# CERAMBYCIDAE (COLEOPTERA) OF ARUNACHAL PRADESH

By

CHANDAN KUMAR SENGUPTA AND TAPAN SENGUPTA

Zoological Survey of India, Calcutta

(With 13 Text-figures)

#### INTRODUCTION

The representatives of the family Cerambycidae are commonly known as longhorn beetles and can be easily recognised from other families of Coleoptera by its elongated and somewhat parallel-sided body, with long antennae and pseudotetramerous tarsi. Fowler (1912) mentioned that around 1000 species belong under this family from India, of which Cerambycinae represents 400 species and Lamiinae represents 600 species. Beeson and Bhatia (1939) noted 1182 species of Cerambycinae and 712 to Lamiinae. Around 350 species are known to attack various trees, shrubs, wood-climbers and vines, of which 37 species of Cerambycidae are recorded from Shorea robusta alone and the species Stromatium barbatum (Fabricius) bores 311 types of trees.

The present work based on the collection of Cerambycidae, collected by the various survey parties from Zoological Survey of India. So far, there was no record of Cerambycidae from Arunachal Pradesh (NEFA). In the present study sixteen species are recorded for the first time from Arunachal Pradesh, their distinguishable characters along with distributional record and illustrations (dorsal view) of each species are given below.

LIST OF SPECIES
Family CERAMBYCIDAE
Subfamily CERAMBYCINAE
Tribe Cerambycini

- 1. Aeolesthes holosericea (Fabricius)
- 2. Aeolesthes sarta (Solsky)

#### Tribe Rosaliini

- 3. Rosalia decempunctata (Westwood)
- 4. Rosalia lateritia (Hope)

Tribe Clytini

- 5. Demonax leucoscutellatus (Hope)
- 6. Demonax albicinctus (Hope)
- 7. Caloclytus annularis (Fabricius)

Subfamily LAMIINAE

Tribe Lamiini

8. Dihammus griseipennis Thomson

Tribe Pteropliini

9. Sthenias grisator Fabricius

Tribe Batocerini

10. Batocera (Semibatocera) parryi Hope

Tribe Gnomini

11. Imantocera plumosa Olivier

Tribe Ceroplesini

12. Diastocera wallichi Hope

Tribe Apomecynini

13. Apomecyna neglecta Pascoe

Tribe Saperdini

- 14. Oberea posticata Gahan
- 15. Nupserha fricator Dalman

Tribe Phytoeciini

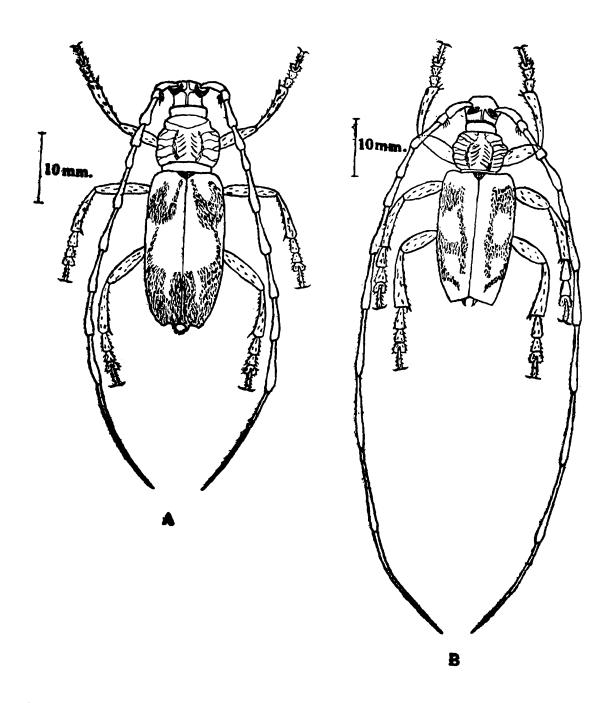
16. Linda rubescens Hope

### 1. Aeolesthes holosericea (Fabricius)

- 1787. Cerambyx holosericea Fabricius, Mant. Ins., 1:135.
- 1906. Aeolesthes holosericea: Gahan, Fauna British India, Cerambycidae, 1:127.
- 1914. Aeolosthes holosericea: Stebbing, Indian Forest Insects (Coleoptera): 301 305.
- 1939. Aeolesthes holosericea: Beeson and Bhatia, Indian Forest Records (New Series) Entomology, 5 (1):15-16.

General appearance (Text-fig-1A) moderately long, somewhat parallel-sided, dorsal surface blackish to reddish brown, covered with

greyish or golden brown silky pubescence. Head moderately long and narrow, eyes coarsely facetted and anterior part of head somewhat wrinkled. Antenna of markedly long, about 3 times as long as body, joints 1—5 slightly thickened, joints 5—11 progressively long and thin, and joint 11 twice as long as joint 10. Prothorax as broad as long, lateral margins slightly wavy, pronotum wrinkled and covered with very fine silky pubescence. Scutellum transverse, triangular and covered with whitish pubescence. Elytra almost parallel-sided, apex truncated, dorsal surface of elytra covered with fine silky pubescence in patches. Legs moderately long covered with very fine whitish pubescence. Length 20—35 mm. and breadth 5—10 mm.



Text-fig. 1. A- Aeolesthes holosericea (Fabricuus) 3; B- Aeolesthes sarta (Solsky) 3;

Material examined: 50. ex. Arunachal Pradesh: Kameng, 10—21. iv. 1961, K. C. J. Coll. 5 ex; Kameng, 3. viii. 1961, S. Biswas, Coll. 1 ex., and Subansiri Division, 14. v. 1966, A. N. T Joseph Coll. 1 ex.; and 43 ex. also studied from other states of India, and from Sri Lanka, Bhutan, Burma, Baluchistan and Indonesia.

