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# THE SYSTEMATIC POSITION OF *LAEMOPHLOEUS SEMILAETANEUS* GROUVELLE (COLEOPTERA : CUCUJIDAE : LAEMOPHLOEINAE)

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ABSTRACT

A new genus *Heterojinus* for the species *Laemophloeus semilaetaneus* Grouvelle is established and its taxonomic position is discussed.

## INTRODUCTION

Grouvelle (1913) described the species *Laemophloeus semilaetaneus* from Rotung : Assam, Tibet Frontier (India) based on one example, which has been deposited in Zoological Survey of India, Calcutta. Since then nobody has dealt with this species. Authors have studied the type specimen and found that this species is unlike to any other known Cucujidae have tarsal joint 1 not shorter than joint 4. Arrow (1920) established the genus *Cucujinus* with description of a new species *Cucujinus micromma* from Africa. Grouvelle (1899 & 1906) described *Laemophloeus conguereli* and *Laemophloeus brevipennis* from Reunion and Madagascar respectively. Lefkovitch (1962) transferred these two *Laemophloeus* species to the genus *Cucujinus* and subdivided into two subgenera *Cucujinus* s.str. and *Paracucujinus*, *Laemophloeus semilaetaneus* Grouvelle has close resemblances with the subgenus *Cucujinus* s.str. specially in their general appearance, transverse head, apical margin of clypeus with five sinuations, lateral line in front of eyes and prothorax grooved, front coxal cavities closed behind, mesocoxal cavity open outwardly, sternal fitting between mesocoxae distinctly concave posteriorly, median impressed line on metasternum not extending upto apex, femora flattened and dilated.

The species *Laemophloeus semilaetaneus* Grouvelle cannot be assigned to any family of clavicorn beetles as at present defined by Crowson (1955). The following characters should be sufficient to establish its distinctness :

(1) The tarsal formula 5-5-5 excludes it from cerylonid group.

(2) Outwordly open mesocoxal cavities exclude it from Phalacridae, Propalticidae, Cryptophagidae, Languriidae and Erotylidae.

(3) Front trochantin not exposed and lack of outer keel or denticle on front tibiae exclude from Nitidulidae and Smicripidae.

(4) Elytra not distinctly truncated, absence of antennal club exclude it from Rhizophagidae.

(5) Normal front trochanter, absence of tarsal claws with large basal tooth and absence of femoral line on ventrite 1 exclude it from Byturidae and Biphyllidae.

(6) Simple tarsi and absence of bisetose empodium between tarsal claws separate it from Protocucujidae.

(7) Hind coxae widely separated, presence of fronto-clypeal suture and front coxae closed behind separate it from Lamingtoniidae.

(8) Front coxae round and trochantin unexposed separate it from Boganiidae, Cavognathidae, Phloeostichidae and Sphindidae.

(12) First tarsal joint not smallest and ventrite 1 distinctly smaller than ventrite 5 separate it from Cucujidae.

Though the species *Laemophloeus semilaetaneus* is clearly a Clavicornia, yet it is not to be referrable to any hitherto family of that group. No attempt has been made here to define a new family for this species, probably it could be included under the family Cucujidae and subfamily Laemophloeinae, if the definition of the family Cucujidae is modified.

Although it shows many similarities with genus *Cucujinus* s.str. as mentioned earlier but the chief differences of the genera *Cucujinus* Arrow and *Heterojinus* gen.nov. are as follows :

| | *Cucujinus* Arrow | *Heterojinus* gen. nov. (Fig. 1 A, B) |
|---|---|---|
| 1. | Tarsal joint 1 shorter than joint 4 and as broad as joint 2. | Tarsal joint 1 slightly longer than joint 4 and broader than joint 2. |
| 2. | Ventr te 1 twice as long as ventrite 2 and about as long as ventrite 5. | Ventrite 1 about as long as ventrite 2 and distinctly shorter than ventrite 5. |
| 3. | Transverse line at the base of pronotum absent. | Transverse line at the base of pronotum present and joined with lateral lines. |
| 4. | Front angle of pronotum acute and hind angle rounded. | Front and hind angle of pronotum rounded. |
| 5. | Labrum either semicircular or triangular in shape. | Labrum transverse and its apical margin truncated. |
| 6. | Elytral cells are obsolate. | Elytra with incomplete outer line of third cell. |

(9) Absence of distinct antennal club and lack of subocular grooves separate it from Helotidae.

