Genus *Acryptus* Sen Gupta

Type species *A. sikkimensis* Sen Gupta.

General appearance resembling a small elongate *Cryptophagus*, but more convex.

Head weakly transverse, with coarsely faceted minute eyes. Transverse line on vertex absent; clypeus moderately broad and its apical margin evenly rounded. Antenna with scape broader than pedicel but equal to it in length, segments 3 to 9 equal in length, segment 10 markedly wider than segment 9 and equal to the length of segments 7 to 9 together. Mouth parts more or less as in other Cryptophagini, except that the mentum is markedly transverse, about four times wider than its length, and the lacinia lack apical spines.

Prothorax equal in length and breadth, widest in the middle, all the four angles obtuse, side margins smooth, prebasal impressions on pronotum absent. Front coxal cavities rounded and internally open behind; prosternal process narrow, parallel sided, straight at apical margin.

Elytra glabrous, punctures very fine and sparse, internal columns in regular rows (only visible in slide preparation). Species apterous.

Meso-Metathorax: Meso and metasternum very short and broad; sternal fitting between the mesocoxae in a straight line as in *Telmatophilus*; mesoepisternal and metasternal pockets absent. Metasternum about three times as wide as long, its median impressed line obscured. Metendosternite strongly reduced, without lateral plates and short anterior tendons which are widely separated. Hind coxae fairly widely separated.

Legs are of moderate length, tarsal formula 5-5-5 in both sexes, tarsi simple, first four segments almost equal in length, segment 5 as long as the rest together. Tibiae narrow with two normal spurs. Trochanters short
and broad.

Abdomen: Ventrite 1 with its intercoxal process broad and truncated at apex; femoral lines absent. Aedeagus of Cryptophagini-type, the articulated parameres narrow and elongated and pointed at apex.
Acryptus sikkimensis Sen Gupta

General appearance: Upper surface reddish brown and glabrous, head and pronotum paler than that of elytra.

Head: Eyes minute with large facets, puncturation on vertex of head very fine and dense. Prothorax: Punctures on pronotum more sparse than that of on head. Scutellum minute and transverse. Elytra with its humeral angles slightly projecting forward, puncturation minute, sparse and irregular. Abdomen total length and breadth of ventrites more or less equal. Aedeagus not studied.

Measurements of Holotype: Total length 1.92 mm, length of antenna 0.5 mm, breadth of head across eyes 0.42 mm, breadth of pronotum across middle 0.64 mm, breadth of elytra at middle (maximum) 0.80 mm, breadth across front margin of elytra 0.58 mm.

Habitat unknown, collected by R.W.G. Kingston during Everest Expedition at the height of 4492 m in Deutang: Sikkim. Holotype and paratype in the collection of British Museum, (Natural History), London.
Subfamily ATOMARIINAE LeConte

In Junk's Coleopterus Catalogue, Schenkling (1923) included 4 genera namely, Caenoscelis Thomson, Sternodea Reitter, Atomaria Stephens and North American genus Tisactia Casey in the subfamily Atomariinae. Crowson (1980) transferred the genus Caenoscelis Thomson and Himascelis Sen Gupta to the subfamily Cryptophaginae and included the New Zealand genus Salltius Broun in Atomariinae which was previously attributed to Cryptophaginae. Only 3 genera namely Atomaria Stephens, Curelius Casey and Anathilopus Falcoz are known from India. The last mentioned genus has been treated here as a separate tribe Anathilopini and the former two genera represent the tribe Atomariini.

General appearance (Figs. 211, 219-241, 313-316) : Species nearly always small, length rarely more than 2 mm, body form usually rather short, tending to be more convex dorsally and less parallel-sided than Cryptophaginae.

Head usually with antennal insertions dorsal and closely situated, frontoclypeal suture well developed, occipital region rarely with transverse line, usually with paired stridulatory files, anterior gular region mostly without longitudinal grooves, tentorium with very slender corpotentorium, laminatentorial plates very broad and meeting for a more or less considerable distance in middle line. Antenna 11-segmented with scape usually markedly longer than pedicel and club 3 or 2-segmented. Mandible normal; maxilla with well developed galea and lacinia, palpi with segment 2 markedly larger than 3; labium normal with palpal segment 2 larger than apical one (Fig 213).

Prothorax (Fig. 215) usually markedly narrower than elytra across middle, side margins of pronotum never with definite serration and very rarely with
callosities near front angles; front coxal cavities internally and externally open behind; hypomera with more or less distinct angular projections behind them; tubular glandular openings present on sides of prosternum.

**Meso-Metathorax (Fig. 216)**: Middle coxal cavities well separated, rarely almost contiguous, sternal fitting between them with a single more or less distinct metasternal knob or in a straight line. Mesoepisternal pockets more or less developed, mesosternum usually with a pair of tubular glandular openings, metasternum nearly always with a pair of tubular glandular openings in its front half, hind coxae distinctly to moderately widely separated; metendosternite with anterior tendons usually almost contiguous.

**Elytra and Wing (Fig. 218)**: Elytra usually slightly rounded at sides, very rarely leaving tip of abdomen uncovered. Wing usually with 1 anal vein, rarely with 4 anal veins, radial cell and suscubital fleck absent.

**Legs**: Tarsi usually simple, sometimes lobed below, tarsal formula 5-5-5, rarely 4-4-4 in both sexes.

**Abdomen (Fig. 217)**: Ventrite 1 usually much longer than 2, intercoxal process more or less broad and rounded or truncated apically, femoral lines sometimes present. Tubular glandular openings usually present and paired on all 5 ventrites, rarely absent on 1st and 5th; paratergites often distinct. Aedeagus without articulated parameres or large sclerotisations of the internal sac. Ovipositor with coxites and styli on one side considerably separated from those of the other.

**Habitat**: Diverse; none known to live in nest of Hymenoptera.

**Distribution**: Worldwide, poorly represented in tropical areas.
KEY TO THE TRIBES OF ADULT INDIAN ATOMARIINAE

1. Tarsi 4-segmented, antennal segment-7 markedly wider than 8, prothorax with Cryptophagus-like callosities at front angles. Mesosternum without tubular glandular opening. Anathilopini trib. nov. Anathilopus Falcoz

1'. Tarsi 5-segmented, antennal segments 7 not markedly wider than 8, prothorax without callosities at front angles. Mesosternum with tubular glandular opening (Fig. 216). Atomariini
This tribe includes only one genus *Anathilopus* described by Falcoz (1921) for the species *Anathilopus teryi* from Algeria. The second species of this genus *Anathilopus falconi* n.sp. from Nainital, India is described below and a new tribe has been established here. So far, it includes only one genus.

*Anathilopus* is an unique genus among the known Cryptophagidae in having 4-segmented tarsi in both sexes; but all its other characters show clearly that it is a member of the family Cryptophagidae and the sub family Atomariinae. Within the Atomariinae, its affinities are more towards the Southern hemisphere genus *Salltius* Broun rather than to the Northern Atomariini. The *Cryptophagus* - like callosities at the front angles of the pronotum are shared with the genus *Cryptomaria* (undescribed, Sen Gupta, 1967); while the tarsi, apart from having one less segment and widely separated antennal insertions resemble those of *Metatomaria* (undescribed, Sen Gupta, 1967). In one respect *Anathilopus* differs from the genera *Salltius* and *Metatomaria* and exhibits a probably primitive condition preserved in *Atomariini* - the presence of lateral slit-like extensions of the front coxal cavities. *Anathilopini* may well represent survivors of a primitive Atomariinae line from the Northern Hemisphere, from which came the Southern Hemisphere colonists that gave rise to *Salltius* and *Metatomaria* like forms.
Figs. 207-210. Anathilopus sp.: 207, Head, ventral view; 208, Mandible; 209, Prothorax; 210, Mesometathorax.
Genus **Analhilopus** Falcoz


Type species: *Analhilopus teryi* Falcoz.