Distribution in India: So far, this species was recorded from Assam, West Bengal, Bihar, Orissa, Uttar Pradesh, Punjab, Kashmir, Madhya Pradesh, Maharashtra, Andhra Pradesh, Karnataka, Tamil-Nadu, Andaman and Nicobar Island. In the present study this species is recorded for the first time from Arunachal Pradesh.

Remarks: This is a very common species of Aeolesthes, occur all over India. Chief distinguishable characters are: usually smaller than Aeolesthes sarta (Solsky), pubescence with golden lustre, and prothorax almost as broad as long. This species is recorded from Acacia arabica, Aegle marmelos, Alnus nitida, Bauhinia acuminata, Bombax malabaricum, Chloroxylon swietenia, Duabanga sonneratioides, Eucalyptus robusta, Ficus bengalensis, Grewia oppositifolia, Hardwickia binata, Kydia calycina, Lannea grandis, Mangifera indica, Pinus longifolia, Shorea robusta, Tectona grandis, Terminalia tomentosa. The larva bores heart wood and sap wood.

#### 2. Aeolesthes sarta (Solsky)

- 1871. Pachydissus sarta Solsky, Hor. Soc. Ent. Ross., 8: 150.
- 1905. Aealesthes sarta: Gahan, Fauna British India, Cerambycidae, 1:129.
- 1914. Aelesthes sarta: S tebbing, Indian Forest Insects (Coleoptera): 307-317.
- 1939. Aeolesthes sarta: Beeson and Bhatia, Indian Forest Records (New Series) Entomology, 5 (1): 19-20.
- 1941. Aeolesthes sarta: Beeson, Ecology and control of the Forest Insects, Pt. 1: 108-109.

General appearance (Text-fig. 1B) somewhat similar to Aeolesthes holosericea. Dorsal surface dark, reddish brown, covered with fine dense greyish silky pubescence. Head moderately large with coarsely facetted eyes. Antenna similar to Aeolesthes holosericea. Prothorax almost as long as broad, lateral margins undulated, slightly narrowed in front and benind, pronotum irregularly wrinkled. Scutellum triangular and less transverse than Aeolesthes holosericea. Elytra parallel-sided, dark, reddish brown, covered with fine silky greyish pubescence in patches, and inner apical angle armed with a spine.

Legs moderately long and covered with fine, dense, greyish pubescence. Length 33—44 mm. and breadth 9—13.

Material examined: 6 ex. Arunachal Pradesh: Kameng, 12. iv. 1961, K. C. Jayram Coll. 1 ex., and Subansiri Division, 10.v. 1966, A. N. T Joseph Coll. 1 ex. and 4 ex. also studied from Baluchistan.

Distribution in India: So far, this species was recorded from Kashmir. In the present study this species is recorded for the first time from Arunachal Pradesh.

Remarks: This species is slightly larger than Aeolesthes holosericea and unlike other species of Aeolesthes elytral pubescence have silvery lustre. This species is recorded from Acer cultratum Aesculus indica, Corylus colurna, Juglans regia, Platanus orientalies, Populus alba, Prunus armeniaca, Pyrus malus, Salix alba, Ulmus wallichiana. Larva bores heart wood and sap wood. Beeson (1941) reported that this species is injurious to avenue and shade trees along road, specially poplars and willows.

#### 3. Rosalia decempunctata (Westwood)

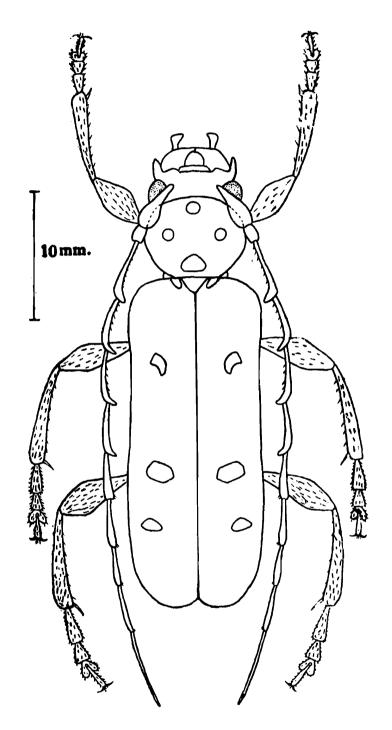
1848. Purpuricenus decempunctata Westwood, Cab. Or. Ent: 59.

1906. Rosalia decempunctata: Gahan, Fauna British India (Cerambycidae), 1:179.

General appearance (Text-fig. 2) moderately large, depressed and parallel-sided. Pronotum and elytra reddish and head black. Head sub-vertical, expanded, genae long and can be seen from dorsal surface, eyes finely facetted. Antenna of 3 markedly longer than body and in è slightly so or shorter, joint 1 sparsely punctured, joint 3 slightly longer than joint 4, joints 3—5 with a apical blunt spine. Prothorax globose narrowed in front and behind, pronotum with four distinct black spots, two median and two lateral, the anterior median spot smaller than posterior median one. Scutellum black and elongated. Elytra long, parallel-sided, covered with very fine and minute whitish pubescence, each elytron with four longitudinally arranged black spots. Legs moderately long and black and its femora distinctly widened towards apex. Ventral surface of head, mesom etasterna and abdomen black and prosternum reddish. Length 30—35 mm. and breadth 5—9 mm.

