

moderately large, setae projected posteriorly. On ventral side puncturation finer than on dorsal side.

Measurements : Total length 2.73 mm, width of head across eyes 0.55 mm, length of antenna 0.67 mm, width of prothorax across middle 0.64 mm, length of elytra 1.58 mm and width across middle 0.73 mm.

Material examined : 1 ex. EUROPE (Z.S.I. Reg. No. 746 )  
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Distribution : Cosmopolitan.

Genus Silvanolomus Reitter

Silvanolomus Reitter, 1912, Wien. ent. Ztg. 31 : 286;

Grouvelle, 1912, Annls Soc. ent. Fr. 81 : 385.

Silvanopsis Reitter (Sensu not Grouvelle), 1911, Fauna Germanica 3 : 44.

Type-species : Silvanolomus denticollis (Reitter)

Reitter 1911 erected this genus based on two species namely, Silvanus denticollis Reitter and Silvanus pullus Reitter and named it as 'Silvanopsis'. Since this name was preoccupied by a genus established by Grouvelle, he (1912) proposed the new name 'Silvanolomus' for this genus. Silvanolomus is a small genus and comprised of minute beetles ranging from 1.61 to 1.94 mm in length. The representatives of this genus can be recognised by its elongated and somewhat flat body;

prothorax transverse, with six lateral teeth and devoid of longitudinal carinae on pronotum; antennal club 3-jointed, elytra somewhat ovoid, and apical margin of intercoxal process of ventrite 1 almost straight. This genus seems to be more diversely represented in the tropical climate. Hetschko (1930) in Junk's "Coleopterorum Catalogus" listed three species namely, crenicollis (Grouvelle) (Australia), denticollis (Reitter) (Sri Lanka, Sumatra, Borneo) and pullus (Reitter) (West Africa, Morocco, Kilimanjaro). In the present study this genus is recorded from India with two species, of which one is new to science.

Definition :

General appearance (Fig.124) elongated, moderately flattened and yellowish to blackish brown.

Head (Fig.126) transverse, front margin of clypeus almost straight, eyes moderately large and coarsely faceted, temple inflattened beneath eye and short shelf-like, transverse impressed line on vertex behind eyes absent, tentorium with two long tentorial arms and a transverse bridge near middle. Antenna moderately long and slender, antennal insertions hidden under projection of frons, 11-jointed, scape broadly elongated, pedicel and joint 3 about as long as scape and narrower, joints 4-8 subequal and shorter, club loose and

3-jointed. Mandible (Fig.133) with 3 apical teeth, mola well-developed, a trace of dorsal mandibular cavity present near base. Maxilla (Fig. 134) with lacinia narrow, elongated and without apical spine, galea short and broad and its apex densely hairy; palpi with segments 2 and 3 almost equally long, apical segment longest and fusiform. Labium (Fig.135) with mentum triangular and transverse, palpi with apical segment longest and fusiform. Labrum (Fig. 136) with apical margin slightly concave.

Prothorax (Fig.127) slightly transverse, side margin with six large teeth, front coxae contiguous, coxal cavities almost round, cavities broadly closed behind externally as well as internally, prosternal process broad at apex and its apical margin straight, sterno-pleural suture extending to anterior tooth.

Meso-metathorax (Fig. 129): Mesocoxae contiguous, cavities broadly opened outwardly, mesosternal process notched near apex, sternal fitting between mesocoxae almost in a straight line, metasternum transverse, median impressed line on metasternum extends anteriorly near middle, hind coxae widely separated. Metendosternite simple and represented by two appophyses.

Wing and Elytra : Wing (Fig. 132) with trace of single anal vein, without anal cell and subcubital fleck, with

radial cell. Elytra somewhat ovoid, each elytron (Fig. 131) with 9 rows of stria punctures, without scutellary striole, alternate interstices with single and double rows of pubescence, epipleura narrow and complete upto apex.

Legs (Fig.128) moderately long, trochanters short and simple, femora swollen towards middle, tibiae not broadened at apex and with two apical spurs; tarsal formula 5-5-5 in both sexes, segment 1 elongated, segments 2 and 3 shorter and subequal, segment 3 strongly lobed below, segment 4 shortest, claws simple.

Abdomen (Fig. 130) elongated, ventrite 1 longest, intercoxal process broad at base and its apical margin almost straight, femoral lines closed, ventrites 2-5 subequal. Aedeagus (Fig. 138) with median lobe broadly elongated, median sturt elongated and its apex spatulate; parameres well-developed, slender elongated and with few short apical setae. Ovipositor (Fig. 137) with well-developed paraprocts, valvifers, coxites and styli attached on outer margin of apex of coxites.

Habitat : In India this genus is recorded from flower and crops.

Distribution : India, Sri Lanka, Indonesia, West Africa, Morocco, Kilimanjaro, Australia.

KEY TO THE SPECIES OF SILVANOLOMUS FROM INDIA

1. Aedeagus with parameres widest near middle, each paramere with two long apical and a group of short setae near middle (Fig. 138). ..... denticollis (Reitter)
- Aedeagus with parameres widest near apex, each paramere with only four apical setae (Fig. 139). .....  
..... meghalayensis sp.nov.

28. Silvanolomus denticollis (Reitter)

Silvanus denticollis Reitter, 1876, Col. Hefte 15 : 56;  
Grouvelle, 1908, Annls Soc. ent. Fr. 77 : 491. (Type-  
loc. : Sri Lanka).

Silvanopsis denticollis (Reitter) : Reitter, 1911, Fauna  
Germanica 3 : 44, nota.