General appearance Cryptophaginae-like, small and elongate.

Head transverse, as broad as long, with short tempora, eyes moderately large and coarsely faceted, antennal insertions on top of head but more lateral, transverse line on vertex present, stridulatory files and longitudinal lines on anterior part of gular region absent, fronto-clypeal suture rather indistinct and slightly curved. Mouth parts Atomariinae-type. Antenna 11-segmented, scape moderately large and elongate, pedicel elongate and shorter than scape, segments 4 to 6 elongate, equal and shorter than segment 3, segment 7 larger than segments 6 and 8, rather small, segments 9 to 11 forming a 3-segmented club.

Prothorax (Fig. 209) slightly transverse, narrowed posteriorly, lateral margin finely serrated, front angles with a pair of small callosities, front coxae rounded, not projected, its cavities externally and internally open behind, glandular pit on prosternum absent, prosternal process narrow and its apex truncated.

Meso-metathorax: (Fig. 210) Mesocoxae widely separated, mesocoxal cavities closed outwardly, sternal fitting between mesocoxae with a single curved line, glandular pits on mesosternum and metasternum absent, metasternum strongly transverse, median impressed line short, metacoxae widely separated, metendosternite simple and its anterior tendon widely separated.

Wing and Elytra: Species apterous, elytra complete with epipleura extending upto middle, puncturation scattered.
Legs long, trochanters simple and long, femora swollen in middle, tibiae slightly broader at apex and without spurs, tarsi simple, tarsal formula 4-4-4, claws simple.

Abdomen: All the 5 ventrites freely articulated, devoid of any glandular pits, ventrite 1 without femoral lines and markedly long, ventrites 3 to 5 equal. Aedeagus without parameres.

Distribution: So far known the genus is recorded from Algeria and Nainital: India.
Anathilopus falconi n.sp.

General appearance (Fig. 211) small, elongate, somewhat parallel-sided, reddish brown, covered with fine pubescence.

Head: Dorsal side moderately densely punctured and pubescent, labrum exposed, eyes rather small with 5 to 6 moderate facets. Antenna reddish brown. Prothorax distinctly narrowed posteriorly, widest in front, callosity rather small but well developed, hind angle acute, punctuation moderately dense, pubescence fine, directed posteriorly and towards middle line. Scutellum small and transversely rounded. Elytra slightly parallel-sided, puncturation moderately sparse, pubescence recumbent, directed posteriorly and somewhat outwards. Aedeagus not studied.

Measurements: Total length 1.3 mm, length of antenna 0.36 mm, length of head 0.14 mm, breadth of head across eyes 0.26 mm, length of pronotum 0.30 mm, breadth of pronotum 0.4 mm, length of elytra 0.74 mm, breadth of elytra 0.54 mm.

Material examined: Holotype and 1 paratype (on slide), Nainital: Uttar Pradesh, 25.III.1971, T. Sen Gupta, on fungusy bark, 1219.2 m, in the Collection of Zoological Survey of India, Calcutta.

Distribution: INDIA: Uttar Pradesh.

Remarks: This species can be separated from Anathilopus teryi Falcoz by its small eyes, with moderate facets and prothorax more distinctly narrowed posteriorly.
Fig. 211. Dorsal view: *Anathilopus falconi*
Tribe ATOMARIINI Stephen

This tribe includes two genera viz., Atomaria Stephens and Curelius Casey.

**Head** without transverse line on vertex, antennal insertions on top of head, fronto-clypeal suture usually angularly pointed towards front in the middle line. Antennal club 3-segmented, scape markedly large. **Prothorax** with a pair of glandular pits present on prosternum. **Meso-Metathorax** : Meso-metasternum with a pair of glandular pits. Mesocoxae moderately widely separated with sternal fitting between them in a single broad knob. Metendosternite with anterior tendons almost contiguous or markedly widely separated. **Elytra and Wing** : Elytra completely covering the abdomen, wing with less than 3 anal veins. **Legs** : Tarsal formula 5-5-5 in both sexes, tarsal segments usually simple. **Abdomen** : Femoral lines on ventrite 1 absent, ventrites with a pair of glandular pits. Aedeagus without articulated parameres and ovipositor well developed.
KEY TO THE GENERA OF INDIAN ATOMARIINI

1. Species smaller, more convex and more globular, antenna of distinct type (Fig. 306) and slender, antennal segments elongated and never alternately long and short........................................ Curelius Casey

1' Species more oval and oblong, antenna less slender, antennal segments may be alternately long and short........................................ Atomaria Stephens
Genus **Atomaria** Stephens


Type species **Atomaria linearis** Stephens.

The genus **Atomaria** is one of the largest genera of the family Cryptophagidae. Schenkling (1923) listed 160 species from the world. Later, subsequent workers specially Johnson (1967, 1968, 1969, 1970a, 1970b, 1970c, 1971, 1971a, 1971b, 1973a, 1975a) added many more species to the genus from different parts of the world. Johnson (1971a, 1971b) is the first author to describe 9 new species from the Indian region, 7 from India and 2 from Nepal. In the published information the author has not come across any other work on Indian **Atomaria**. In the present study the author has dealt with a large collection of **Atomaria** and added 15 new species from different parts of the Indian region. The genus **Atomaria** can be easily recognised from its closest genus **Curelius** Casey by the general shape of the body being more oval and oblong than the representatives of the latter genus which has a distinct type of slender antennae with elongated segments that are not alternately long and short. There are some similarities in appearance of **Atomaria** with the representatives of **Caenoscelis** Thomson and **Himascelis** Sen Gupta. The differences between these genera have been dealt with elsewhere in this work and have also been mentioned in the key.

**General appearance** (Figs. 227-241) oblong-oval, convex, shiny, sparsely clothed with short and recumbent pubescence.

**Head** : (exposed part) somewhat triangular in appearance and front part more or less conical, vertex without transverse line, fronto clypeal suture angularly pointed in front. Antennal insertions on top of the head. Tempora absent, stridulatory files sometimes present. Eyes normal, usually
finely faceted and not projected on ventral side, gular sutures widely separated and longitudinal lines on the anterior part of gular region absent. Antenna with scape usually markedly long, segment 3 to 8 may be short and somewhat moniliform or narrow-elongated and often alternately long and short, club 3-segmented. Mandible (Fig. 214) normal with well developed mola; maxilla and labium normal but maxillary palpi with segment 2 distinctly larger than segment 3, similarly segment 2 of the labial palpi markedly larger than apical segment.

Prothorax (Fig. 215) usually as broad as long, usually broadest across middle and narrowed in front and behind. Lateral margin smooth, more or less uniformly curved, narrowed in front and behind, without median tooth. Front angle not projected and devoid of callosity, prebasal impression on pronotum obscure. Front coxal cavity internally and externally open behind and prosternal process normal.

Meso-metathorax (Fig. 216) Mesocoxae somewhat closely situated, sternal fitting between them with a broad knob. Mesocoxal cavities closed outwardly by sternum and mesoeipimera not extending to mesocoxal cavities. Mesoeipimeral and metasternal pit usually present. Metacoxae moderately widely separated, metendosternite well developed and anterior tendon almost contiguous.

Elytra and Wing: Elytra usually oblong-oval, epipleura distinct upto the middle, puncturation usually indistinct and confused, pubescence fine and recumbent, apical gape short but distinct. Wing more poorly developed than Cryptophagus in having less anal veins and without radial cell and r-m cross vein.

Legs normal with narrow, elongated, simple trochanter, femora normally slightly swollen in the middle, tibia narrow and poorly broadened at apex, tarsi usually simple, sometimes segment 3 distinctly lobed behind with
segment 4 minute. Tarsal formula 5-5-5 in both sexes. 