Material examined: 11 ex. runachal Pradesh: Kameng, 22. vi. 1961, K. C. J. Coll. 1 ex.; and 10 ex. also studied from other states of India and from Burma.

Distribution in India: So far, this species was recorded from West Bengal, Sikkim and Assam. In the present study this species is recorded for the first time from Arunachal Pradesh.

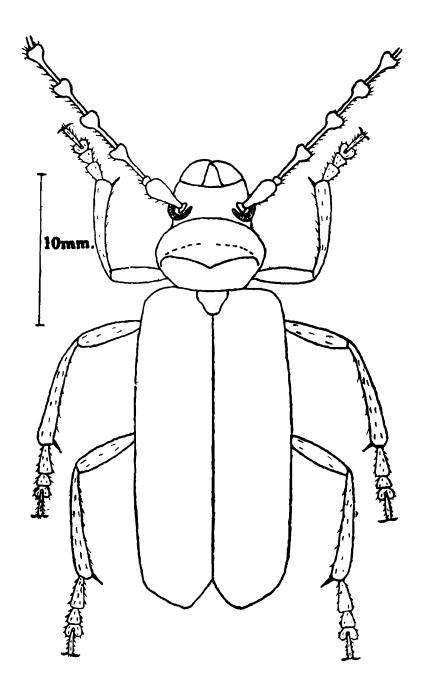


Text-fig. 2. Rosalia decempunctata (Westwood) &;

# 4. Rosalia lateritia (Hope)

- 1831. Lamia lateritia Hope, Gray's. Zool. Misc.: 27.
- 1906. Rosalia lateritia: Gahan, Fauna British India (Cerambycidae), 1:177
- 1939. Rosalia lateritia: Beeson and Bhatia, Indian Forest Records (New Series) Entomology, 5 (1): 172.

General appearance (Text-fig. 3) somewhat similar to Rosalia decempunctata but slightly smaller than the latter species, more parallel-sided, head blackish red, pronotum dark reddish brown, elytra slightly paler and red, and ventral surface black. Head with genae slightly developed, and eyes finely facetted. Apices of antennal joints 3—6 markedly enlarged and globular. Prothorax globose, a distinct transverse raised tubercle-like structure present across middle in 2 Scutellum heart-shaped and dark blackish red. Unlike Rosalia decempunctata pronotum and elytra devoid of spot. Length 25—32 mm. and breadth 9—10 mm.



Text-fig. 3. Rosalia lateritia (Hope)?;

Material examined: 2 ex. Arunachal Pradesh: Kameng, 26. iii. 1961, K. C. J. Coll. 1 ex., and 1 ex. also studied from Uttar Pradesh.

Distribution in India: So far, this species was recorded from Himalayas, West Bengal, Uttar Pradesh and Kerala. In the present study this species is recorded for the first time from Arunachal Pradesh.

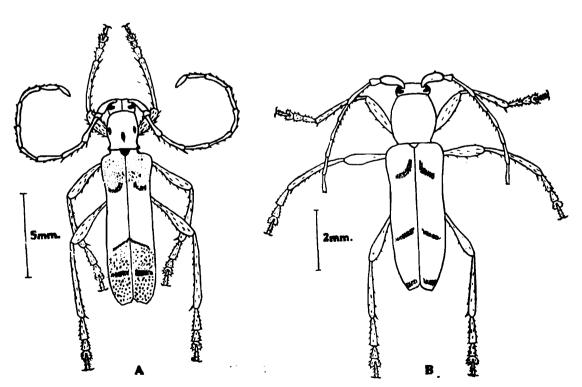
Remarks: This is a distinct species of Rosalia Serville, and can be easily separated from Rosalia decempunctata by its characteristic shape of prothorax, head, pronotum dark reddish brown and apical angles of antennal joints 3—5 markedly enlarged and globular. Beeson and Bhatia (1939) recorded this species from Quercus dilatata and Quercus semicarpifolia.

### 5. Demonax leucoscutellatus (Hope)

1831. Clytus leucoscutellatus Hope, Gray's Zool. Misc.: 28.

1906. Demonax leucoscutellatus: Gahan, Fauna British India (Cerambycidae), 1:26.

General appearance (Text-fig. 4A) rather small, narrow, elongated and parallel-sided. Dorsal surface yellowish with characteristic marking on pronotum and elytra. Head with finely facetted eyes. Antenna moderately long, slender, joints 3—11 subequal, joints 3 and 4 armed with an apical spine. Prothorax elongated, slightly narrowed in front and behind, lateral margins smooth and slightly rounded, pronotum yellowish brown and with a median basal elongated blackish spot and a pair of lateral spots across middle. Scutellum moderately large, trian-



Text-fig. 4. A- Demonax leucoscutellatus (Hope) & ; B- Demonax albicinctus (Hope) Q

gular and its apical margin slightly rounded and covered with white pubescence. Elytra almost parallel-sided and slightly sinutated across middle, apical margin truncated, dorsal surface brownish testaceous and blackish near apex, and with three transverse rows of whitish fine silky pubescence. Length 10—12 mm. and breadth 2—2.5 mm.

Material examined: 4 ex. Arunachal Pradesh: Subansiri Division, 18.v.1966, A. N. T Joseph Coll. 1 ex., and 3 ex. also studied from West Bengal.

Distribution in India: So far, this species was recorded from Sikkim, Assam, Nagaland, Manipur. In present study this species is recorded for the first time from Arunachal Pradesh.

Remarks: This species can be easily separated from Demonax albicinctus (Hope) by its antennal joints 3 and 4 armed with a apical spine, and prothorax more elongate and less convex.

