											
141	<i>Rosalia (Eurybatus) gravida</i> Lameere, 1887								+		O
142	<i>Rosalia (Eurybatus) hariola</i> (Thomson, 1861)								+		O
143	<i>Rosalia decempunctata</i> (Westwood, 1848)		+	+				+	+	+	O
144	<i>Rosalia (Eurybatus) formosa</i> (Saunders, 1839)						+	+	+	+	P,O
145	<i>Rosalia lateritia</i> (Hope, 1831)								+	+	P,O
TRIBE ELAPHIDIINI											
146	<i>Nyphasia pascoei</i> Lacordaire, 1869								+		O
TRIBE GLAUCYTIINI											
147	<i>Polyphida metallica</i> (Nonfried, 1893)	+					+				O
TRIBE HESPEROPHANINI											
148	<i>Gnatholea simplex</i> Gahan, 1890							+	+	+	O
149	<i>Stromatium barbatum</i> Fabricius, 1775	+		+			+	+		+	O, AT, N
TRIBE MOLORCHINI											
150	<i>Glaphyra (Glaphyra) darjeelingensis</i> (Gardner, 1936)								+		O
151	<i>Molorchus sikkimanus</i> (Holzschuh, 2003)								+		O
TRIBE MYTHODINI											
152	<i>Phyodexia concinna</i> Pascoe, 1871								+	+	O
TRIBE OBRINI											
153	<i>Stenomalus (Stenomalus) mecops</i> Holzschuh, 1990								+		O
TRIBE OEMINI											
154	<i>Oemospila maculipennis</i> Gahan, 1906			+							P,O
TRIBE OXYCOLEINI											
155	<i>Merionoeda nigriceps</i> (Wiedemann, 1855)							+		+	P,O
156	<i>Merionoeda (Macomolorchus) ebruata</i> Holzschuh, 1989								+		O
157	<i>Merionoeda (Merionoeda) indica</i> (Hope, 1831)								+		P,O
158	<i>Merionoeda (Merionoeda) scutulata</i> Holzschuh, 1989								+		P,O
TRIBE PROTAXINI											
159	<i>Protaxis fulvescens</i> Gahan, 1906	+			+						O
TRIBE PROTHEMINI											
160	<i>Prothema aurata</i> Gahan, 1906								+	+	O

SL. NO.	SPECIES NAME	STATES								REALMS		
		1	2	3	4	5	6	7	8			
Subfamily LAMINAE												
TRIBE AGAPANTHINI												
211	<i>Pothyne sikkimana</i> Breuning, 1968								+		O	
212	<i>Pothyne sikkimensis</i> Breuning, 1940								+		O	
213	<i>Pothyne variegata variegata</i> Thompson, 1864								+	+	O	
214	<i>Pseudocalamobius proximus</i> Breuning, 1940								+		O	
215	<i>Pseudocalamobius rufescens</i> Breuning, 1940								+		O	
216	<i>Pseudocalamobius truncatus</i> Breuning, 1940								+		O	
217	<i>Tetraglenes hirticornis</i> (Fabricius, 1798)								+		P,O	
218	<i>Tetraglenes insignis</i> Newman, 1842							+			O	
TRIBE ANCYLONOTINI												
219	<i>Palimna indica</i> Breuning, 1938									+	O	
220	<i>Palimna palimnoides</i> (Schwarzer, 1925)								+		P,O	
221	<i>Palimna yunnana</i> Breuning, 1935								+		P,O	
TRIBE APODASYINI												
222	<i>Euseboides gorodinskii</i> Holzschuh, 2006								+		O	
223	<i>Euseboides plagiatus</i> Gahane, 1893								+	+	O	
224	<i>Euseboides plagiatooides</i> Breuning, 1950									+	O	
225	<i>Miccolamia (Miccolamia) relucens</i> Holzschuh, 2003									+	O	
226	<i>Miccolamia (Miccolamia) rugosula</i> Holzschuh, 2003									+	O	
227	<i>Ropica affinis</i> Breuning, 1939									+	O	
228	<i>Ropica assamensis</i> Breuning, 1972								+		O	
229	<i>Ropica coomani</i> Pic, 1926									+	O	
230	<i>Ropica dorsalis</i> Schwarzer, 1925									+	P,O	
TRIBE APODASYINI												
231	<i>Ropica pedongensis</i> Breuning, 1968									+	O	
232	<i>Ropica rosti</i> Breuning, 1958									+	O	
233	<i>Ropica subaffinis</i> Breuning, 1968									+	O	
234	<i>Zotalemimon lineatoides</i> (Breuning, 1969)									+	O	
235	<i>Zotalemimon posticata</i> (Gahan, 1894)									+	P,O	
TRIBE APOMECYNINI												
236	<i>Apomecyna cretacea</i> (Hope, 1831)								+	+	O	
237	<i>Apomecyna histrio</i> (Fabricius, 1793)								+	+	P,O	
238	<i>Apomecyna leucosticta</i> (Hope, 1831)	+						+		+	O,P	
239	<i>Apomecyna saltator</i> (Fabricius, 1787)								+		O,N	
240	<i>Apomecyna tigrina indica</i> Breuning, 1969								+	+	P,O	
241	<i>Cornallis gracilipes</i> Thomson, 1864									+	O	
242	<i>Diaxenes dendrobii</i> Gahan, 1894									+	O	
243	<i>Estigmenida robusta</i> Breuning, 1940									+	O	
244	<i>Falsoropica sikkimensis</i> Breuning, 1973									+	O	
245	<i>Hyagnis cf. basicristatus</i> Breuning, 1949								+		P,O	
246	<i>Iproca pedongensis</i> Breuning, 1968									+	O	
247	<i>Mycerinopsis iconicoides</i> (Breuning, 1975)									+	O,A	
248	<i>Neosybra flavovittata</i> Breuning, 1954									+	O	
249	<i>Pemptolasius humeralis</i> Gahan, 1890									+	O	
250	<i>Pseudectatosia strandiella</i> Breuning, 1940								+	+	P,O	
251	<i>Sybra (Sybra) sikkimensis</i> Breuning, 1939									+	O	
252	<i>Sybra (Sybra) bioculata sikkimana</i> Breuning, 1969									+	O	
253	<i>Sybra (Sybra) elongatula</i> Breuning, 1939									+	O	
254	<i>Sybra (Sybra) longipes</i> Breuning & De Jong, 1941									+	O	
TRIBE ASTATHINI												
255	<i>Astathes (Tetraophthalmus) violaceipennis</i> (Thomson, 1857)									+	+	P,O
256	<i>Momisis monticola</i> Breuning, 1956									+	O	
257	<i>Plaxomicrus sikkimensis</i> , Breuning, 1956									+	O	
TRIBE BATOCERINI												
258	<i>Apriona (Apriona) paucigranula</i> Thomson, 1878									+	P,O	
259	<i>Apriona (Apriona) trilineata</i> Chevrolat, 1852									+	O	
260	<i>Apriona germarii germarii</i> (Hope, 1831)	+						+	+	+	P,O	