**Abdomen** usually short almost as long as broad, ventrite 1 longer than ventrite 2 without femoral lines and its intercoxal process usually broadly rounded at its apex. Lateral margin of ventrite 1 to 5 usually with a pair of glandular pores. Ovipositor normal and well developed with paraprocts, valvifers, coxites and styli. Aedeagus usually short and broad and without parameres. 

**Habitat**: Members of this genus are found in a wide range of habitats. These include decaying vegetation, grass heap, hay, moss, flood refuge, fungi, carrion, dump of herbivorous animal, birds nest, loose bark of dead tree, timber stack etc. As far as known, representatives of this genus primarily feed on fungal hyphae and conidia. In India they have mostly been collected from damp moss and liverwort on rock, shifted moss, on grass, dead grass, flower, leaf garbage, garbage of pine leaves, dense vegetation in tree shade, hillside bush, soil trap and trodden mud. 

**Distribution**: The genus *Atomaria* is represented in all the zoogeographical regions of the world. In India, they have mostly been recorded from Northern India especially from temperate zones in the foothills of the Himalayas and from South India: Tamil Nadu.
Figs. 212-218. Atomaria sp.: 212, Maxillary palpi; 213, Labial palpi; 214, Mandible; 215, Prothorax; 216, Mesometathorax; 217, Abdomen; 218, Wing.
1. *Atomaria tristis* Johnson


**General appearance** (Fig. 219) rather short, broad, convex and more narrowed towards front, uniformly dark reddish brown, covered with short and recumbent pubescence.

**Head** transverse, with moderately large, normally projected and finely faceted eyes, punctuation on vertex of head dense, pubescence directed towards middle line. Apical end of clypeus obtusely angled, antennal insertions more closely situated. Antenna somewhat slender, rather densely pubescent, scape large, markedly longer than pedicel, pedicel and segment 3 equal in length but the latter narrower, segments 3 to 8 distinctly alternately long and short, club and its segments elongated, segment 9 and 10 almost equal, apical segment slightly longer and elongated apically.

**Prothorax** strongly convex, broadest across middle, slightly narrowed posteriorly, more strongly towards front, front margin distinctly sinuate on either side to accommodate eyes in resting condition, front angle obtusely acute, hind angle obtusely right angled, prebasal impression rather narrow and uniform throughout base and extending upto lateral margin, punctuation distinct, rather dense, space between punctures slightly less than the width of each puncture, pubescence directed anteriorly and towards middle line. **Scutellum** (Fig. 290) transversely semi-circular and pubescent. **Elytra** (Fig. 296) broadly elongate, convex, anterior one-third somewhat parallel-sided and broadest in posterior two-thirds, humeral angle prominent, lateral margin finely bordered, punctuation slightly finer and sparser than that of on pronotum, space between punctures about the width of each puncture, pubescence short and directed posteriorly. **Aedeagus** : Apical end of tegmen distinctly
bilobed with 5 pairs of long setae giving the appearance of parameres, apical end of median lobe triangularly pointed and basal half triangular and rather short, endophallic orifice of characteristic shape (Fig. 258).

**Measurements** : Total length 1.64 mm, length of antenna 0.68 mm, length of head 0.10 mm, breadth of head 0.38 mm, length of pronotum 0.42 mm, breadth of pronotum 0.62 mm, length of elytra 1.12 mm, breadth of elytra 0.8 mm.

**Material examined** : 1 paratype, Kadrala, Bashahr, 2769.2 m, 1953, Coll. H.G. Champion in British Museum (Natural History). Material borrowed from British Museum (Natural History), London and examined.

**Distribution** : INDIA : Uttar Pradesh, Punjab.

**Remarks** : General appearance (Fig. 219) rather characteristic, elytra broadest across posterior two-thirds and narrowed in front, prebasal impression of pronotum extends upto lateral margin (Fig. 282), front margin of prothorax near eyes distinctly sinuate, prothorax rather strongly transverse, aedeagus characteristic (Fig. 258) with apical end of tegmen distinctly bilobed with 5 pairs of long setae giving the appearance of parameres.

2. **Atomaria gracilicornis** Reitter


**General appearance** (Fig. 220) elongated, somewhat parallel-sided, more narrowed towards front, covered with fine, small and uniform pubescence.

**Head** transverse with moderately large, finely faceted eyes, clypeus
obtusely angled but sharply pointed, puncturation on vertex small, fine and comparatively sparse, pubescence directed anteriorly and towards middle line. Apical end of clypeus obtusely angled but rather sharply pointed, antennal insertions close. Antenna long but not slender, scape large, broadly elongate and almost as long as segment 2 and 3 together, pedicel distinctly smaller and narrower than scape and almost equal in length to segment 3, segment 3 narrower than pedicel and almost equal to segment 5, segments 3 to 8 somewhat alternately long and short, segment 7 distinctly shorter than 5, club loose, segments almost parallel-sided and progressively longer. Prothorax slightly transverse and feebly narrowed anteriorly, front angle acute, hind angle obtusely rounded, prebasal impression not extending up to lateral margin, each side near hind angle of pronotum slightly scooped, puncturation on pronotum larger and denser than that of on head, space between punctures about one and a half times the width of each puncture, pubescence directed towards middle line, that of near hind angle directed outwardly. Scutellum dark brown, strongly transverse and pubescent. Elytra markedly long and about two times longer than the head and prothorax, broadest at posterior one third and anterior two-thirds almost parallel-sided, puncturation uniform, similar to that of on pronotum but slightly sparser, space between punctures about one and a half times the width of each puncture, pubescence fine, recumbent, uniformly directed posteriorly. Apical gape narrow but long. Aedeagus similar to A. prolixa (Fig. 256), small and simple but shape of apical half of tegmen different and as figured (Fig. 255), its lateral margin slightly sinuate at basal one-third and apical margin fringed with moderately long, uniformly arranged setae. Unlike A. prolixa apical margin of median lobe somewhat bilobed in appearance.

Measurements: Total length 1.72 mm, length of antenna 0.75 mm, length
of head 0.14 mm, breadth of head 0.38 mm, length of pronotum 0.4 mm, 
breadth of pronotum 0.52 mm, length of elytra 1.18 mm, breadth of elytra 
0.74 mm.

**Material examined**: 1 ex. ♀, Dudhatoli, Kumaon: Uttar Pradesh, 2461.5-
3076.9 m, Coll. II.G. Champion, in British Museum (Natural History).
Material borrowed from British Museum (Natural History), London and 
examined.

**Distribution**: INDIA: Uttar Pradesh and with a wider distribution in 
major parts of the Palaearctic region.

**Remarks**: This is a very distinct species, shape being elongated and 
parallel-sided, with head and prothorax blackish brown, elytra, antennae 
and legs reddish brown, small and simple aedeagus with apical half of 
tegmen having a characteristic shape (Fig. 255), and apical margin of 
median lobe somewhat bilobed in appearance.

3. **Atomaria prolixa** Erichson

Thomson, C.G. 1863 *Skand. Col.* 5 : 271;
Johnson, C. 1967 *Entomologist*, 100 : 41, 44;

**General appearance** (Fig. 221) narrow, elongated and somewhat parallel-
sided, covered with fine short recumbent pubescence.