#### 6. Demonax albicinctus (Hope)

1831. Clytus albicinctus Hope, Gray's Zool. Misc.: 28.

1906. Demonax albicinctus: Gahan, Fauna British India (Cerambycidae), 1:296.

General appearance (Text-fig. 4B) small, narrow and somewhat cylindrical. Head and prothorax charcoal black, eyes finely facetted. Antenna moderately long, scape rather large and broad, joints 3-5 spine. armed distinct apical Prothorax elongated, cylindrical. broadest at posterior one-third, narrowed in front and slightly so posteriorly, lateral margin smooth, pronotum densely punctured and covered with fine whitish minute recumbent pubescence. Scutellum moderately large, triangular and covered with fine, minute dense greyish pubescence. Elytra parallel-sided, apical margin reddish brown and with three transverse rows of whitish pubescence. Legs long, slender, brownish and covered with greyish pubescence. Length 7-9 mm. and breadth 1.5—2 mm.

Material examined: 22 ex. Arunachal Pradesh: Kameng Division, 1 v 1966, A. N. T. Joseph Coll. 1 ex., Kameng, 3.vii.1961, S. Biswas Coll. 1 ex., and Kameng, 13.vi. 1961, K. C. J. Coll. 1 ex., and 19 ex. also studied from various localities of West Bengal.

Distribution in India: So far, this species was recorded from West Bengal. In the present study this species is recorded for the first time from Arunachal Pradesh.

Remarks: Unlike Demonax leucoscutellatus this species have prothorax and head charcoal black and antennal joint 2 longer than its width.

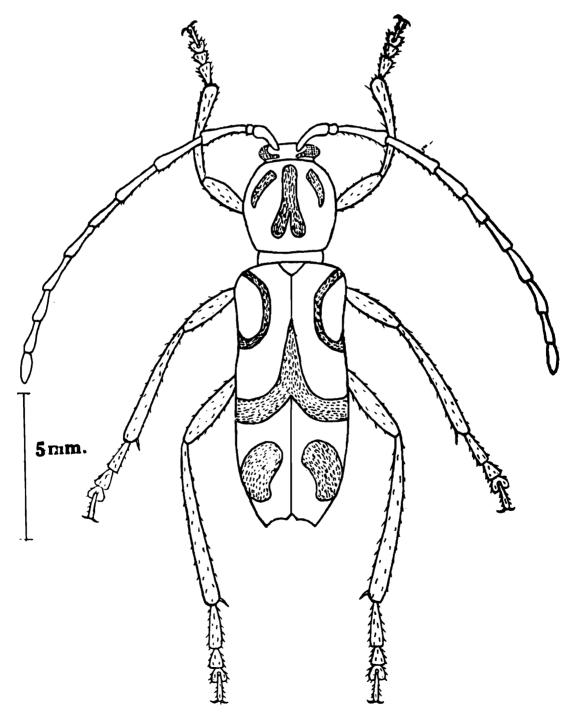
## 7. Caloclytus annularis (Fabricius)

1787. Callidium annularis Fabricius, Mant. Ins., 1:156.

1906. Caloclytus annularis: Gahan, Fauna British India (Cerambycidae), 1: 261

1914 Caloclytus annularis: Stebbing, Indian Forest Insects (Coleoptera): 354-3554

General appearance rather small, narrow and elongated, dorsal surface yellowish with characteristic dark brown marking on pronotum and elytra (Text-fig. 5). Head small with finely facetted eyes. Antenna usually slightly shorter than body length, joints 3—11 subequal. Prothorax subglobular, slightly longer than broad, lateral margin



Text-fig. 5. Caloclytus annularis (Fabricius) 3;

smooth. Pronotum with a median and a pair of lateral brown markings. Elytra moderately long, somewhat parallel-sided and truncated at apex, each elytron with a pair of dark brown anterior bands and a rounded posterior band. Legs reddish brown. Length varies from 10—15 mm, and breadth 2.5—4 mm.

Material examined: 67 ex. Arunachal Pradesh: Kameng Division, 20.v.1961, K. C. J. Coll. 1 ex., Kameng, 10.vii. 1961, S. Biswas Coll. 1 ex., and Kameng, 6.v.1966, A. N. T Joseph Coll. 1 ex., and Subansiri Division, 18-20.v 1966, A. N. T Joseph Coll. 4 ex. and 60 ex. also studied from other states of India and from Bangladesh and Burma.

Distribution in India: So far, this species was recorded from North west and North east India. In the present study this species is recorded from Arunachal Pradesh and also from Kerela.

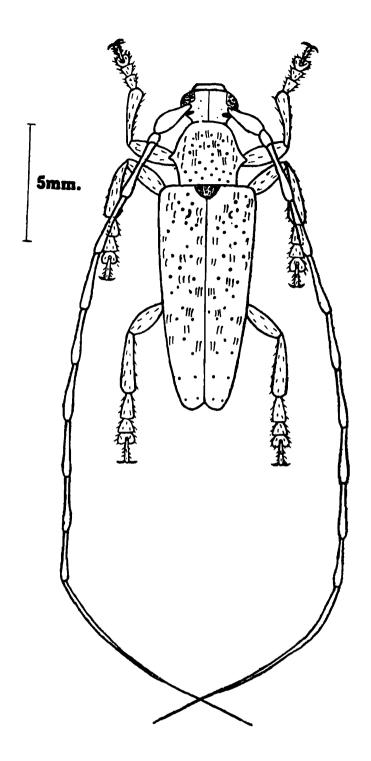
Remarks: This is one of the commonest species of Caloclytus, which can be easily recognised from other species of this genus by its antenna being slightly shorter than body length, prothorax subglobular and elytra moderately long and its characteristic colour pattern (Fig. 7). Stebbing (1914) recorded this species from Bambusa sp., larva bores nto the tissue of the walls of Bamboo.