(10) Gular sutures not confluent and meso-coxal cavities open outwardly exclude it from Passandridae.

(11) Tarsal joint 3 not lobed below, front coxal cavities narrowly closed behind and absence of antennal club exclude it from Silvanidae.

Genus **Heterojinus** gen.nov. (Fig. 1 A, B)

Type species *Laemophloeus semilaetaneus* Grouvelle (by monotypy)

General appearance (Fig. 1A) elongated, flattened, shiny, last segment of abdomen exposed.

*Head* transverse, apical margin of clypeus with five sinuations, fronto-clypeal suture distinct and irregularly curved, median line

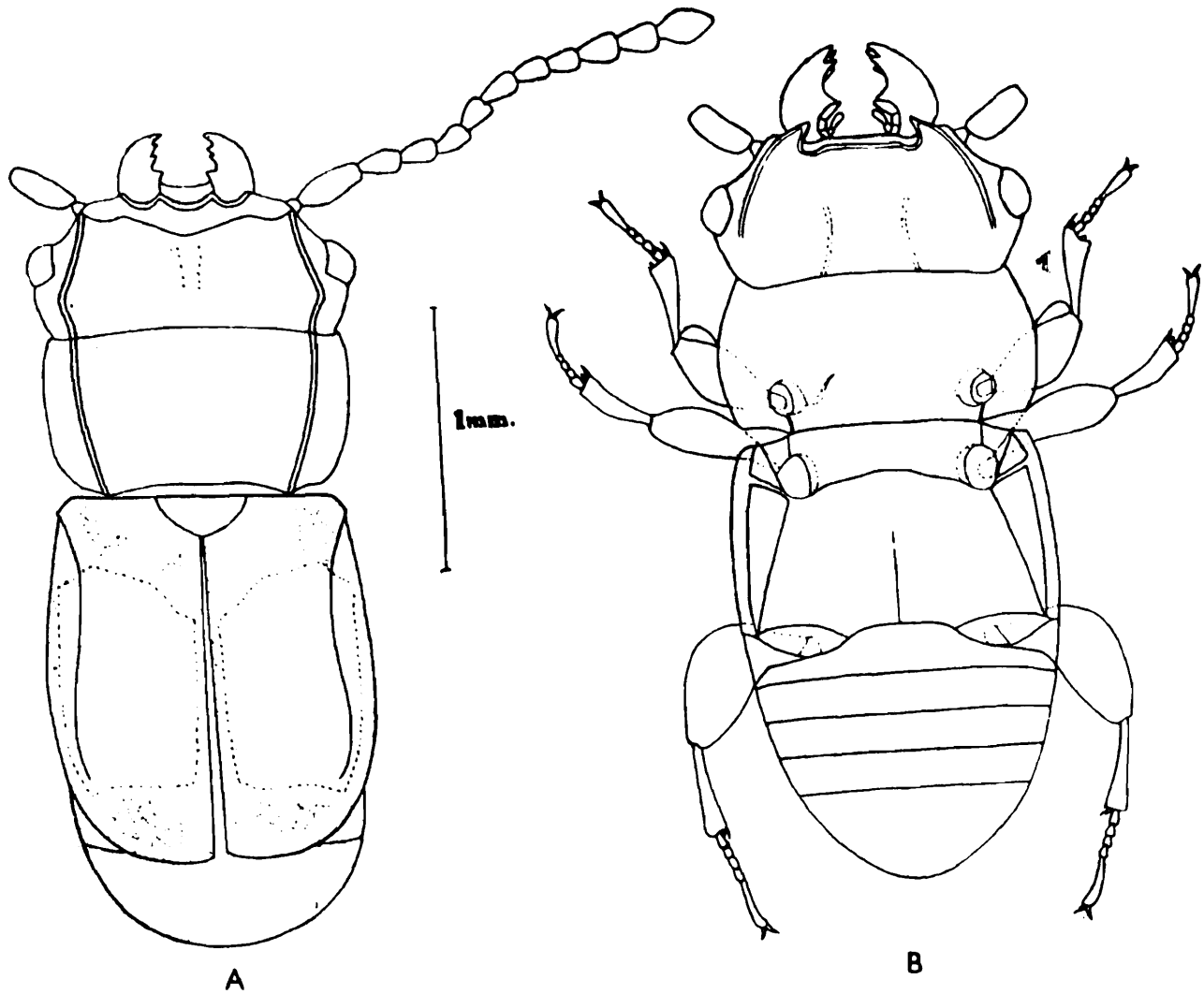


Fig. 1. *Heterojinus semilaetaneus* (Grouvelle), ♂ A. dorsal view ; B. ventral vie·