**Head** transverse with moderately large, rather finely faceted eyes, 
punctuation sparse, pubescence directed anteriorly and towards middle 
line, clypeus obtusely angled but sharp, antennal insertions moderately
close, about half the length of scape, antenna fairly long, moderately slender, scape large, pedicel shorter and narrower than scape, segment 3 almost equal in length to pedicel but slightly narrower, segments 3 to 8 alternately long and short, club narrow, segments elongate and almost equal in length. **Prothorax** transverse, slightly narrowed in front, moderately convex, each side near hind angle of pronotum slightly scooped (Fig. 275), front margin almost straight, front angle almost forming obtuse right angle, lateral margin evenly rounded, hind angle obtusely rounded, basal and lateral margins slightly bordered, prebasal impression narrow, almost extending up to lateral margin, puncturation sparse, moderately large and space between punctures about the width of each puncture, pubescence directed towards middle line, that of near hind angle directed outwards. **Scutellum** distinctly transverse (Fig. 286), semi-circular and punctate. **Elytra** rather markedly elongate, somewhat parallel-sided, slightly broader across posterior two-third, humeral angle somewhat prominent, puncturation more or less similar to that of on pronotum, pubescence uniform, short, recumbent, directed posteriorly and slightly outwards. Apical gape narrow and elongate. **Aedeagus** (Fig. 256) rather simple and more or less distinct type, the lateral margin of apical half of median lobe and tegmen almost parallel-sided, apical margin of tegmen narrowed at apex and forming a weakly rounded angle, each of its sides fringed with 3 moderately long setae, whereas apical margin of median lobe uniformly rounded.

**Measurements**: Total length 1.35 mm, length of antenna 0.88 mm, length of head 0.17 mm, breadth of head 0.42 mm, length of pronotum 0.46 mm, breadth of pronotum 0.56 mm, length of elytra 1.26 mm, breadth of elytra 0.72 mm.

**Material examined**: 1 ex. *D* Dudhatoli, Kumaon: Uttar Pradesh, 2461.5-
Material borrowed from British Museum (Natural History), London, and studied.

**Distribution** INDIA: Uttar Pradesh and widely distributed in the major part of the Palaearctic region.

**Remarks**: This species (Fig. 221) is near to *A. gracilicornis* (Fig. 220), unlike latter head and thorax not black, species uniformly reddish brown and antennal segments 6 to 8 markedly long and short, lateral margins of apical half of median lobe and tegmen of aedeagus almost parallel-sided (Fig. 256), apical margin of tegmen narrowed at apex and forming a weakly rounded angle, each of its sides fringed with 3 moderately long setae and apical margin of median lobe uniformly rounded.

4. **Atomaria torrida** Johnson


**General appearance** (Fig. 222) moderately convex, sharply depressed between prothorax and elytra, oval, reddish brown, more or less distinctly punctured, covered with semi-recumbent pubescence.

**Head** transverse with rather small finely faceted eyes, punctuation on vertex of head distinct and moderately dense, pubescence directed towards middle line, apex of clypeus rather sharp but slightly obtuse angled, antennal insertions closely situated, less than half the length of scape. Antenna long, scape large, broadly elongate, pedicel broadly elongate and shorter than scape and longer than segment 3, segments 3 to 8 distinctly alternately long and short, segments 3, 5 and 7 subequal and elongate, segments 4, 6 and 8 equal and small, rather moniliform, club somewhat

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loose and almost parallel-sided, segments 9, 10 and 11 progressively elongate. **Prothorax** transverse, broadest in middle, very slightly narrowed posteriorly and more strongly towards front, uniformly and distinctly convex, basal half of pronotum largerly but feebly scooped laterally, front and hind angles obtuse, front margin almost straight, hind margin curved, lateral margin of pronotum finely margined and bordered, prebasal impression distinct and almost extended upto lateral margin, punctuation uniform, distinct, space between punctures slightly less than the width of each puncture, pubescence small and directed towards middle line. **Scutellum** semi-circular (Fig. 285) and impunctate. **Elytra** strongly convex, oval, humeral angle slightly elevated and obtusely rounded, punctuation coarser and sparser than that of pronotum, pubescence uniform, moderately long, directed posteriorly and slightly outwards. Apical gape long, narrow and distinguishable. **Aedeagus** not studied.

**Measurements** : Total length 1.60 mm, length of antenna 0.8 mm, length of head 0.14 mm, breadth of head 0.4 mm, length of pronotum 0.46 mm, breadth of pronotum 0.64 mm, length of elytra 1.0 mm, breadth of elytra 0.82 mm.


**Distribution** : INDIA : West Bengal; NEPAL : East.

**Remarks** : This species can be distinguished by a large pair of scoops near the hind angle of prothorax, its eyes being rather small and finely faceted, sharply depressed between prothorax and elytra, scutellum small and transverse, lateral margin of elytra distinctly rounded.
Figs. 219-222. Dorsal view: 219, Atomaria tristis Johnson;
220, A. gracilicornis Reitter; 221, A. prolixa Erichson;
222, A. torrida Johnson.
5. *Atomaria incertula* Johnson


**General appearance** (Fig. 223), reddish brown, short, broad, oval, moderately convex and covered with fine, recumbent, moderately dense pubescence.

**Head** transverse, with large, moderately coarsely faceted eyes which are less projected than *A. lewisi*, puncturation on vertex of head uniform and moderately sparse, pubescence directed anteriorly and towards middle line, apex of clypeus broadly pointed, antennal insertions distant but less than the length of scape. Antenna (Fig. 266) slightly slender and more elongate than *A. lewisi*, scape moderately large and elongate, pedicel unlike *A. lewisi*, almost equal in length to scape but narrower, segment 3 shorter and narrower than pedicel, segments 4 to 8 short and segments 3 to 8 slightly alternately long and short, antennal club narrow, elongate, segments 10 and 11 not transverse and almost equal in length. 

**Prothorax** transverse, broadest across middle and more or less uniformly narrowed in front and behind, convex, front angle slightly obtuse, hind angle more or less obtusely rounded, basal and lateral margins bordered and dark, prebasal impression distinct, rather short, and not extended upto lateral margin, puncturation similar to that of on head, uniform, moderately dense, space between punctures almost the width of each puncture, pubescence directed anteriorly and towards middle line. 

**Scutellum** transversely semi-circular and glabrous. 

**Elytra** (Fig. 303) slightly longer than its breadth, broadest at middle and slightly narrowed in front and behind, humeral angle not very prominent, puncturation uniform and similar to that of on pronotum, pubescence directed posteriorly. Apical gape short and prominent.

**Aedeagus** : (Fig. 243) Apical margin of tegmen
uniformly rounded, apex of median lobe bluntly projected to form a finger-like projection, which is not knobbed as in *A. lewisi* (Fig. 242) and *A. raghubira* (Fig. 244), lateral margins of apical half of median lobe almost straight with a slight broadening at apical one-third, basal half of median lobe narrowed posteriorly and its basal margin distinctly curved.

**Measurements**: Total length 2.28 mm, length of antenna 0.64 mm, length of head 0.16 mm, breadth of head 0.42 mm, length of pronotum 0.46 mm, breadth of pronotum 0.62 mm, length of elytra 1.6 mm, breadth of elytra 0.78 mm.

**Material examined**: 1 paratype ♂, Dhelu, Mandi : Himachal Pradesh, 1384.6 m 1953, Coll. H.G. Champion. In this study 1 ex. has also been recorded from Darjeeling : West Bengal, 19.IV.71, Coll. T. Sen Gupta, in the Collection of Zoological Survey of India, Calcutta.

**Distribution**: INDIA : West Bengal, Uttar Pradesh, Himachal Pradesh, WEST PAKISTAN; NEPAL.

**Remarks**: This species has some similarities with *A. lewisi* (Fig. 233) having somewhat similar type of appearance: short, broad and oval with antennal segments 4 to 8 short and very slightly alternately small and large but it differs from the latter in having antennal club more elongated (Figs. 266, 270), segments 9 and 10 less transverse, apical gape short, prebasal impression not divided in the middle and not extended upto lateral margin, apex of median lobe of aedeagus bluntly projected (Fig. 243) but not knobbed as in *A. lewisi* (Fig. 242), basal half of median lobe narrowed posteriorly and its basal margin distinctly curved.
6. **Atomaria sawpna** n.sp.

**General appearance** (Fig. 224) elliptical, narrowed in front and behind, blackish brown except posterior one-third of elytra, covered with short and uniform pubescence.