# 8. Dihammus griseipennis Thomson

- 1857. Dihammus griseipennis Thomson, Archiv. Entomol., 1:296.
- 1939. Dihammus griseipennis: Beeson and Bhatia. Indian Forest Records (Nem series) Entomology, 5 (1): 67.

General appearance (Text-fig. 6) moderately large, rather narrow, broadest at base of elytra and narrowed in front and behind. Dorsal surface uniformly charcoal black and clothed with fine, short, dense whitish pubescence, puncturation irregular, small and deep. Head moderately large with coarsely facetted eyes. Antenna markedly long and slender, more than three times of total length of body and joint 11 markedly long. Prothorax as long as broad, narrowed in front and behind, lateral margin armed with a median prominent spine projecting outwordly. Scutellum moderately large, transversely triangular and covered with dense whitish pubescence. Elytra moderately long, narrowed posteriorly, puncturation sparse, deep and irregular. Legs rather short. Length 10—19 mm. and breadth 3—5 mm.

Material examined: 9 ex. Arunachal Pradesh: Subansiri Division, 17 v 1966, A. N. T Joseph Coll. 1 ex., and Kameng Division, 25. v 1961, K. C. J. Coll. 1 ex. and 7 ex. also studied from other states of India.



Text-fig. 6. Dihammus griseipennis Thomson;

Distribution in India: So far, this species was recorded from West Bengal. In the present study this species is recovered for the first time from Arunachal Pradesh and Sikkim.

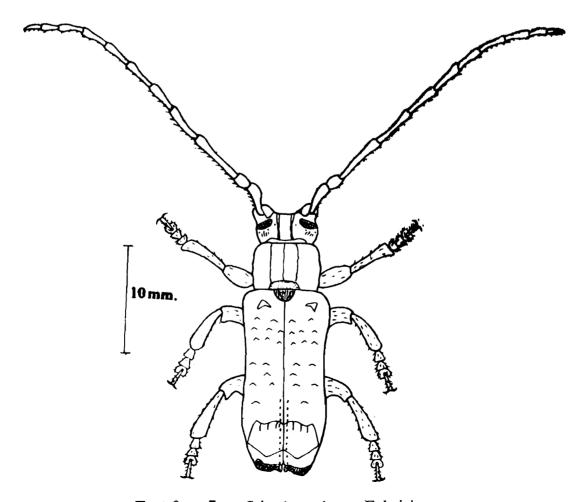
Remarks: This is a distinct species of Dihammus Thomson and can be easily recognised from other species of this genus by its dorsal surface being charcoal black, antenna markedly long, elytral surface irregularly punctured. Beeson and Bhatia (1939) recorded this species from Strobilanthes acrocephalus. Aurivillius (1921-23) placed the genus Dihammus under the tribe Monochamini but Martins suggested

authors (personal communication) that the genus *Dihammus* has been transferred to the tribe Lamiini.

#### 9. Sthenias grisator Fabricius

- 1787. Sthenias grisator Fabricius, Mant, Ins. 1:136.
- 1914. Sthenias grisator: Stebbing, Indian Forest Insects (Coleoptera): 377-378
- 1939. Sthenias grisator: Beeson and Bhatia, Indian Forest Records (New Series Entomology, 5 (1): 174.

General appearance (Text-fig. 7) moderately large, rather broad, short and somewhat parallel-sided. Dorsal surface greyish brown and dull with some darker irregular tubercles. Head broader than long, strongly prognathus and eyes coarsely facetted. Antenna rather short and its joints 3—11 progressively shorter. Protnorax slightly long, with two tubercles across the middle, lateral margins slightly undulated. Scutellum transverse and semicircular. Elytra slightly broader than prothorax, somewhat parallel-sided and lateral margins slightly undulated at middle, dorsal surface covered with many small, darker spinous tubercles, apical part of elytra depressed and demarketed with darker hairs. Legs rather short and thick. Length 15-25 mm. and breadth 5-8 mm.



Text-fig. 7. Sthenias grisator Fabricius;

Material examined: 5 ex. Arunachal Pradesh: Subansiri Division, 18. v 1966, A. N. T Joseph Coll. 1 ex., and 4 ex. also studied from other states of India.

Distribution in India: So far, this species was recorded from Uttar Pradesh, Rajasthan, Maharashtra, Karnataka and Tamil Nadu. In the present study this species is recorded for the first time from Arunachal Pradesh.

Remarks: Beeson and Bhatia (1939) noted this species as a pest of ornamental climbers, grape vines, flowering shrubs, mulberry plants and also recorded from Beaumontia grandiflora, Chloroxylon swietenia, Erythrina indica, Manihot utilissima, Morus alba, Nerium odorum, Vitis vinifera, Wrightia tinctoria. Aurivillius (1921-23) placed the genus Sthenias under the tribe Niphonini but Martins suggested authors (personal communication) that the genus Sthenias has been transferred to the tribe Pteropliini.