SL. NO.	SPECIES NAME	STATES								REALMS	
		1	2	3	4	5	6	7	8		
Subfamily LAMINAE											
TRIBE MESOSINI											
309	<i>Mesocacia multimaculata</i> (Pic, 1925)								+		P,O
310	<i>Mesosa (Aplocnemia) affinis affinis</i> Breuning, 1936									+	O
311	<i>Mesosa (Aplocnemia) sikkimensis</i> Breuning, 1935									+	O
TRIBE MESOSINI											
312	<i>Mesosa (Perimesosa) bimaculata</i> Breuning, 1936								+		O
313	<i>Mesosa (Perimesosa) bimigrovittipennis</i> Breuning, 1968								+	+	O
314	<i>Mesosaimia robusta</i> Breuning, 1938									+	P,O
315	<i>Mutatocoptops alboapicalis</i> Pic, 1925								+		P,O,N
TRIBE MONOCHAMINI											
316	<i>Acalolepta affinis</i> Breuning, 1935									+	O
317	<i>Acalolepta aurata</i> (Gahan, 1888)						+	+			O
318	<i>Acalolepta basicornis</i> (Gahan, 1894)									+	P,O
319	<i>Acalolepta bifasciata</i> (Westwood, 1848)								+	+	O
320	<i>Acalolepta bretschnideri</i> Weivel, 2012								+		O
321	<i>Acalolepta cervina</i> (Hope, 1831)								+		P,O
322	<i>Acalolepta crassepunctifrons</i> (Breuning, 1960)									+	O
323	<i>Acalolepta gardneri</i> (Breuning, 1938)									+	O
324	<i>Acalolepta paracervina</i> Breuning, 1972									+	O
325	<i>Acalolepta elongata</i> (Breuning, 1935)						+		+		P,O
326	<i>Acalolepta griseipennis</i> (Thomson, 1857)								+	+	P,O
327	<i>Acalolepta griseopalgiata</i> Breuning, 1935									+	O
328	<i>Acalolepta inaequalis</i> (Gardner, 1937)									+	O
329	<i>Acalolepta laeviceps</i> (Breuning, 1938)									+	O
330	<i>Acalolepta mutans</i> (Pascoe, 1857)									+	P,O
331	<i>Acalolepta permutans</i> (Pascoe, 1857)						+				P,O
332	<i>Acalolepta (Acalolepta) punctifrons</i> (Gahan, 1895)									+	O
333	<i>Acalolepta scotti</i> (Breuning, 1936)									+	O
334	<i>Acalolepta sericans</i> (Breuning, 1938)									+	O,A
335	<i>Acalolepta sikkimensis nigrina</i> Breuning, 1975									+	O
336	<i>Acalolepta sulphurifera</i> (Hope, 1842)						+			+	O
337	<i>Acalolepta tenuipes</i> (Breuning, 1939)									+	O
338	<i>Agniomorpha ochraceomaculata</i> Breuning, 1935									+	P,O
339	<i>Agnoderus gnomoides</i> Thomson, 1864									+	O
340	<i>Annamanum indicum</i> Breuning, 1938									+	O
341	<i>Annamanum sikkimense</i> (Breuning, 1942)									+	O
342	<i>Anoplophora beryllina</i> (Hope, 1839)									+	P,O
343	<i>Anoplophora sollii</i> (Hope, 1839)									+	P,O
344	<i>Anoplophora stanleyana stanleyana</i> Hope, 1839									+	P,O
345	<i>Aristobia approximator</i> (Thomson, 1865)	+								+	P,O
346	<i>Aristobia horridula</i> (Hope, 1831)								+	+	P,O
347	<i>Aristobia reticulator</i> (Fabricius, 1781)	+	+	+	+	+	+	+	+	+	P,O
348	<i>Blepephaeus arrowi</i> Breuning, 1935									+	O
349	<i>Blepephaeus indicus</i> Breuning, 1935									+	O
350	<i>Blepephaeus succinator</i> (Chevrolat, 1852)			+			+	+	+	+	O
351	<i>Epepeotes uncinatus</i> Gahan, 1888			+			+	+	+	+	P,O
352	<i>Eutaenia corbetti</i> Gahan, 1893			+							O
353	<i>Falsagnia obenbergeri</i> Breuning, 1938									+	O
354	<i>Hechinoschema spinosa</i> Thomson, 1857						+			+	O
355	<i>Hoplothrix amicator</i> (Gahan, 1888)								+	+	O
356	<i>Macrochenus guerinii</i> (White, 1858)			+			+	+	+	+	P,O
357	<i>Macrochenus tigrinus</i> (Olivier, 1792)									+	O
358	<i>Mimoleprodera granulosa</i> Breuning, 1938						+				O
359	<i>Monochamus (Monochamus) basifossulatus</i> Breuning, 1938						+				P,O
360	<i>Monochamus bimaculatus</i> Gahan, 1888								+	+	P,O

SL. NO.	SPECIES NAME	STATES								REALMS
		1	2	3	4	5	6	7	8	
Subfamily LAMINAE										
TRIBE MONOCHAMINI										
361	<i>Monochamus flocculatus</i> Gressitt, 1935						+			O
362	<i>Monochamus desperatus</i> Thomson, 1857							+		A,O
363	<i>Monochamus dubius</i> Gahan, 1894							+		P,O
364	<i>Monochamus gardneri</i> Breuning, 1938							+		O
365	<i>Monochamus subtrangularis</i> Breuning, 1972						+			O
366	<i>Nanohammus myrrhatus</i> (Pascoe, 1878)						+			O
367	<i>Paraepepeotes affinis</i> Breuning, 1938				+					O
368	<i>Paraepepeotes guttatus</i> (Guerin-Meneville, 1844)					+	+	+		P,O
369	<i>Paraepepeotes westwoodi</i> Westwood, 1848							+		O
370	<i>Paragnia fulvomaculata</i> Gahan, 1893							+		P,O
371	<i>Paraleprodera stephanus</i> (White, 1858)					+		+	+	O
372	<i>Paraleprodera insidiosa</i> Gahan, 1888							+		O
373	<i>Paraleprodera officinator</i> (White, 1858)								+	O
374	<i>Paramelanauster bimaculatus</i> Breuning, 1936	+								O
375	<i>Paruraecha (Paruraecha) sikkimensis</i> Breuning, 1938							+		O
376	<i>Pharsalia (Antemopharsalia) antennata</i> Gahan, 1894							+		P,O
377	<i>Pharsalia (Cycos) gibbifera</i> (Guerin-Meneville, 1844)							+		O
378	<i>Pharsalia (Cycos) subgemmata</i> (Thomson, 1857)					+				P,O
379	<i>Pharsalia suturalis</i> Aurivillius, 1920					+			+	O
380	<i>Polytretus cribripennis</i> Gahan, 1893							+		P,O
381	<i>Pseudomeges marmoratus</i> (Westwood, 1848)						+			O
382	<i>Pseudonemophas versteegii</i> (Ritsema, 1881)	+	+	+	+	+	+	+	+	P,O
383	<i>Sarothroceras lowii</i> White, 1846	+						+		O
384	<i>Sternohammus sericeus</i> (Breuning, 1937)							+		O
385	<i>Stratioceros princeps</i> Lacordaire, 1869					+	+			P,O
386	<i>Sternorsidis brunnea</i> Breuning, 1959							+		O
387	<i>Thermonotus nigripes</i> Gahan, 1888							+		O
388	<i>Xenicotela distincta</i> (Gahan, 1888)							+		O
TRIBE MORIMOPSINI										
389	<i>Aconodes pedongensis</i> Breuning, 1956							+		O
390	<i>Aconodes sikkimensis</i> (Breuning, 1940)							+		O
391	<i>Aconodes truncatus</i> (Breuning, 1939)							+		O
392	<i>Morimopsis assamensis</i> Breuning, 1966						+			O
393	<i>Morimopsis granulipennis</i> Breuning, 1966							+		O
394	<i>Morimopsis lacrymans</i> Thompson, 1857							+		O
395	<i>Morimopsis mussardi</i> Breuning, 1966						+			O
396	<i>Paroriaethus multispinis</i> Breuning, 1936								+	O
TRIBE NYCTIMENINI										
397	<i>Nyctimenius tristi</i> (Fabricius, 1793)							+		P,O
TRIBE PETROGNATHINI										
398	<i>Ithocritus ruber</i> (Hope, 1839)					+		+	+	P,O
TRIBE PHRISSOMINI										
399	<i>Morimus lethalis</i> Thomson, 1857					+				P,O
400	<i>Morimus misellus</i> Breuning, 1938					+				O
TRIBE PHYTOECIINI										
401	<i>Cristoberea assamensis</i> Breuning, 1954								+	O
402	<i>Linda (Dasyllinda) testacea</i> (Saunders, 1839)					+	+	+		P,O
403	<i>Linda (Linda) nigroscutata nigroscutata</i> (Fairmaire, 1902)								+	P,O
404	<i>Linda (Linda) rubescens</i> (Hope, 1831)						+	+	+	P,O
405	<i>Nupserha acuta</i> Holzschuh, 1986							+		O
406	<i>Nupserha annulata</i> (Thomson, 1857)	+				+		+		O
407	<i>Nupserha basipilosa</i> Holzschuh, 1986							+		O
408	<i>Nupserha bicolor</i> Thomson, 1857						+			O
409	<i>Nupserha flavipennis</i> Breuning, 1950							+		O
410	<i>Nupserha fricator</i> (Dalman, 1817)						+	+		P,O