**Head** triangular with small, moderately finely faceted eyes, puncturation on vertex of head small, uniform and rather sparse, pubescence short, directed anteriorly and towards middle line, apical end of clypeus obtuse angled but sharp, antennal insertions rather close. Antenna (Fig. 263) slender, scape large and elongated, pedicel slightly smaller than scape and almost equal to segment 3 in length, the latter narrower, segments 3 to 8 distinctly long and short, club rather compact, segments almost as long as broad, apical segment elongated. **Prothorax** (Fig. 281) slightly transverse, widest in middle, distinctly narrowed in front, slightly behind, front angle acutely obtuse, hind angle obtusely rounded, prebasal impression wide and almost extended upto lateral margin, puncturation larger and denser than that of on head, space between punctures less than the width of each puncture, pubescence short, directed anteriorly and towards middle line. **Scutellum** strongly transverse and punctate. **Elytra** broadest almost in middle, somewhat narrowed in front and uniformly curved behind, puncturation sparse, smaller than that of on pronotum and larger than that of on head, space between punctures about twice the width of each puncture, pubescence short and directed posteriorly. Apical gape moderately long and narrow. **Leg** with tarsal segment 3 of front leg markedly large. Aedeagus not studied.

**Measurements of Holotype**: Total length 1.46 mm, length of antenna 0.64 mm, length of head 0.1 mm, breadth of head 0.32 mm, length of pronotum 0.4 mm, breadth of pronotum 0.52 mm, length of elytra 0.96 mm, breadth

Distribution: INDIA: West Bengal.

Remarks: This is a distinct species and can be easily recognised from all other species of the genus by its blackish brown colouration with posterior one-third of elytra paler, antennae slender with segments of club narrow and somewhat elongate type, tarsal segment 3 of front leg markedly large.

7. Atomaria shyama n.sp.

General appearance (Fig. 226) blackish brown, short, broad, oval, convex, depressed between pronotum and elytra, covered with fine, recumbent, moderately dense pubescence.

Head transverse with slightly projected and finely faceted eyes, punctuation on vertex of head uniform and moderately sparse, pubescence directed anteriorly and towards middle line. Apical end of clypeus broadly pointed at apex, antennal insertions rather close, less than the length of scape. Antenna rather slender, scape large and elongate, pedicel distinctly shorter and narrower than scape, segment 3 slightly shorter and narrower than pedicel, segments 3 to 8 distinctly alternately long and short, club segments rather loose, distinct, narrow and elongate, segment 9 rather conical and less transverse than segment 10, the latter slightly larger, apical segment transversely elongated. Prothorax (Fig. 274) transverse, convex, broadest almost in middle, more narrowed in front than behind, basal and lateral
margins dark and bordered, front angle obtusely acute, hind angle obtusely right angled, prebasal impression distinct, rather short, not extended upto lateral margin. Puncturation distinct, larger and denser than that of on head and elytra, space between punctures about half the width of each puncture, pubescence directed anteriorly and towards middle line. **Scutellum** rather small, pubescent and punctate. **Elytra** (Fig. 295) slightly longer than broad, broadest in anterior one-third and slightly narrowed in front and behind, humeral angle prominent, puncturation small, rather dense, space between punctures about twice the width of each puncture, pubescence fine and directed posteriorly. Apical gape distinct, short and prominent. **Aedeagus** (Fig. 259) similar to **A. tristis** (Fig. 258) but with 5 pairs of long and 2 pairs of short setae present on apical margin of tegmen, apex of median lobe more sharply pointed and basal half of median lobe elongated and not triangular, endophallic orifice characteristic and more transverse (Fig. 259).

**Measurements** : Total length 1.52 mm, length of antenna 0.82 mm, length of head 0.12 mm, breadth of head 0.4 mm, length of pronotum 0.4 mm, breadth of pronotum 0.6 mm, length of elytra 1.0 mm, breadth of elytra 0.84 mm.

**Material examined** : 1 ex. Holotype ♂, Darjeeling, 29.IV.76, Ghombhajang, alt. 2117 m, sweeping near hillside bush, Coll. A.R. Bhowmik, in the Collection of Zoological Survey of India, Calcutta.

**Distribution** : INDIA : West Bengal.

**Remarks** : This species closely resembles **A. tristis** Johnson (Fig. 219), but can be separated from it by the front margin of its prothorax not being sinuate near eyes, prebasal impression not extended upto lateral margin, scutellum smaller and more transverse, elytra widest in the anterior half, tarsi lobed, aedeagus (Fig. 259) with 5 pairs of long and 2 pairs of short setae on apical margin of tegmen, apex of median lobe more sharply
pointed and basal half of median lobe elongated and not triangular.

8. **Atomaria kala** n.sp.

**General appearance** (Fig. 225) rather small, broadly oval, convex, uniformly light blackish brown, sharply depressed between pronotum and elytra, covered with short and semi-recumbent pubescence, punctuation rather small and sparse.

**Head** transversely triangular with moderately large, slightly projected and finely faceted eyes, punctuation on vertex of head dense and similar to that of pronotum, pubescence directed towards middle line. Apical end of clypeus obtuse angled, antennal insertions close, less than length of scape. Antenna elongated, slender and pubescent, scape large and markedly longer than pedicel, pedicel and segment 3 equal in length but the latter narrower, segments 3 to 8 distinctly alternately long and short, club loose and its segments elongated, segments 9 and 10 almost equal, rather transversely conical, segment 11 elongated. **Prothorax** (Fig. 279) strongly convex, broadest in front of middle, slightly narrowed posteriorly and more strongly towards front, lateral margin dark and uniformly rounded, front margin distinctly sinuate to accommodate eyes in resting condition, front angle acute, hind angle obtusely right angled, prebasal impression short, not extending up to lateral margin, punctuation distinct, small, rather dense, space between punctures almost the width of each puncture, pubescence directed towards middle line. **Scutellum** large, transversely semi-circular, glabrous and punctated. **Elytra** broadly elongate, convex, longer than broad, broadest at middle, humeral angle raised and prominent, lateral margin finely bordered, punctuation slightly finer and sparser than that of
General appearance (Fig. 227) small, elliptical, elongate, head and pronotum light reddish brown, elytra lighter, covered with short, semi-erect pubescence. **Aedeagus** not studied.

**Measurements**: Total length 1.63 mm, length of antenna 0.86 mm, length of head 0.13 mm, breadth of head 0.4 mm, length of pronotum 0.4 mm, breadth of pronotum 0.61 mm, length of elytra 1.1 mm, breadth of elytra 0.82 mm.


**Distribution**: INDIA: Sikkim.

**Remarks**: This is a distinct species, having characteristic shape of prothorax with curved front margin, uniformly rounded lateral margin, slender antennae, semi-circular scutellum, form small and blackish brown.

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9. **Atomaria asha** n.sp.

**General appearance** (Fig. 227) small, elliptical, elongate, head and pronotum light reddish brown, elytra lighter, covered with short, semi-erect pubescence.

**Head** triangular with large, moderately projected eyes with moderate facets. Apex of clypeus short, its apical angle acutely obtuse, antennal insertions close, almost the length of scape, punctuation small but distinct. Antenna (Fig. 269) slender, scape broadly elongate, pedicel almost half the size of scape, segment 3 smaller and distinctly narrower than pedicel, segment 5 almost equal to segment 3, segments 4 to 8 except 5 subequal, segment 9 less transverse and smaller than segment 10, apical segment elongated.
Pronotum (Fig. 278) convex, transverse, broadest in front of middle, more narrowed in front than behind, lateral margin not rounded, front angle obtuse, hind angle obtusely rounded, prebasal impression narrow and not extended up to lateral margin, puncturation similar to that of on vertex, space between punctures slightly more than the width of each puncture, pubescence directed towards middle line. Scutellum small, transversely rounded and punctate. Elytra slightly convex, lateral margin curved, widest in anterior one-third, narrowed behind, puncturation sparser than that of on pronotum, space between punctures about the width of each puncture, pubescence short, semi-erect, directed posteriorly and slightly outwards. Apical gape long, narrow and distinct. Ventral surface more blackish brown.