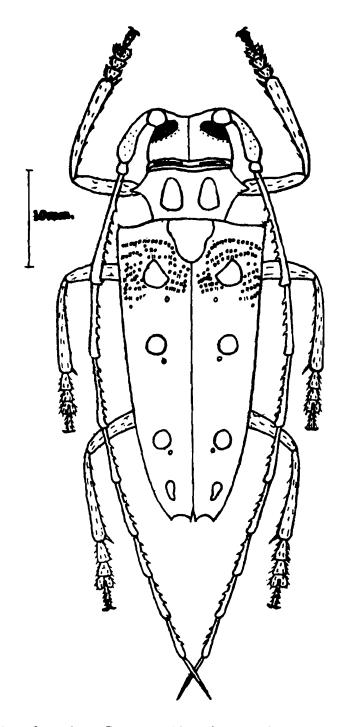
# 10. Batocera (Semibatocera) parryi Hope

1845. Batocera parryi Hope, Trans. Ent. Soc. Lond., 4:77.

1921. Batocera (Semibatocera) parryi: Aurvillius, Coleopt. Cat., Berl., 23 (73): 124

General appearance (Text-fig. 8) large, rather broad at the base of elytra and narrowed posteriorly, and dorsal surface charcoal grey. Head large with coarsely facetted eyes. Antenna moderately long, scape large elongated, pedicel small, transverse, joints 3—11 subequal and joints 3—10 armed with distinct apical spine. Prothorax moderately transverse and its lateral margin armed with median spine, pronotum with a pair of median white spots. Scutellum heart shaped and covered with fine white hairs. Elytra moderately broad at base, progressively narrowed posteriorly, basal one-fourth of elytra granulated, humeral angle armed with small acute spine, each elytron with four distinct white spots arranged in longitudinal rows, apical margin truncated and armed with spine Leg moderately long and charcoal grey. Length 34-44 mm. and breadth 12-20 mm.

Material examined: 14 ex. Arunachal Pradesh: Subansiri Division, 17 v 1966, A. N. T Joseph Coll. 1 ex., and Kameng Division, 16.v.1961, K. C. J. Coll. 1 ex., and 12 ex. also studied from other states of India.



Text-fig. 8. Batocera (Semibatocera) parryi Hope;

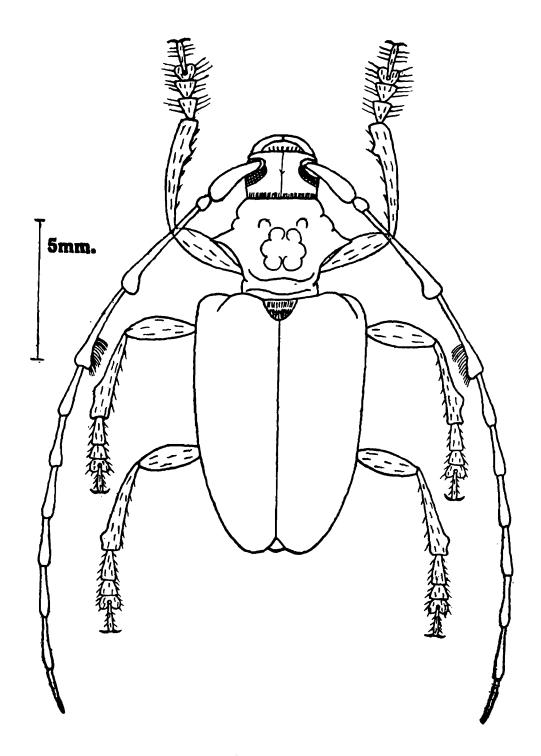
Distribution in India: Aurivillius (1921-23) listed this species from Assam and Sikkim. In the present study this species is recorded for the first time from Arunachal Pradesh and West Bengal.

# 11. Imantocera plumosa Olivier

1792. Imantocera plumosa Olivier, Encycl. meth. Ins., 7: 463.

General appearance (Text-fig. 9) rather short, broad at base of elytra and narrowed in front and behind. Dorsal surface blackish brown, clothed with dense silvery greyish pubescence, with distinct

irregular and small tubercles. Head moderately long, narrow and eyes coarsely facetted. Antenna moderately long, joint 4 with tuft of apical hairs, joints 5—11 subequal and shorter than joint 4. Prothorax as broad as long, pronotum wrinkled, lateral margins armed with median spine. Soutellum semicircular and covered with dense white pubescence. Elytra slightly longer than broad, blackish, surface rough, covered with moderately dense and small tubercles, which are less prominent posteriorly. Legs rather short and front tarsi densely hairy. Length 16—20 mm. and breadth 6—7 mm.



Text-fig. 9. Imantocera plumosa Olivier

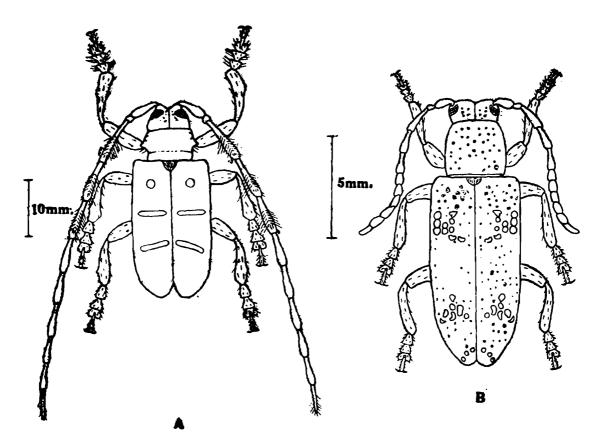
Material examined: 9 ex. Arunachal Pradesh: Subansiri Division, 17—19. v 1966, A. N. T Joseph Coll. 3 ex., and 6 ex. also studied from other states of India and from Bangladesh.

Distribution in India: Aurivillius (1921—23) listed this species from Java, Borneo, Flores. In the present study this species is for the first time recorded from India: Arunachal Pradesh, Assam and Sikkim.