SL. NO.	SPECIES NAME	STATES								REALMS	
		1	2	3	4	5	6	7	8		
Subfamily LAMINAE											
TRIBE PHYTOECIINI											
411	<i>Nupserha fuscodorsalis</i> Wang and Chiang, 2002								+		P,O
412	<i>Nupserha lenita</i> (Pascoe, 1867)					+			+		O
413	<i>Nupserha nigriceps</i> Gahan, 1894							+			O
414	<i>Nupserha pallidipennis pallidipennis</i> (Redtenbacher, 1848)								+		O
415	<i>Nupserha quadrioculata</i> (Thunberg, 1787)					+					P,O
416	<i>Nupserha rotundicollis</i> Breuning, 1950								+		O
417	<i>Nupserha schmidi darjeelingensis</i> Holzschuh, 1990								+		O
418	<i>Nupserha schmidi schmidi</i> Breuning, 1966							+	+		O
419	<i>Nupserha spinifera spinifera</i> Gressitt, 1948								+		P,O
420	<i>Nupserha ventralis</i> Gahan, 1894								+		P,O
421	<i>Oberea (Oberea) bisbipunctulata</i> Breuning, 1962								+		O
422	<i>Oberea (Oberea) consentanea</i> Pascoe, 1867								+		P,O
423	<i>Oberea (Oberea) ferruginea</i> Thunberg, 1787								+		P,O,N
424	<i>Oberea (Oberea) montivagans medioplagiata</i> Breuning, 1960								+	+	P,O
425	<i>Oberea (Oberea) sikkimensis</i> Breuning, 1960								+		O
426	<i>Oberea insperans</i> Pascoe, 1857					+					O
427	<i>Oberea nigriventris</i> Bates, 1873							+			P,O
428	<i>Oberea posticata</i> Gahan, 1894			+		+	+	+			O
429	<i>Obereopsis atrosternalis</i> Breuning, 1957								+		O
430	<i>Obereopsis darjeelingensis</i> Breuning & Heyrovsky, 1964								+		O
431	<i>Obereopsis flavodiscalis flavodiscalis</i> Breuning, 1982								+		O
432	<i>Obereopsis nigriceps nigriceps</i> Breuning, 1957								+		O
433	<i>Obereopsis obscura nigroabdominalis</i> Breuning, 1972								+		O
434	<i>Obereopsis obscura obscura</i> Breuning, 1957							+			O
435	<i>Obereopsis pedongensis</i> Breuning, 1960								+		O
436	<i>Obereopsis pseudoannulicornis</i> Breuning, 1982								+		O
437	<i>Obereopsis quadrinotaticollis lahungi</i> Breuning, 1982								+		O
438	<i>Obereopsis rubetra sikkimana</i> Breuning, 1982								+		O
439	<i>Obereopsis rufescens</i> Breuning, 1960								+		O
440	<i>Obereopsis sericea</i> Gahan, 1894							+	+		O
441	<i>Obereopsis sericeoides</i> Holzschuh, 2006								+		O
442	<i>Obereopsis sikkimensis</i> Breuning, 1957								+		O
443	<i>Obereopsis subteratra</i> Breuning, 1957								+		O
444	<i>Obereopsis varieantennalis</i> Breuning, 1982								+	+	O
445	<i>Phytoecia (Phytoecia) sikkimensis</i> Pic, 1970								+		O
TRIBE POGONOCHEIRINI											
446	<i>Exocentrus assamensis</i> Breuning, 1972							+			O
447	<i>Exocentrus (Camptomys) explanatidens</i> Pic, 1930								+		O
448	<i>Exocentrus (Exocentrus) diversiceps</i> Pic, 1931								+	+	P,O
449	<i>Exocentrus (Pseudocentrus) alni</i> Fisher, 1932								+		O
450	<i>Exocentrus fisheri</i> Gressitt, 1935								+		P,O
451	<i>Exocentrus (Pseudocentrus) flemingiae</i> Fisher, 1932								+		P,O
452	<i>Exocentrus (Pseudocentrus) granulicollis</i> Fisher, 1932					+					O
453	<i>Exocentrus ravillus</i> Holzschuh, 1984								+		O
454	<i>Exocentrus transversifrons</i> Fisher, 1940								+		O
TRIBE PTEROPLIINI											
455	<i>Abryna regispetri</i> Paita, 1860			+							O
456	<i>Desisa (Callienispia) anterufipennis</i> Breuning, 1958								+		O
457	<i>Desisa (Egesina) basirufa</i> Breuning & Heyrovsky, 1961								+		O
458	<i>Egesina (Nijjimaia) flavopicta</i> Breuning & Heyrovsky, 1961								+		O
459	<i>Egesina (Nijjimaia) sikkimensis</i> Breuning, 1940								+		O
460	<i>Marmylaris buckleyi</i> Pascoe, 1857								+		O
461	<i>Marmylaris truncatipennis</i> Breuning, 1940								+		O
462	<i>Mimectatosia compacta</i> Breuning, 1959								+		O
463	<i>Mispila (Mispila) assamensis</i> Breuning, 1938									+	O
464	<i>Mispila curvilinea</i> Pascoe, 1869							+			P,O
465	<i>Mispila (Trichomispila) pedongensis</i> Breuning, 1968								+		O