Aedeagus (Fig. 246) : Apical margin of tegmen uniformly rounded unlike the species A. pudica (Fig. 249) and A. basanta (Fig. 248), but similar to the two species in having the apical margin of median lobe truncated; like A. pudica but unlike A. basanta median lobe narrowed apically, basal margin of median lobe curved like A. incertula (Fig. 243) and A. lewisi (Fig. 242).

Measurements : Total length 1.42 mm, length of antenna 0.56 mm, length of head 0.16 mm, breadth of head 0.36 mm, length of pronotum 0.36 mm, breadth of pronotum 0.52 mm, length of elytra 0.9 mm, breadth of elytra 0.66 mm.

Material examined : 5 exs., Holotype ♂ and 4 paratypes, Madumalai : Tamil Nadu, 1076.9 m, 7.XII.71, Reserve forest, Coll. T. Sen Gupta, in the Collection of Zoological Survey of India.

Distribution : INDIA : Tamil Nadu.

Remarks : This species is similar to Atomaria pudica Johnson (Fig. 230) but can be distinguished from it by its antenna (Figs. 264, 269) being shorter and stouter, segment 10 being more transverse, pedicel markedly smaller.
than scape, lateral margin of pronotum not uniformly rounded, apical margin of tegmen of aedeagus uniformly rounded and basal margin of median lobe curved.

10. *Atomaria pudica* Johnson


**General appearance** (Fig. 230) small, oval, covered with small recumbent pubescence, puncturation distinct and moderately sparse.

**Head** transverse with large, somewhat projected and moderately coarsely faceted eyes, puncturation distinct and sparser than *A. klapperichi*, pubescence directed towards middle line. Clypeus short and its apical angle broadly obtuse, antennal insertions apart. Antenna (Fig. 264) similar to *klapperichi*. **Pronotum** (Fig. 277) transverse, broadest at middle, narrowed in front and behind, lateral margin more rounded than *klapperichi*, front angle obtuse, hind angle unlike *klapperichi* broadly rounded, basal margin bordered, border of lateral margin extends upto middle when seen from dorsal side, prebasal impression almost extending upto lateral margin, puncturation sparser than *klapperichi* and somewhat similar to that of on vertex, space between punctures about the width of each puncture, pubescence directed towards middle line. **Scutellum** small, transversely semi-circular. **Elytra** (Fig. 292) oval, broadest at middle, uniformly narrowed in front and behind, puncturation somewhat similar to that of on pronotum, space between punctures less than the width of each puncture, pubescence short, recumbent and directed posteriorly. Apical gape similar to *klapperichi*. **Aedeagus** (Fig. 249): Apical margin of tegmen and median lobe strongly truncated, apex of tegmen with 2 pairs of very short setae, lateral margins
of tegmen and median lobe narrowed towards apex, basal half of median lobe almost equal to the apical half, basal margin of median lobe feebly curved.

**Measurements**: Total length 1.46 mm, length of antenna 0.64 mm, length of head 0.16 mm, breadth of head 0.36 mm, length of pronotum 0.36 mm, breadth of pronotum 0.55 mm, length of elytra 0.94 mm, breadth of elytra 0.7 mm.

**Material examined**: 1 ex., paratype ♂, Sarda : Bengal, 1953, Coll. H.G. Champion, borrowed from British Museum (Natural History), London and examined. An additional specimen from Meghalaya has been studied; 1 ex. Garo hills, Songsak : Meghalaya, 20.XI.74, lump of dead cut grass beside soccer ground, Coll. T. Sen Gupta.

**Distribution**: INDIA : Meghalaya, Uttar Pradesh, West Bengal.

**Remarks**: This species has a close resemblance with *A. klapperichi* but it is smaller, more rounded, shape of the elytra more oval, apical margin of tegmen and median lobe of aedeagus strongly truncated and basal half of median lobe almost equal to the apical half.

11. **Atomaria klapperichi** Johnson


**General appearance** (Fig. 228) somewhat oblong, moderately broadly convex, pale yellowish brown, body covered with semi-erect moderately long pubescence.

**Head** broadly triangular with large, slightly projected, coarsely faceted eyes, antennal insertions distinctly apart, clypeus broad, its apical margin obtusely rounded, puncturation moderately dense, distinct and uniform,
pubescence directed towards middle line. Clypeus broad and its apical margin obtusely rounded. Antenna slender, scape rather short and broadly elongate, pedicel and segment 3 almost equal in length but slightly shorter than scape and progressively narrower, segments 3 to 6 alternately long and short, segments 7 and 8 rather short and almost equal, club loose and more elongate, segments 9 and 10 almost as broad as long, apical segment slightly longer. **Prothorax** transverse, widest at middle and narrowed in front, less so behind, front and hind angles obtuse, lateral and basal margins bordered, prebasal impression not extending up to lateral margin, punctuation more or less dense, space between punctures less than the width of each puncture, pubescence directed towards middle line. **Scutellum** small and semi-circular. **Elytra** broadest at middle, slightly narrowed in front, more so posteriorly, humeral angle slightly prominent, punctuation more or less similar to that of pronotum, but slightly sparser, pubescence directed posteriorly and outwards. Apical gape moderately long. **Aedeagus** of distinct type. Apical half of tegmen characteristic in shape and as figured (Fig. 261), slightly narrowed towards apex, apical angle slightly pointed and apical margin with 7 pairs of minute setae, similarly apical half of median lobe somewhat characteristic and forming a distinct triangle with a trilobed structure.

**Measurements** : Total length 2.08 mm, length of antenna 0.6 mm, length of head 0.16 mm, breadth of head 0.44 mm, length of pronotum 0.42 mm, breadth of pronotum 0.66 mm, length of elytra 1.5 mm, breadth of elytra 0.74 mm.

**Material examined** : 1 ex., Holotype ♂; Chhanga Manga plantation; Punjab, 1926, Coll. H.G. Champion in British Museum (Natural History). Material borrowed from British Museum (Natural History), London, and studied.

**Distribution** : INDIA : Punjab, also recorded from AFGHANISTAN : East.
Remarks: Species similar to *A. pudica* (Fig. 277) but unlike latter prothorax (Fig. 228) slightly more transverse, lateral margins slightly less rounded and more sharply narrowed in front and behind, size slightly larger (1.54 - 1.65 mm.), more oblong than *A. pudica*, eyes large and coarsely faceted, apical margin of tegmen with 7 pairs of minute setae and apical half of median lobe forming a trilobed structure.

12. *Atomaria raghubira* n.sp.

**General appearance** (Fig. 229) oval-elongate, similar to *A. incertula*, more narrowed in front than behind, reddish brown with moderately long pubescence and evenly punctured.

**Head** somewhat triangular with rather large, slightly projected and moderately faceted eyes, puncturation on vertex of head small and dense, pubescence moderately long, directed anteriorly and slightly towards middle line. Apical end of clypeus rather pointed, antennal insertions close and less than half the length of the scape. Antenna (Fig. 271) somewhat slender, scape large and elongated, pedicel smaller than scape, about half its size, segment 3 similar to pedicel but narrower, segments 4 to 8 small, almost similar and subequal, club rather loose, segments 9 and 10 slightly transverse and almost similar, apical segment elongated. **Prothorax** transverse, broadest at middle, more narrowed in front than behind, front angle obtuse, hind angle obtusely rounded, prebasal impression narrow and not extended upto lateral margin, puncturation on pronotum larger and sparser than that of on head, space between punctures about half the width of each puncture, pubescence directed anteriorly and towards middle line. **Scutellum** (Fig. 288) transversly triangular and its posterior margins narrowed apically. **Elytra** (Fig. 293) convex, broadest at middle, evenly
narrowed in front and behind, humeral angle prominent and elevated, puncturation sparser than that of on pronotum, space between punctures a little more than the width of each puncture, pubescence moderately long, directed posteriorly and slightly outwards. Apical gape short, narrow and rather indistinct. Aedeagus : Apical half of tegmen broader than A. lewisi, its apical margin uniformly rounded and truncated at the apex like A. lewisi (Fig. 242) but different in shape (Fig. 244), apex of median lobe knobbed, lateral margins of median lobe rather straight with a slight sinuation near base, lateral margin of basal half of median lobe almost straight and basal margin truncated.