# 12. Diastocera wallichi Hope

- 1831. Diastocera wallichi Hope, in Gray Zool. Misc.; 27.
- 1939. Diastocera wallichi: Beeson and Bhatia, Indian Forest Records (New Series) Entomology, 5 (1): 58.

Genearl appearance (Text-fig. 10A) large, somewnat parallel-sided, dorsal surface bronzy green purple and covered with minute, dense scale-like pubescence, colour varies at different angles of light. Head prognathus and brownish with green and purple lustre and eyes finely facetted. Antenna greenish, joints 3—5 with muff of long silky black hairs and joint 11 with fine and short hairs. Prothorax greenish, transverse, lateral margin of protnorax with a pair of small somewhat blunt median spines. Scutellum as broad as long, slightly narrowed posteriorly and brownish with purple lustre. Elytra moderately long, parallel-sided, light greenish with purple tinge, each elytron



Text-fig. 10. A- Diastocera wallichi Hope; B- Apomecyna neglecta Pascoe.

with two anterior rounded spots covered with long black erect hairs and posterior half with a pair of transverse band covered with velvety black hairs. Legs rather short, brownish with green lustre. Length 25—37 mm. and breadtn 9—11 mm.

Material examined: 45 ex. Arunachal Pradesh: Kameng Division, 13—25. vi. 1961, K. C. J. Coll. 3 ex., and 42 ex. also studied, from other states of India.

Distribution in India: So far, this species was recorded from Assam, West Bengal and Uttar Pradesh. In the present study this species is recorded for the first time from Arunacnal Pradesh, Sikkim and Bihar.

Remarks: Beeson and Bhatia (1939) recorded this species from Bombax malabaricum.

# 13. Apomecyna neglecta Pascoe

1865. Apomecyna neglecta Pascoe, Trans. Ent. Soc. Lond., 3 (3): 152

Genearl appearance (Text-fig. IOB) rather short and compact, dorsal surface dull reddish brown and covered with thick wnitish pubescence, puncturation irregular, deep and darker. Antenna short, thick, joints 3—5 distinctly longer than joints 6—11, which are subequal Head with black and coarsely facetted eyes. Prothorax slightly elongated and narrowed in front, front angle rounded, hind margin bordered puncturation deep, prominent and irregular. Scutellum slightly transverse, semicircular and whitish. Elytra parallel-sided with more or les, regular rows of deep and distinct punctures and each elytron with groups of white spots. Legs rather short and brownish. Lenght 11—14 mm. and breadth 4—5 mm.

Material examined: 16 ex. Arunacnal Pradesh: Subansiri Division, 18. v 1966, A. N. T Joseph Coll. 1 ex., and 15 ex. also studied from other states of India.

Distribution in India: Aurvillius (1921-23) listed this species from Bengal, Ceylon, Japan. In the present study this species is recorded for the first time from Arunachal Pradesh, Tamil Nadu and Andaman Island.

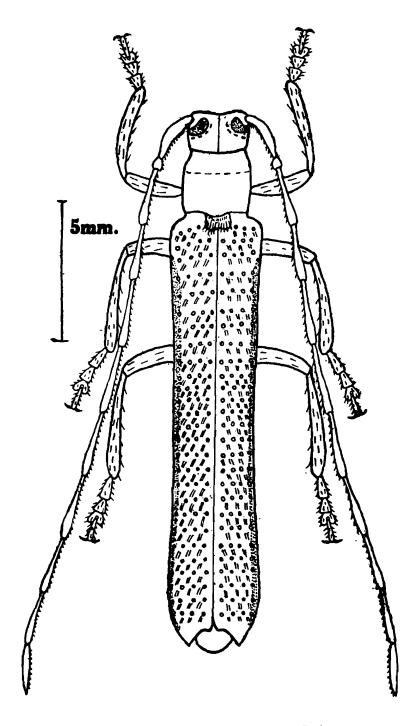
#### 14. Oberca posticata Gahan

1895. Oberea posticata Gahan, Ann. Mus. Civ. Genoya, 34:94.

General appearance (Text-fig. 11) narrow, slender, long and parallel-sided. Dorsal surface yellowish brown, elytra with rows of

small. deep, regular and darker punctures. Head moderately long and brown, and eyes finely facetted. Antenna long, narrow and blackish brown, pedicel markedly small. Prothorax elongated, cylindrical and parallel-sided, pronotum yellowish brown, impunctate and glabrous. Scutellum transverse and slightly bilobed posteriorly and covered with short hairs. Elytra markedly long and slender, parallel-sided, lateral margin darker covered with white dense and short pubescence, and apex of elytra truncated. Legs rather short and dark brown. Length 10—22 mm. and breadth 2—3.5 mm.

Material examined: 33 ex. Arunachal Pradesh: Kameng



Text-fig. 11. Oberea posticata Gahan;

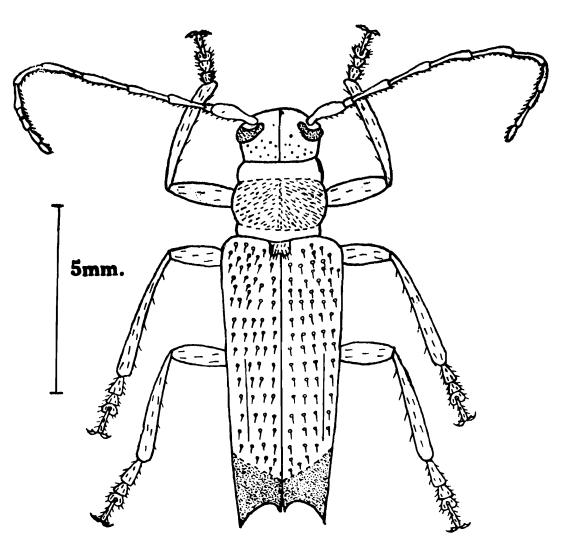
Division, 25—29. vi. 1961, K. C. J. Coll. 2 ex., and Kameng, 6. v. 1966 A. N. T Joseph Coll. 1 ex., and 30 ex., also studied from other states of India.