SL. NO.	SPECIES NAME	STATES								REALMS	
		1	2	3	4	5	6	7	8		
Subfamily LAMINAE											
TRIBE PTEROPLINI											
466	<i>Niphona (Niphona) fuscatrix</i> (Fabricius, 1793)								+		P,O
467	<i>Niphona (Niphona) hookeri</i> Gahan, 1900								+		P,O
468	<i>Niphona (Niphona) lateralis</i> (White, 1858)									+	O
469	<i>Niphosoma sikkimense</i> Breuning, 1957								+		O
470	<i>Pseudolophia uniformis</i> Breuning, 1938								+		O
471	<i>Pterolophia (Ale) ochreomaculata</i> Breuning, 1940								+		O
472	<i>Pterolophia (Ale) postscutellaris</i> Breuning, 1967								+		O
473	<i>Pterolophia (Ale) sikkimensis</i> Breuning, 1938								+		O
474	<i>Pterolophia bifasciata</i> Breuning, 1968								+		O
475	<i>Pterolophia (Hylobrotus) annulata</i> (Chevrolat, 1845)								+		P,O
476	<i>Pterolophia (Hylobrotus) gerardinae</i> Breuning, 1937								+		P,O
477	<i>Pterolophia (Hylobrotus) obscuroides</i> Breuning, 1938							+	+		O
478	<i>Pterolophia (Hylobrotus) subcostata</i> Breuning, 1938							+			O
479	<i>Pterolophia (Hylobrotus) tibialis</i> Breuning, 1938								+	+	O
480	<i>Pterolophia (Hylobrotus) tuberculatrix</i> (Fabricius, 1781)								+		O
481	<i>Pterolophia (Lychrosis) humerosa</i> (Thomson, 1865)							+		+	P,O
482	<i>Pterolophia (Lychrosis) subbicolor</i> Breuning, 1960							+			O
483	<i>Pterolophia (Lychrosis) zebrina</i> (Pascoe, 1858)							+		+	P,O
484	<i>Pterolophia (Mimoron) brevegibbosa</i> Pic, 1926								+		P,O
485	<i>Pterolophia (Mimoron) pedongensis</i> Breuning, 1968								+		O
486	<i>Pterolophia (Mimoron) ropicoides</i> Breuning, 1968								+		O
487	<i>Pterolophia (Pterolophia) apicefusca</i> Breuning, 1938								+		P,O
488	<i>Pterolophia (Pterolophia) bituberata</i> Breuning, 1938								+		O
489	<i>Pterolophia (Hylobrotus) bituberculata</i> Breuning, 1938								+		O
490	<i>Pterolophia (Pterolophia) consularis</i> Pascoe, 1966								+		P,O, AT
491	<i>Pterolophia (Pterolophia) assamensis</i> Breuning, 1938									+	O
492	<i>Pterolophia (Pterolophia) dorsalis</i> (Pascoe, 1858)								+		P,O
493	<i>Pterolophia (Pterolophia) granulosa</i> Breuning, 1938								+		O
494	<i>Pterolophia (Pterolophia) ligata</i> Pascoe, 1862								+		O
495	<i>Pterolophia (Ale) marmorata</i> Breuning, 1938								+		O
496	<i>Pterolophia (Pterolophia) mediofasciata</i> Breuning, 1938									+	O
497	<i>Pterolophia (Pterolophia) nigricans</i> Breuning, 1938								+		O
498	<i>Pterolophia (Pterolophia) nigrovirgulata</i> Breuning, 1939								+		O
499	<i>Pterolophia (Pterolophia) obscurata</i> Breuning, 1938								+		O
500	<i>Pterolophia pedongana</i> Breuning, 1968								+		O
501	<i>Pterolophia (Pterolophia) persimilis</i> Gahan, 1894								+		P,O
502	<i>Pterolophia (Pterolophia) pseudoculatoides</i> Breuning, 1968								+		O
503	<i>Pterolophia (Pterolophia) pseudotincta</i> Breuning, 1938								+		O
504	<i>Pterolophia (Pterolophia) rufobrunnea</i> Breuning, 1938								+		O
505	<i>Pterolophia (Pterolophia) sikkimana</i> Breuning, 1973								+		O
506	<i>Pterolophia (Pterolophia) salebrosa</i> Breuning, 1938									+	O
507	<i>Pterolophia (Pterolophia) scripta</i> (Gerstaecker, 1871)								+		O,AT
508	<i>Pterolophia sthenioides grossepunctipennis</i> Breuning, 1969								+		O
509	<i>Pterolophia (Pterolophia) subbicarinata</i> Breuning, 1968								+		O
510	<i>Pterolophia (Pterolophia) subtubericollis</i> Breuning & Hearovsky, 1964								+		P,O
511	<i>Pterolophia (Pterolophia) sthenioides sthenioides</i> Breuning, 1938								+		O
512	<i>Pterolophia (Pterolophia) touzalini</i> Breuning, 1973								+		O
513	<i>Pterolophia (Pterolophia) transversefasciata</i> Breuning, 1938								+	+	P,O
514	<i>Pterolophia (Pterolophia) tubericollis</i> Breuning, 1938								+		O
515	<i>Pterolophia (Pterolophia) tuberosithorax</i> Breuning, 1939									+	O
516	<i>Pterolophia longiuscula</i> Breuning, 1938						+			+	O
517	<i>Pterolophia lunigera</i> Aurivillius, 1913								+		P,O
518	<i>Pterolophia occidentalis</i> Schwarzer, 1931								+		O

SL. NO.	SPECIES NAME	STATES								REALMS	
		1	2	3	4	5	6	7	8		
Subfamily LAMIINAE											
TRIBE PTEROPLIINI											
519	<i>Sthenias (Sthenias) franciscana</i> Thomson, 1865								+		O
520	<i>Sthenias (Sthenias) persimilis</i> Breuning, 1938								+		O
521	<i>Sthenias (Sthenias) pseudodorsalis</i> Breuning, 1938								+		P,O
522	<i>Sthenias gracilis</i> Breuning, 1938					+	+				O
523	<i>Sthenias grisator</i> (Fabricius, 1787)					+	+				O
524	<i>Trichoniphona albomarmorata</i> Breuning, 1968								+		O
525	<i>Xynenon bondii</i> (Pascoe, 1859)								+		O
TRIBE SAPERDINI											
526	<i>Glenea (Aridoglenea) vaga</i> Thomson, 1865								+		O
527	<i>Glenea (Glenea) astathiformis</i> Breuning, 1958								+		P,O
528	<i>Glenea (Glenea) bedoci mussradi</i> Breuning, 1967							+			O
529	<i>Glenea beelsoni</i> Heller, 1926								+		O
530	<i>Glenea chalybeata</i> Thomson, 1861								+		O
531	<i>Glenea (Glenea) diana diana</i> Thomson 1865									+	P,O
532	<i>Glenea glechomoides</i> Breuning, 1982								+		O
533	<i>Glenea (Glenea) nigerrima</i> Breuning, 1953								+		O
534	<i>Glenea (Glenea) ornata</i> Gahan, 1889								+		O
535	<i>Glenea (Glenea) pici schmidi</i> Breuning, 1965							+			O
536	<i>Glenea (Glenea) pseudoluctuosa</i> Breuning, 1953								+		O
537	<i>Glenea (Glenea) pulchra</i> Aurivillius, 1926				+	+			+	+	P,O
538	<i>Glenea (Glenea) saperdifformis</i> Breuning, 1953							+			O
539	<i>Glenea (Glenea) sikkimensis</i> Breuning, 1982								+		O
540	<i>Glenea (Glenea) silhetica</i> Plavilstshikov, 1927			+							P,O
541	<i>Glenea (Glenea) t-notata</i> Gahan, 1889					+					P,O
542	<i>Glenea (s.str.) indiana</i> (Thomson, 1857)			+		+			+		O
543	<i>Glenea (s.str.) sulphurea</i> Thomson, 1865					+			+		P,O
544	<i>Glenea (Rubroglenea) rubricollis</i> (Hope, 1842)								+		P,O
545	<i>Glenea (Stiroglenea) cantor cantor</i> Fabricius, 1787								+		P,O
546	<i>Glenea (Stiroglenea) cantor obesa</i> (Thomson, 1857)								+		O
547	<i>Glenea (Stiroglenea) spilota</i> Thomson, 1860							+	+		O
548	<i>Glenea cancellata</i> Thomson, 1865					+	+	+			O
549	<i>Glenea lecta</i> Gahan, 1889					+					O
550	<i>Glenea (s.str.) pulchella</i> Pascoe, 1857	+							+		O
551	<i>Glenea (Glenea) flava</i> Jordan, 1895			+					+		P,O
552	<i>Heteroglenea bastiensis</i> Breuning, 1956								+		O
553	<i>Paraserixia flava</i> Breuning, 1954								+		O
554	<i>Serixia bootangana</i> Breuning, 1858								+		O
555	<i>Serixia inconspicua</i> Gardner, 1936						+				O
556	<i>Stibara (Stibara) rufina</i> Pascoe, 1858									+	O
557	<i>Stibara (s.str.) tricolor</i> (Fabricius, 1793)									+	P,O
558	<i>Stibara (Stibara) tetraspilota</i> Hope, 1840			+		+	+	+	+		O
559	<i>Thermistis croceocincta</i> (Saunders, 1839)									+	P,O
TRIBE XYLORHIZINI											
560	<i>Thylactus sikkimensis</i> Breuning, 1938								+		P,O
561	<i>Thylactus simulans</i> Gahan, 1890							+	+		O
562	<i>Xylorhyza adusta</i> Wiedemann, 1819						+	+	+		O
Total		47		9	26	19	80	136	424	102	