Measurements : Total length 1.58 mm, length of antenna 0.6 mm, length of head 0.18 mm, breadth of head 0.4 mm, length of pronotum 0.4 mm, breadth of pronotum 0.56 mm, length of elytra 1.0 mm, breadth of elytra 0.78 mm.


Distribution : INDIA : West Bengal.

Remarks : Species resembles A. lewisi (Fig. 280) but can be separated by its prebasal impression on pronotum being complete (Fig. 229), scutellum (Figs. 284, 288) larger and of different shape, apex of median lobe of aedeagus knobbed, lateral margins of median lobe rather straight with a slight sinuation near base, lateral margin of basal half of median lobe almost straight and basal margin truncated.
13. *Atomaria lewisii* Reitter

Reitter 1877, *Dt. ent. z., 21*: 112;
Reitter 1887, *Verb. Brunn, 26* (Best.-Tab.16): 44;

**General appearance** (Fig. 223) reddish brown, moderately convex and somewhat oval. **Head** transverse with moderately large, somewhat projected and moderately finely faceted eyes, punctuation fine and moderately dense, pubescence directed towards middle line. Clypeus short and its apex pointed, antennal insertions close and its distance distinctly shorter than length of scape. **Antenna** (Fig. 270) rather short, scape moderately large, broadly elongate, pedicel narrower and shorter than scape, segment 3 slightly shorter and narrower than pedicel, segments 4 to 8 short and subequal, club short, segments 9 and 10 transverse and subequal, apical segment transversely elongated. **Prothorax** (Fig. 280) convex, evenly rounded, broadest across middle, distinctly narrowed in front, less so posteriorly, front angle obtuse but more or less sharply pointed, hind angle obtusely rounded, basal and lateral margin of posterior half finely bordered, prebasal impression narrow, almost extended upto lateral margin and narrowly divided in middle, punctuation on pronotum moderately large, and space between punctures about the width of each puncture, pubescence moderately long, directed anteriorly and towards middle line. **Scutellum** (Fig. 284) small, transverse, semi-circular and glabrous. **Elytra** (Fig. 301) short and broad, slightly longer than its breadth, broadest at the middle, uniformly narrowed in front and behind, humeral angle prominent and slightly elevated, punctuation similar to that of on pronotum but slightly sparser, space between punctures about one and half times the width of each puncture, pubescence rather dense, semi-recumbent and moderately long. Apical gape narrow and moderately
long. Aedeagus (Fig. 242) unlike *A. incertula* (Fig. 243), apical margin of tegmen uniformly rounded but slightly truncated at apex, apex of median lobe distinctly knobbed, lateral margins of median lobe curved with a distinct sinuation near base, lateral margin of basal half of median lobe sinuated near middle.

**Measurements**: Total length 1.66 mm, length of antenna 0.6 mm, length of head 0.2 mm, breadth of head 0.4 mm, length of pronotum 0.4 mm, breadth of pronotum 0.6 mm, length of elytra 1.06 mm, breadth of elytra 0.86 mm.

**Material examined**: 1 ex. Gurjakhani, Nepal, 83°14' E, 28°37' N, 2615.3 m, Coll. K.H. Hyatt. 3.VII.1954. damp moss and liverwort on rock; in British Museum (Natural History). Material borrowed from British Museum (Natural History), London and examined. Additional specimens from Darjeeling district and Sikkim have also been studied here, 2 exs., Jhepi, Darjeeling: West Bengal, 3.V.76, garbage of Cryptomorpha leaves, Coll. A.R. Bhawmik; 1 ex., Gangtok: Sikkim, 7.III.79, under haystack, Coll. S.K. Saha; in the Collection of Zoological Survey of India, Calcutta.

**Distribution**: INDIA: Uttar Pradesh, Manipur, West Bengal, Sikkim, NEPAL: Gurjakhani. The species is recorded here for the first time from West Bengal and Sikkim. The species is also widely distributed in Siberia, China, Japan, Mongolia, Eastern Asia, major part of Europe, Australia, New Zealand and Brazil.

**Remarks**: This species can be recognised by its short, broad, moderately convex body covered with small, semi-erect pubescence, shape of apical margin of clypeus different (Fig. 233), antennal segments not alternately long and short, club somewhat compact, eyes somewhat projected, prebasal impression divided in middle, apex of median lobe distinctly knobbed, lateral margins of median lobe curved with a distinct sinuation near base and
lateral margin of basal half of median lobe sinuated near middle.

14. **Atomaria madhama** n.sp.

**General appearance** (Fig. 234) broadly elongate, rather oblong, strongly convex, two times longer than its maximum width across middle of elytra, uniformly light reddish brown, puncturation rather small, distinct and moderately sparse, pubescence moderately long and semi-erect.

**Head** transverse, rather broadly triangular with moderately large, slightly projected and coarsely faceted eyes, puncturation on head uniform and similar to that of pronotum; pubescence directed anteriorly and towards middle line. Apex of clypeus obtuse angled and rather pointed, antennal insertions rather close, less than the length of scape. Antenna markedly slender, scape large and elongated, pedicel smaller than scape but narrower, segment 3 similar to pedicel but markedly narrower, segments 4 to 8 subequal and similar, club segments distinct, rather loose, progressively larger, rather transverse and cup-shaped, segment 9 slightly smaller and less transverse than segment 10, apical segment elongated. **Prothorax** strongly convex, broadest slightly in front of middle, slightly narrowed posteriorly, more markedly in front, lateral and hind margins finely bordered, front angle obtuse, hind angle obtusely rounded, front margin almost straight with a feeble sinuation near lateral margin, prebasal impression very narrow and short, restricted to the central part, puncturation uniform, distinct, rather small, space between punctures about half the width of each puncture, pubescence directed anteriorly and towards middle line. **Scutellum** (Fig. 284) transverse, its posterior margin slightly rounded, punctured and glabrous. **Elytra** (Fig. 299) convex, somewhat oblong, humeral angle normal, lateral
margin of elytra rather parallel-sided in anterior two-third, finely bordered, puncturation almost similar to that of on pronotum, space between punctures about three-fourths the width of each puncture; pubescence uniform, moderately long, semi-erect and directed posteriorly. Apical gape normal, narrow and not very distinct. Aedeagus not studied.

**Measurements**: Total length 1.74 mm, length of antenna 0.64 mm, length of head 0.18 mm, breadth of head 0.44 mm, length of pronotum 0.46 mm, breadth of pronotum 0.68 mm, length of elytra 1.1 mm, breadth of elytra 0.8 mm.


**Distribution**: INDIA: Madhya Pradesh.

**Remarks**: Species distinct and can be recognised from all other species of the genus by its rather oblong shape, slender antennae, short and narrow prebasal impression, rather parallel sided elytra which is narrowed in the posterior one-third.

15. **Atomaria obliqua** Johnson


**General appearance** (Fig. 231) moderately oblong and gently convex, species yellowish brown with distinct darker marking on elytra, more or less distinctingly punctured and covered with rather fine recumbent pubescence.