on vertex absent, lateral line in front of eyes grooved and diverging posteriorly. Eyes moderately large, a little advance from base and finely faceted. Ventral surface with gular suture widely separated, genae normal and with a blunt spine at apex and a grooved line at inner margin of eye present. Antennae (Fig. 1A) about half of body length, scape robust and more than two times longer than its width, pedicel slightly longer than segment 3, segments 3-8 subequal, segments 9-11 forming indistinguishable club. Mandible with four apical teeth. Maxillary palpi with segments 2 & 3 subequal and segment 4 distinctly longer than segments 2 & 3 together, labial palpi with segment 3 more than 1.5 times longer than segment 2. Labrum transverse, its apical margin truncate and fringed with hairs.

*Prothorax* (Fig.1, B) distinctly transverse, slightly narrowed in front and behind, lateral margins arched, lateral grooves united posteriorly with basal transverse line, front and hind angle of pronotum rounded. Front coxae spherical, widely separated, its cavities narrowly closed posteriorly, intercoxal process of prosternum slightly concave at apex.

*Meso-metathorax* (Fig. 1, B) meso-and metacoxae widely separated and in the same line of front coxae, mesocoxal cavity open out-

wardly. Metasternum transverse, median impressed line extending two thirds of its length, sternal fitting between mesocoxae in a curved line.

*Elytra* incomplete and exposing last segment of abdomen, slightly longer than its combined width, humeral angle rounded, apical angle subtruncate and each elytron with incomplete outer line of third cell.

*Legs* moderately long, trochanter short and simple, hind femora more flattened and delated tibia with two unequal spurs at apex, tarsal formula 5-5-5 in male (female unknown), tarsal segment 1 broader and longer than segment 4, segment 2 longer than segment 3, segment 5 about as long as segments 1-4 together, claws simple.

*Abdomen* (Fig. 1, B) slightly broader than long, intercoxal process of ventrite 1 broad and its apical margin almost straight, ventrite 1 slightly longer than ventrite 2, ventrites 2-4 subequal, ventrite 5 distinctly longer than ventrite 4.

*Habitat* : Under bark
*Distribution* India : Assam.

**Heterojinus semilaetaneus** (Grouvelle) (Fig. 1 A, B)

*Laemophloeus semilaetaneus* Grouvelle, 1913, *Rec. Ind. Mus.*, **8** : 108.

General appearance broadly elongated, flattened, shiny, glabrous, head and pronotum deep reddish black, elytra reddish black with large lactescence spot.

*Head* 2.7 times wider than long, apical margin of clypeus with five sinuations and boarderd internally, fronto-clypeal suture distinct, irregularly curved and two triangular, elongated short groove below the fronto-clypeal suture present, puncturation on vertex large, deep and moderately closely arranged. Eyes flat and finely faceted. Antennae reddish black. Prothorax two times wider than long, puncturation on disc small, finely and sparsely distributed. Scutellum subpentagonal, wider than long, rounded at apex, finely and sparsely punctured. Elytra 1.2 times longer than its combined width, finely and sparsely punctured. Puncturation on ventral surface of head large, deep and moderately closely arranged, each ventrite finely and moderately closely punctured.

*Measurements* : Total length 2.96 mm ; length of head 0.50 mm ; width of head across eyes 1.18 mm ; length of antenna 1.69 mm ; length and width of prothorax 0.58 mm, 1.13 mm ; length and width of elytra 1.62 mm, 1.23 mm.

*Material examined* : 1 ex. ♂ (Type) INDIA : ASSAM TIBET FRONTIER : Rotung, altitude 1400 ft, Abor Exp., Regd. No. 2519/19, 2.i.12, Kemp, under bark (deposited in Zoological Survey of India, Calcutta).

*Distribution* : India : Assam

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