Where States: 1: Manipur, 2: Mizoram, 3: Tripura, 4: Nagaland, 5: Meghalaya, 6: Arunachal Pradesh, 7: Sikkim, 8: Assam.

Realms: Palearctic (P), Oriental (O), Afro-tropical (AT), Nearctic (N), Neo-tropical (NT), Australian (A)

Manipur is one of the seven states of North-East India, lies at a latitude of 23°83' N to 25°68' N and a longitude of 93°03' E to 94°78' E. The total area covered by the state is 22,347 km². A total of 47 species under 37 genera of 21 tribes belonging to 4 subfamilies

of the family Cerambycidae were reported from Manipur state (Fig. 1). With 55% of the total species, unlike others, the Cerambycinae is the predominant subfamily in the Manipur state, followed by Lamiinae (26%), Prioninae (15%) and Lepturinae (4%) (Fig. 4).

Mizoram is a landlocked state in North-East India lies in between 21°56'N to 24°31'N, and 92°16'E to 93°26'E. Present communication reports 9 species of 9 genera under 7 tribes of 2 subfamilies of the family Cerambycidae from this North-East Indian state of Mizoram (Fig. 1). Of them, the subfamily Lamiinae

represents 67% species and the subfamily Cerambycinae represents only 33% species (Fig. 5). Tripura, one of the border states of North-Eastern India, lies between 22°55'– 24°32'N & 91°021'–92°016'E. The state has an area of 10,492km² with 53.62% of the area under forest cover.

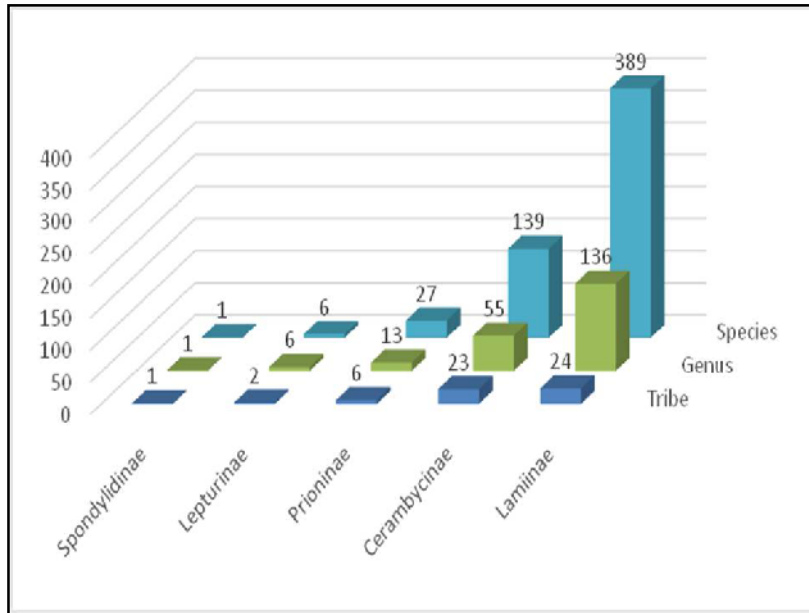


Fig. 2. Number of Subfamilies, Tribes, Genera and species of Cerambycid beetles in North-East Indian states.

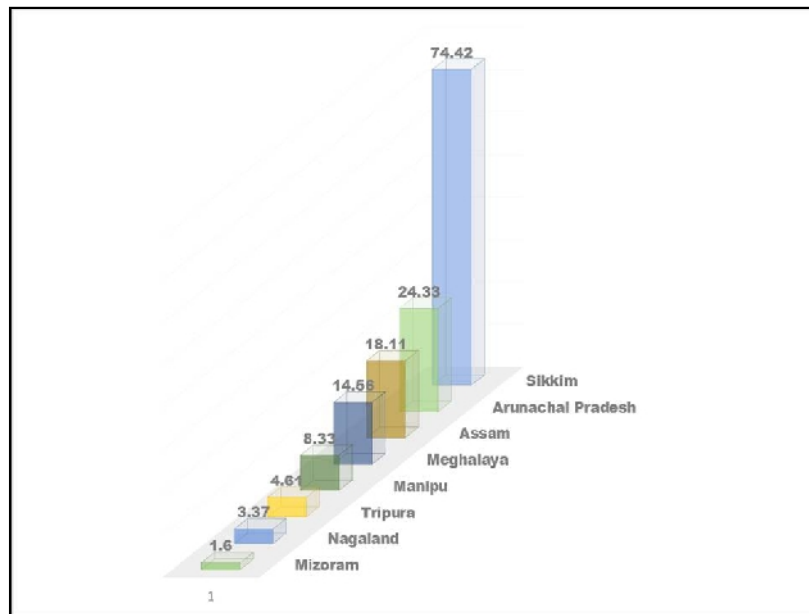


Fig. 3. State-wise species diversity (percentage-wise).

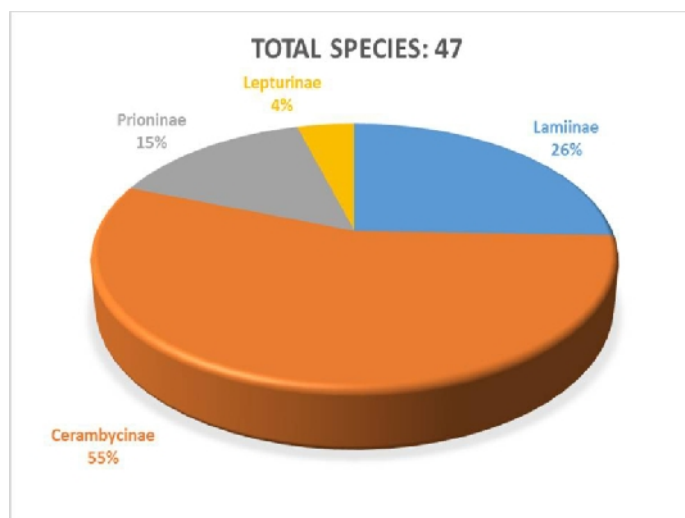


Fig. 4. Species diversity in Manipur State (Subfamily-wise).

Present communication reports 26 species of 23 genera under 16 tribes of 3 subfamilies of the family Cerambycidae from this North-East Indian state (Fig. 1). Of them, the subfamily Lamiinae shares 65% species, followed by Cerambycinae (31%) and Prioninae (4%) (Fig. 6). Nagaland is one of the smallest states of North-Eastern India. This state has an area of 16,579 square kilometres and about one-sixth of Nagaland is covered by tropical and sub-tropical evergreen forests. A total of 19 species of 17 genera belonging to 13 tribes under 3 subfamilies are reported from Nagaland (Fig. 1). Of them, the subfamily Lamiinae shares the maximum number of species

(58%), followed by Cerambycinae (37%) and Prioninae (5%) (Fig. 7).