Distribution in India: Aurivillius (1921-23) listed this species from Burma. In the present study this species is for the first time recorded from India: Arunachal Pradesh, West Bengal, Sikkim and Andaman Island.

# 15. Nupserha fricator Dalman

1817. Nupserha fricator Dalman, in Schonh. Syn. Ins., 1, 3, Append, 183.

General appearance (Text-fig. 12) moderately large and somewhat parallel-sided. Dorsal surface yellowish brown, elytra slightly narrowed posteriorly, clothed with erect long yellowish hairs and fine dense minute pubescence, elytral puncturation large, deep and arranged in rows. Head black, transverse, vertex distinctly punctured, and eyes large, slightly projected and finely facetted. Antenna black, rather short and slender, joints 6—10 progressively shorter. Prothorax as



Text-fig. 12. Nupserha fricator Dalman;

long as broad, reddish brown, lateral margin of prothorax devoid of spines, broadest at middle and constricted in front and behind, pronotum impunctate and finely pubescent. Scutellum moderately large, slightly long and its apical margin bilobed and pubescent. Elytra moderately long, yellowish brown and its apical one-fifth black, lateral margins of elytra straight, narrowed posteriorly and apical margin truncated. Legs moderately long and dark yellowish brown, and claws slightly hooked. Length 7—14 mm. and breadth 2.5—4 mm.

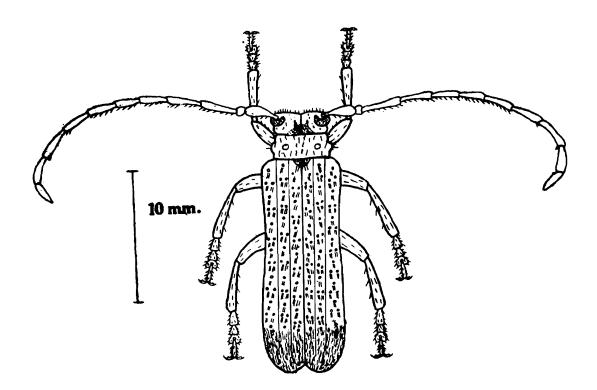
Material examined: 5 ex. Arunachal Pradesh: Kameng Division, 20. vi. 1966, A. N. T Joseph Coll. 1 ex., and 4 ex. also studied from other states of India.

Distribution in India: Aurivillius (1921-23)) listed this species from Burma, Malacca, Java and Borneo. In the present study this species is for the first time recorded from India: Arunachal Pradesh, West Bengal, Sikkim and Himachal Pradesh.

#### 16. Linda rubescens Hope

1831. Linda rubescens Hope, in Gray. Zool. Misc.: 28.

General appearance (Text-fig. 13) moderately large and parallel-sided. Dorsal surface yellowish and covered with fine yellowish erect pubescence. Head slightly transverse, yellowish with a median blackish patch, and covered with fine erect moderately long setae, eyes large and finely facetted. Antenna black, scape large and broadened towards apex.



Text-fig. 13. Linda rubescens Hope.

joints 3—1.1 subequal. Prothorax markedly short and transverse, pronotum broadest at middle and constricted in front and behind, and with two black spots at either side of middle line. Scutellum transversely semicircular and its apical margin slightly bilobed and covered with brownish long pubescence. Elytra yellowish, long, somewhat parallel-sided, each elytron with two slightly distinct ribs, puncturation irregular and deep, pubescence erect and moderately long. Legs black and rather short, and claws slightly hooked. Length 17—21 mm. and breadth 4—5 mm.

Material examined: 3 ex. Arunachal Pradesh: Subansiri Division, 14. v. 1966, A. N. T Joseph Coll. 1 ex. and 2 ex. also studied from West Bengal.

Distribution in India: Aurivillius (1921-23) listed this species from Nepal. In the present study this species is recorded for the first time from India: Arunachal Pradesh and West Bengal.

#### SUMMARY

The paper deals with sixteen species of Cerambycidae, their diagonastic characters, disribution in India and illustrations of dorsal view are given. All the sixteen species are being recorded for the first time from Arunachal Pradesh (NEFA).

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#### REFERENCES

- AURIVILLIUS, C. 1921-23. Cerambycidae: Lamiinae in Junk and Schenkling, Coleopterorum Catalogus. 23 (Pars 73—74.): 1—704. Berlin.
- BEESON, C. F. C. AND BHATIA, B. M. 1939. On the biology of the Cerambycidae (Coleopt). *Indian For. Rec.*, (N. S.) 5 (1): 1—235.
- BEESON, C. F. C. 1941. The Ecology and Control of the Forest Insects of India and Neighbouring Countries. Part 1.: 767 pp. Government of India.
- STEBBING, E. P. 1914. Indian Forest Insects of Economic Importance.

  Coleoptera. xvi + 648. London. Eyre and Spottiswoode.
- GAHAN, C. J. 1906. The Fauna of British India, including Ceylon and Burma. Coleoptera, Cerambycidae. 1: xviii + 329. (Taylor and Francis) London.
- Fowler, W. W. 1912. The Fauna of British India, including Ceylon and Burma. Coleoptera. General Introduction and Cicindelidae and Paus sidae: xx + 529. (Taylor and Francis) London.