Silvanolomus denticollis (Reitter) : Reitter, 1912,  
Wien. ent. Ztg. 31 : 286; Grouvelle, 1912, Annls  
Soc. ent. Fr. 81 : 331.

Reitter (1876) described this species from Sri Lanka and later Grouvelle (1908) recorded it from Sumatra and Borneo. This species is hitherto unrecorded from India and in the present study this species has been recorded in India from West Bengal, Bihar, Madhya Pradesh and Tamil Nadu. The present identification is based on one example sent to author by Dr. D.G.H. Halstead.

General appearance (Fig. 124) elongated, moderately depressed, prothorax with six large teeth on lateral side, blackish or yellowish brown and covered with short, semierect, golden pubescence.

Head : Exposed part of head wider than long, eyes large and length of eye about half as long as head, length of temple shorter than length of one eye facet and its outer apical angle slightly pointed, puncturation on vertex coarse and dense and that of towards anterior margin of clypeus slightly finer, setae short and projected towards middle line. Antenna moderately long and slender, scape moderately large, pedicel slightly shorter and narrower than scape, joint 3 about as long as pedicel and slightly narrower; joints 4-8 shorter than joint 3, subequal and elongated; joints 9-11 more or less transverse. Prothorax slightly wider than long, convex, slightly wider than head across eyes (1.12:1.00), anterior margin almost straight; lateral margin with six short, broad and slightly pointed teeth; puncturation on pronotum coarse, dense and similar to that of vertex of head; setae short and projected towards middle line. Scutellum moderately large, transverse and pubescent. Elytra less than two times as long as broad, lateral margins slightly wavy, rows of punctures moderately large and deep, interstices strongly pubescent and setae projected posteriorly. On ventral side puncturation finer than on dorsal side, median impressed line on metasternum extends anteriorly slightly beyond

middle. Aedeagus (Fig. 138) with parameres elongated and widest near middle, each paramere with two long apical setae and a group of shorter setae near middle, median sturt broad at apex and its apical margin slightly curved inwardly.

Measurements : Total length 1.61-1.94 mm, width of head across eyes 0.39-0.45 mm, length of antenna 0.60-0.64 mm, width of prothorax across middle 0.41-0.50 mm, length of elytra 1.02-1.26 mm and width across middle 0.58-0.72 mm.

Materials examined : 45 ex., INDIA : WEST BENGAL, Nadia dist., Badkulla, 21 ex., 6.iii.1977, T.K. Pal, dried flower of Dahlia ; BIHAR, Chaibasa, 17 ex., 29.xii.1970, T. Sengupta, Bajra (Crop); KARNATAKA, Coorg, Fraserpet, F.R.I. Sandal Insect Survey, 1 ex., 7.vi.31, plot 3; TAMIL NADU, Mahaballipuram, 6 ex., 25.iii.1977, T. Sengupta, Cashew flower.

Distribution : INDIA : West Bengal, Bihar, Karnataka, Tamil Nadu; SRI LANKA; INDONESIA (Sumatra and Borneo).

29. Silvanolomus meghalayensis sp.nov.

This species is closely related to S. denticollis (Reitter) but can be separated by its aedeagus with parameres widest near apex and each paramere with four apical setae, and puncturation on metasternum and ventrites slightly finer.

General appearance same as S. denticollis; elongated, moderately depressed, prothorax with six large teeth on lateral side, uniformly blackish brown and covered with short, semierect, golden pubescence.

Head : Exposed part of head wider than long, eyes large and length of eye about half as long as head, length of temple shorter than length of one eye facet and its outer apical angle slightly pointed, puncturation on vertex coarse and dense and that of towards anterior margin of clypeus slightly finer, setae short and projected towards middle line. Antenna moderately long and slender, scape moderately large, pedicel slightly shorter and narrower than scape, joint 3 about as long as pedicel and slightly narrower; joints 4-8 shorter than joint 3, subequal and slightly elongated; joints 9-11 more or less transverse. Prothorax slightly wider than long, convex, slightly wider than head across eyes (1.05:1.00), anterior margin almost straight; lateral margin with six short, broad and slightly pointed teeth; puncturation on pronotum coarse, dense and similar to that of vertex of head; setae short and projected towards middle line. Scutellum moderately large, transverse and pubescent. Elytra less than two times as long as broad, lateral margins slightly wavy, rows of punctures moderately large and deep, interstices strongly pubescent and setae projected posteriorly. On ventral side puncturation finer than on dorsal side, median impressed

line on metasternum extends anteriorly upto middle. Aedeagus (Fig. 139) with parameres elongated widest near apex and each paramere with four setae at apex; median sturt broad at apex and its apical margin curved outwardly.

Measurements of holotype : Total length 1.62 mm, width of head across eyes 0.39 mm, length of antenna 0.60 mm, width of prothorax across middle 0.41 mm, length of elytra 1.02 mm and width across middle 0.58 mm.

Holotype ♂, INDIA : MEGHALAYA, Sarengina, Dainadubi, 19.xi.1974, T. Sengupta, flower of Boga medulla. Aedeagus dissected and mounted on cover slip and pinned with the holotype; Paratypes 11 ex., data same as holotype (in Zoological Survey of India, Calcutta).

Distribution : INDIA : Meghalaya.

#### Genus Silvanopsis Grouvelle

Silvanopsis Grouvelle, 1892, Annls Soc. ent. Fr. 61 : 285.

Type-species : Silvanopsis simoni Grouvelle.

Silvanopsis is a small genus and comprised of minute beetles ranging from 2.61-3.08 mm in length. This genus was established by Grouvelle in 1892 based on two species namely, Silvanopsis simonis Grouvelle and Silvanopsis raffrayi Grouvelle