Meghalaya is a North-Eastern state of India bounded by the state of Assam and country Bangladesh. The state has an area of 22,429 sq. km. The forests of Meghalaya can be broadly grouped into tropical, subtropical and temperate types. Altogether, 80 species under 53 genera of 28 tribes under 3 subfamilies are reported from the state of Meghalaya (Fig. 1). The subfamily Lamiinae is the predominant group representing 71% species, followed by Cerambycinae (20%) and Prioninae (9%) (Fig. 8).

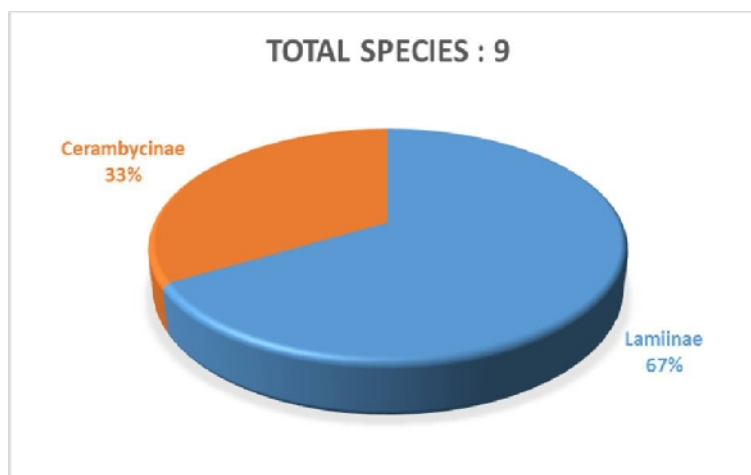


Fig. 5. Species diversity in Mizoram State (Subfamily-wise).

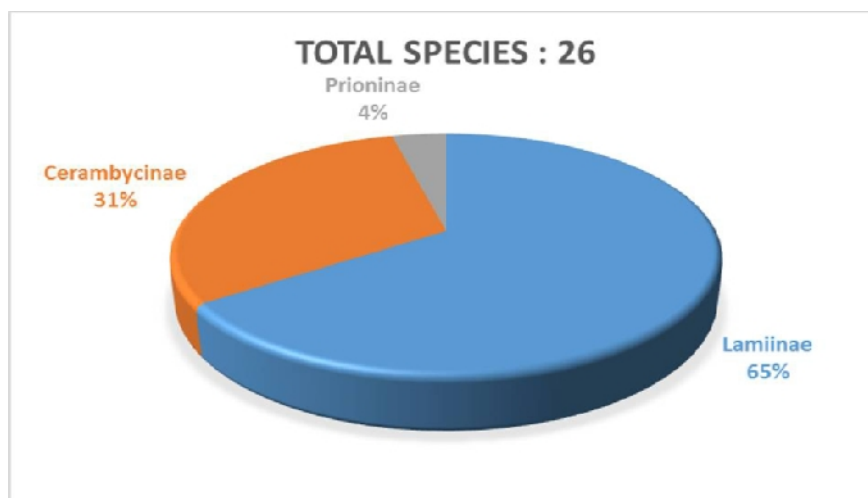


Fig. 6. Species diversity in Tripura State (Subfamily-wise).

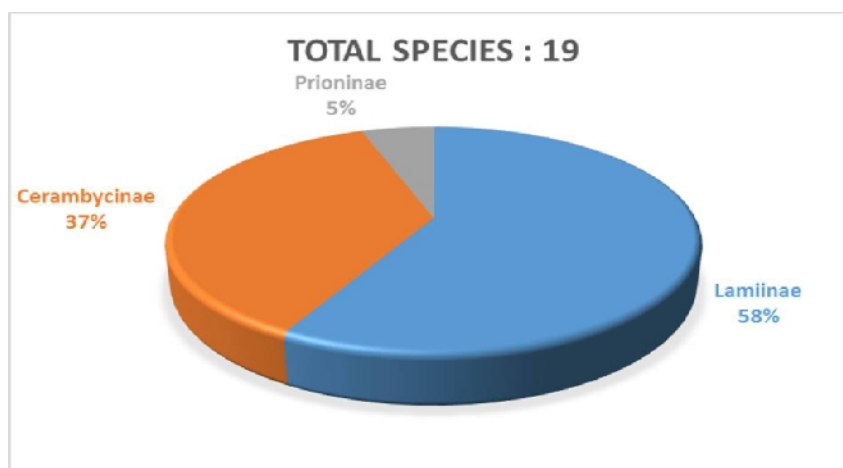


Fig. 7. Species diversity in Nagaland State (Subfamily-wise).

The state of Arunachal Pradesh lies between lat. $26^{\circ} 28'$ and $29^{\circ} 30' N$ and long. $91^{\circ} 20'$ and $97^{\circ} 30' E$ and covering an area of $83,743 \text{ km}^2$. About 94% of its area is covered by forests, thus making forestry as an important land use. Altogether, 136 species under 83 genera of 33 tribes under 4 subfamilies are reported from the state of Arunachal Pradesh (Fig. 1). As usual, the Lamiinae is the predominant subfamily with 64% species, followed by Cerambycinae (20%), Prioninae (15%) and Spondylinae (1%) (Fig. 9).

Sikkim is a state in North-East India, bordered by Bhutan, Tibet and Nepal and covering an area of $7,096 \text{ km}^2$, lies at $27^{\circ} 00' 46''$ and $28^{\circ} 07' 48''$ North latitude and $88^{\circ} 00' 58''$ and $88^{\circ} 55' 25''$ East longitude. Altogether, 424 species under 174 genera of 50 tribes

under 4 subfamilies are reported from the state of Sikkim (Fig. 1). Of them, Lamiinae (70%), Cerambycinae (25%), Prioninae (4%) and Lepturinae (1%) (Fig. 10). Assam formerly the Assam Province (British India) is situated between $20^{\circ} N$ and $28^{\circ} N$ latitude and $90^{\circ} E$ and $96^{\circ} E$ longitude. The state is surrounded by Arunachal Pradesh, Nagaland, Mizoram and Meghalaya. It has an area of over $78,438 \text{ sq. km}$. Altogether, 102 species under 69 genera of 34 tribes under 3 subfamilies are reported from the state of Assam (Fig. 1), Lamiinae shares 50% and the subfamilies Cerambycinae and Prioninae are 42% and 8% respectively (Fig. 11).

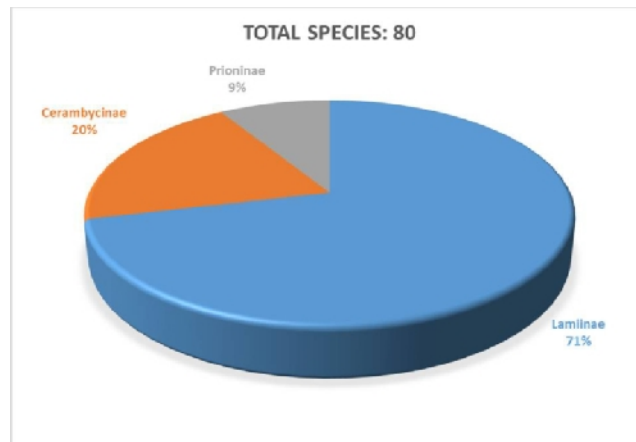


Fig. 8. Species diversity in Meghalaya State (Subfamily-wise).

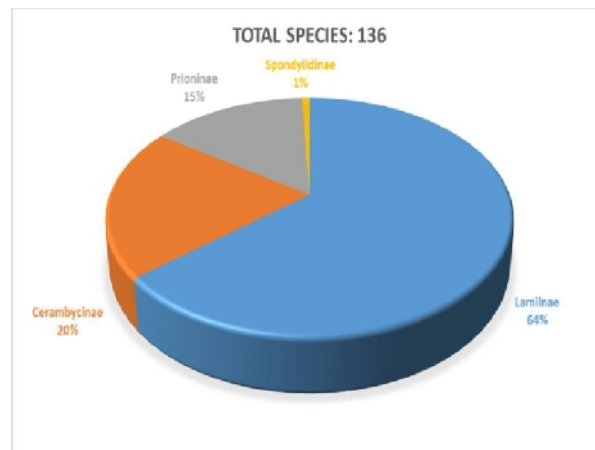


Fig. 9. Species diversity in Arunachal Pradesh State (Subfamily-wise).

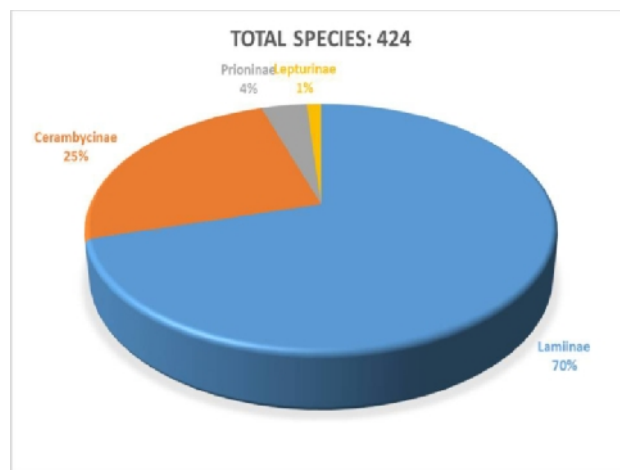


Fig. 10. Species diversity in Sikkim State (Subfamily-wise).

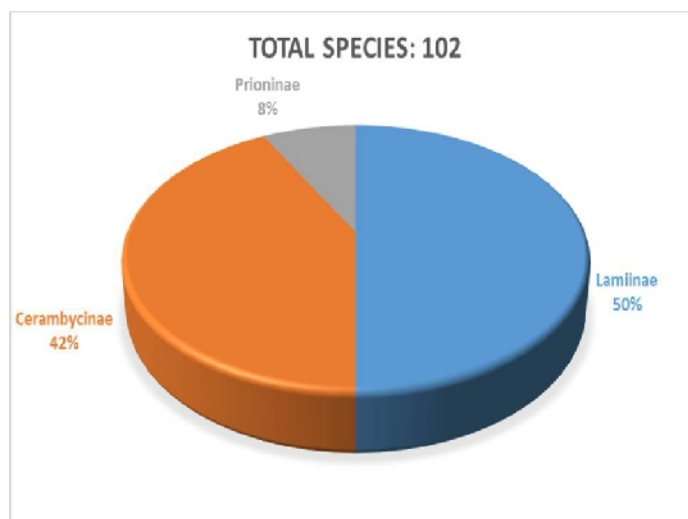


Fig. 11. Species diversity in Assam State (Subfamily-wise).

CONCLUSION

The present study reveals that North-East India is one of the diverse biogeographic zones in India in relation to the faunal composition of Longhorn beetles and mostly enriched with Oriental species (365). 174 species found from these states which are distributed up to Palearctic region. Only 5 species have extended their distribution up to Australasian and 10 up to Afrotropical regions. This review work serves as baseline data of the cerambycid fauna of North-East India. More surveys will definitely bring many more new species or new records of cerambycid beetles from this area in future.

ACKNOWLEDGEMENTS

Authors are grateful to Dr. Kailash Chandra, Director, Zoological Survey of India, Kolkata for giving necessary permissions and constant support. Thanks are also due to Shri K.C. Gopi, Scientist 'F' and in charge of Entomology Division, Zoological Survey of India, Kolkata for kindly making useful suggestions. Authors are also thankful to Miss Priyanka Das, Jr. Res Fellow, Zoological Survey of India for helping in preparation of the manuscript.

REFERENCES

- Agarwala, B.K., Bhattacharjee, P.P. (2012). Long-horned beetles (Coleoptera: Cerambycidae) and Tortoise Beetles (Chrysomelidae: Cassidinae) of Tripura, North-Eastern India with some new additions. *JOTT*. **4**(13): 3223–3227.
- Basak, P.K., Biswas, S. (1985). Fauna of Namdhapa (Insecta: Coleoptera: Cerambycidae). *Rec. Zool.Surv. India*. **82**(1-4): 215-219.
- Breuning, S. (1936). Novae species Cerambycidarum- *Festschr* **60. Geburtst E.Strand. Riga**. **1**: 274-325.
- Breuning, S. (1938). Novae species Cerambycidarum. VI - *Festschr. 60. Geburtst E.Strand. Riga*. **4**: 180-392.
- Breuning, S. (1958). Revision der Gattung Glenea Newmann (Coleoptera: Cerambycidae). *Ent. Arb. Munich*. **9**: 229-351, 804-907.
- Breuning, S. (1965). Revision der 35 Gattung der Pteropliini der asiatischen Region (Col Cerambycidae). *Ent. Arb. Mus. Frey*. **16**: 161-472
- Catalogue of Life. <http://www.catalogueoflife.org>. Accessed 12 February, 2017.
- Cerambycidae of the Palearctic. <http://www.cerambycidae.info>. Accessed 15 February, 2017.
- Cerambycidae of the World. <http://cerambycidae.org>. Accessed 5 February 2017.
- www.cerambycidae.net. Available from: www.cerambycidae.net/catalog.pdf. Accessed 2 February 2017.
- Danilevsky, M.L. (2010). Additions and corrections to the new Catalogue of Palaearctic Cerambycidae (Coleoptera) edited by I. Löbl and A. Smetana. *Russian Entomological Journal*, **19**(3), 215-239. (updated: 07.09.2016).
- Gahan, C.J. (1895). A list of the longicorn Coleoptera collected by Signor Fea in Burma and the adjoining regions with descriptions of the new genera and species. *Viaggio di Leonardo Fea in Birmania e regioni vicine. Annali del Museo Civico di Storia Naturale di Genova*. (2a) **14**(44): 5-104. pl. 1.
- Gahan, C.J. (1906). The Fauna of British India including Ceylon and Burma, Coleoptera, I (Cerambycidae), Taylor & Francis Ltd. London.xvii+329 pp.
- Ghate, H.V., Riphung, S. & Thakur, N.S.A. (2012). First record of the Long-horned Beetle *Sarothroceras lowii* White, 1846 (Cerambycidae: Lamiinae: Lamiini) from India. *JOTT*. **4**(7): 2709–2712.
- Ghate, H.V. & Mitra, B. (2013). First record of a Cerambycid beetle (*Purpuricenus temminckii*) from India. *Taprobanica*. **5**(1): 75-76.
- Gressitt, J.L. & Rondon, J.A. (1970). Cerambycidae of Laos (Disteniidae, Prioninae, Philinae, Aseminae, Lepturinae, Cerambycinae). *Pacif. Insects Monogr.* Bishop Museum, *Honolulu*. **24**: 1-314.

- Hawkeswood, T.J. (2011). Review of the biology and host plants of several species of *Pterolophia* Newman, 1842 (Coleoptera: Cerambycidae) from Papua New Guinea and the Solomon Islands. *Calodema*. **164**: 1–4.
- Hayashi, M. & Makihara, H. (1981). The Cerambycidae (Coleoptera) of Nepal Collected by the Kyushu University Scientific Expedition. *Esakia*. **17**: 183–200.
- Hayashi, M., Nakamura, S., Makihara, H., Saito, A. & Chu, Y. (1988). A list of cerambycidae beetles from Taiwan (I). *Chinese Journal of Entomology*. **8**: 165–184.
- Holzschuh, C. 1999. Beschreibung von 71 neuen Bockkäfern aus Asien, vorwiegend aus China, Laos, Thailand und Indien (Coleoptera, Cerambycidae). *Schriftenreihe der Forstlichen Bundesversuchsanstalt (FBVA-Berichte)*. **110**: 1–64.
- Holzschuh, C. 2003. Description of 72 new longhorn beetles from Asia, mostly from China, India, Laos and Thailand, Coleoptera, Cerambycidae. *Entomologica Basiliensia*. **24**(25): 147–241.
- Hope, F.W. (1839). Descriptions of some new insects collected in Assam, by William Griffith, Esq, Assistant Surgeon on the Madras Medical Establishment. *Proceedings of the Linnean Society of London*. **1**: 42–44.
- Hope, F.W. (1843). On some rare and beautiful insects from Silhet, chiefly in the collection of Frederick John Parry. (Coleoptera, Lepidoptera, Hemiptera). *Trans. Lin. Soc. Lond.* **19**: 103–112; 131–136.
- Hope, F.W. 1845b. Descriptions of new species of Coleoptera, from the Kasyah Hills, near the boundary of Assam, in the East Indies, lately received from Dr. Cantor. *Trans. Lin. Soc. Lond.* **4**: 73–77.
- Hunt, T., Bergsten, J., Levkaničová, Z. et al. (2007). A Comprehensive Phylogeny of Beetles Reveals the Evolutionary Origins of a Super-radiation. *Science*. **318**: 1913–1916.
- Insectoid.info. <http://insectoid.info/>. Accessed 14 January 2017.
- Kapur, A.P. (1954). Contribution to a knowledge of the Fauna of Manipur State, Assam. *Rec. zool. Surv. India*. **52**: 313–348.
- Lamiaires du Monde. <http://www.lamiinae.org>. Accessed 8 February 2017.
- Lawrence, J.F. and Newton, A.F. (1995). Families and subfamilies of Coleoptera (with selected genera, notes, references and data of family-group names). In: Pakaluk J, lipi ski SA (Eds) *Biology, Phylogeny, and Classification of Coleoptera. Papers celebrating the 80th Birthday of Roy Crowson*. Warszawa: Muzeum i Instytut Zoologii PAN 779–1006.
- Map Courtesy: Map of India, Available from: <http://www.d-maps.com>
- Mitra, B. & Majumder, A. (2014). New records of Longicorn beetles from Arunachal Pradesh (Coleoptera: Cerambycidae). *BIONOTES*. **16**(1): 25–26.
- Mitra, B., Das, P., Mallick, K., Chakraborti, U., Majumder, A. (2016a). New records of long horn beetles (Cerambycidae: Coleoptera) from Manipur State India with Checklist. *JOZS*. **3**(1): 19–26.
- Mitra, B., Das, P., Chakraborti, U., Mallick, K., Majumder, A. (2016b). Longhorn beetles (Cerambycidae: Coleoptera) of Meghalaya with eight new records. *JOZS*. **3**(4): 39–47.
- Mitra, B., Das, P., Chakraborti, U., Mallick, K., Chakraborty, K. (2016c). Round Headed Borers (Cerambycidae: Coleoptera) of Mizoram. *EASL*. **3**(3): 10–12.
- Mitra, B., Das, P., Chakraborti, U., Mallick, K., Chakraborty, K. (2016d). Long Horn Beetles (Cerambycidae: Coleoptera) of Nagaland, India. *Journal of Global Science*. **5**(4): 3963–3969.
- Mukhopadhyay, P., Biswas, S. (2000a). Insecta: Coleoptera: Cerambycidae. Fauna of Meghalaya, State Fauna Series, *Zoological Survey of India*. **4**(5): 41–67.
- Mukhopadhyay, P., Biswas, S. (2000b). Coleoptera: Cerambycidae. Fauna of Tripura, State Fauna Series, *Zoological Survey of India*. **7**(3): 139–142.
- Mukhopadhyay, P., Halder, S.K. (2003). Insecta: Coleoptera: Cerambycidae. Fauna of Sikkim. State Fauna Series, *Zoological Survey of India*. **9**(3): 181–199.
- Mukhopadhyay, P., Halder, S.K. (2004). Insecta: Coleoptera: Cerambycidae. Fauna of Manipur, State Fauna Series, *Zoological Survey of India*. **10**(2): 421–431.
- Mukhopadhyay, P. (2011). On a collection of Insecta: Coleoptera: Cerambycidae and Curculionidae (Brachyderinae and Otiorrhynchinae) from Uttarakhand. *Rec. zool. Surv. India*. **111**(2): 75–88.
- Napp, D.S. (1994). Phylogenetic relationships among the subfamilies of Cerambycidae (Coleoptera: Chrysomeloidea). *Revista Brasileira de Entomologia*. **38**: 265–419.
- Özdikmen, H. (2006). Contribution to the knowledge of Turkish longicorn beetles fauna (Coleoptera: Cerambycidae). *Mun. Ent. Zool.* **1**(1): 71–79.
- Özdikmen, H. (2008). A nomenclatural act: some nomenclatural changes on palaeartic longhorned beetles (Coleoptera: Cerambycidae). *Mun. Ent. Zool.* **3**: 707–715.
- Saha, S. and Ray Chaudhuri, D. (2000). Longicorn Beetles (Cerambycinae, Prioninae: Cerambycidae) of Buxa Tiger Reserve, Jalpaiguri, West Bengal. *JBNHS*. **97**(1): 78–91.
- Saha, S., Özdikmen, H., Biswas, M.K., Ray Chaudhuri, D. (2013). Exploring Flat Faced Longhorn Beetles (Cerambycidae: Lamiinae) from the Reserve Forests of Dooars, West Bengal, India. Hindawi Publishing Corporation ISRN Entomology. ArticleID 737193, 8 pages.
- Sengupta, C.K., Sengupta, T. (1981). Cerambycidae (Coleoptera) of Arunachal Pradesh. *Rec. Zool. Surv. India*. **78**: 133–154.
- Singh, O.T., Chakravorty, J., Varatharajan, R. (2010). Entomofauna of Kane Wildlife Sanctuary, Arunachal Pradesh, North-Eastern India. *JOTT*. **2**(13): 1392–1400.
- Sýkorová, M. (2008). Molecular phylogeny of subfamilies Spondylidinae and Lepturinae based on mitochondrial 16S rDNA, BCC. [PhD Thesis]. eské Bud jovice, Czech Republic: Faculty of Science, University of South Bohemia.
- Szeoke, K., Hegyi, T. (2002). A szolo uj kartevoje az amerikai darazscincer (*Neoclytus acuminatus* Olivier). *Novenyvedelem Majus*. **38**: 268–269.
- Thakur, N.S.A., Firake, D.M., Behere, G.T., Firake, P.D., Saikia, K. (2012). Biodiversity of Agriculturally Important Insects in North-Eastern Himalaya: An Overview. *Indian Journal of Hill Farming*. **25**(2): 37–40.