**Head** transverse, eyes rather small and moderately finely faceted, punctuation distinct, moderately large and sparse, pubescence directed anteriorly and towards middle line. Clypeus markedly short and slightly
projected in front, antennal insertions comparatively distant, slightly shorter than length of scape. Antenna rather slender, scape elongate, not very large, pedicel slightly shorter and narrower than scape, segment 3 and 5 equal and slightly narrower than pedicel, segment 7 slightly shorter than segment 5, segments 4, 6 and 8 small and somewhat moniliform, segments 3 to 8 alternately long and short, club loose and narrow, segments 9 and 10 almost equal, segment 11 long. Prothorax (Fig. 273) transverse, broadest at middle and uniformly narrowed in front and behind, moderately convex, front angle slightly obtuse, hind angle obtusely rounded, lateral margin darker, prebasal impression narrow almost extending up to lateral margin, puncturation almost similar to that of on head, distinct and dense, space between punctures about the width of each puncture, pubescence fine, directed anteriorly and slightly towards middle line. Scutellum (Fig. 289) transverse, slightly triangular and glabrous. Elytra convex on disc, broadest across middle, uniformly narrowed in front and behind, humeral angle normal, puncturation sparser than that of on pronotum, pubescence fine, short, recumbent and projected posteriorly. Apical gape short and prominent. Aedeagus: Apical margin of tegmen rounded but feebly narrowed towards apex, with 2 pairs of long and 3 pairs of short setae, apical margin of median lobe bilobed (Fig. 250), basal margin of posterior half of median lobe uniformly rounded.

Measurements: Total length 2.1 mm, length of antenna 0.72 mm, length of head 0.2 mm, breadth of head 0.42 mm, length of pronotum 0.5 mm, breadth of pronotum 0.6 mm, length of elytra 1.4 mm, breadth of elytra 0.74 mm.

Material examined: 1 ex., paratype ♀ Siblis: Nepal, 22.IV.54, damp earth litter in forest, Coll. Keith H. Hyatt, British Museum (Natural History). Material borrowed from British Museum (Natural History), London, and
examined. In this study 1 ex. from West Bengal and another from Meghalaya have been recorded. 1 ex., Ghum, Darjeeling : West Bengal, 19.IV.71, trap in soil, Coll. T. Sen Gupta; 1 ex. Risa Colony, Shillong : Meghalaya, 26.XI.74 from flower, Coll. T. Sen Gupta; in the Collection of Zoological Survey of India, Calcutta.

**Distribution** : INDIA : Himachal Pradesh, Meghalaya, Uttar Pradesh, West Bengal, AFGHANISTAN; NEPAL : Siblis.

**Remarks** : Even though this species has resemblance with a number of other species of the genus viz. *A. uttara* (Fig. 232), *A. shekhar*a (Fig. 238), *A. sukanya* (Fig. 237), *A. taruna* (Fig. 235), *A. eva* (Fig. 236) and *A. chandra* (Fig. 241), it can be separated from them by its short clypeus, distinctly elongated and slender antennae, prothorax widest at middle and uniformly narrowed and curved in front and behind, apical margin of tegmen of aedeagus (Fig. 250) rounded but feebly narrowed towards apex with 2 pairs of long and 3 pairs of short setae, apical margin of median lobe bilobed and basal margin of basal half of median lobe uniformly rounded.

16. Atomaria *uttara* n.sp.

**General appearance** (Fig. 232) similar to *A. eva* n.sp.

**Head** with slightly larger eyes. Clypeus shorter and less elongated, antenna shorter, stouter and segments less elongated. **Prothorax** widest almost in middle and prebasal impression extended almost upto lateral margins. Puncturation smaller and denser with hardly any space between punctures. **Scutellum** larger and more triangularly rounded. **Elytra** broader and less elongated, dark patch on elytra uniformly coloured and situated on anterior
half and less extended posteriorly. Puncturation denser than *A. eva* (Fig. 236). Tarsi lobed. **Aedeagus** (Fig. 251) with apical margin of tegmen somewhat rounded but truncated at apex with one pair of rather short setae, apical margin of median lobe truncated like *A. basanta* (Fig. 248), apical and basal halves of median lobe almost equal and basal margin almost straight.

**Measurements** of **Holotype**: Total length 1.44 mm, length of antenna 0.65 mm, length of head 0.14 mm, breadth of head 0.39 mm, length of pronotum 0.4 mm, breadth of pronotum 0.56 mm, length of elytra 0.9 mm, breadth of elytra 0.72 mm.

**Material examined**: 3 exs., **Holotype** ♂ and 2 **Paratypes** Ghum, Darjeeling: West Bengal, 2057.8 m 21.X.67, soil trap, Coll. Gy Topal. Holotype in Hungarian Natural History Museum, Budapest, Hungary and 2 Paratypes in the Collection of Zoological Survey of India, Calcutta.

**Distribution**: INDIA: West Bengal.

**Remarks**: This species (Fig. 232) is closely allied to *A. eva* n.sp. in its general appearance but differs from the latter species in having a little shorter and stouter antennae (Fig. 267), scutellum more triangularly rounded, elytra broader and more compact, dark patch on elytra uniformly coloured, situated on anterior half and less extended posteriorly, tarsi lobed, aedeagus different (Fig. 251) with apical margin of tegmen somewhat rounded but truncated at apex, with one pair of rather short setae and basal margin almost straight unlike *A. eva* (Fig. 253).

17. **Atomaria shekhara** n.sp.

**General appearance** (Fig. 238) similar to *A. obliqua* Johnson (Fig. 231) but
more compact.

Head: Clypeus less projected in front. Antenna shorter and segment 9 slightly more transverse. Prothorax more compact than A. obliqua (Fig. 273) broadest slightly above middle, border of apical and lateral margins not distinguishable, prebasal impression wider and not extended upto lateral margin, punctuation and pubescence similar to A. obliqua. Scutellum (Fig. 291) more semi-circular than triangular and pubescent. Elytra broadest in the anterior half, margin more convex, less elongated and more oval than A. obliqua, marking on elytra very faint and restricted to a small, somewhat rounded median patch. Aedeagus (Fig. 254) unlike A. obliqua (Fig. 250), both lateral margins of median lobe and tegmen almost uniformly parallel-sided, apical margin of tegmen uniformly broadly rounded and apex of median lobe angularly notched.

Measurements of Holotype: Total length 1.42 mm, length of antenna 0.5 mm, length of head 0.12 mm, breadth of head 0.4 mm, length of pronotum 0.4 mm, breadth of pronotum 0.54 mm, length of elytra 0.9 mm, breadth of elytra 0.74 mm.


Distribution: INDIA: Meghalaya.

Remarks: This species (Fig. 238) differs from A. obliqua (Fig. 231) in having 3rd and 4th tarsi slightly lobed, prebasal impression wider and not extended upto lateral margin, elytral margin more convex, elytra less elongated and oval, marking on elytra very faint and restricted to a small, somewhat rounded median patch. Aedeagus well developed and both lateral
margin of median lobe and tegmen almost uniformly parallel-sided, apical margin of tegmen uniformly broadly rounded, arrangement of setae distinctive type and as figured (Fig. 254), apex of median lobe angularly notched.

18. *Atomaria sukanya* n.sp.

**General appearance** (Fig. 237) similar to *A. obliqua* Johnson (Fig. 231).

**Head**: Eyes larger, antennal segments more elongated, club segments less transverse and rather parallel sided. **Prothorax** similar to *A. obliqua* but prebasal impression short and not extended up to lateral margin, lateral margin not bordered. **Scutellum** slightly more rounded. **Elytra** more convex and broadly oblong, shape of dark marking on elytra different, border not distinguishable. **Aedeagus** (Fig. 257) different from *A. obliqua* (Fig. 250), well developed and markedly large, apical half of tegmen broad, spoon-like in appearance, narrowed in front and broadly rounded apically, arrangement of setae characteristic and as figured (Fig. 257), median lobe broad, its apical margin broadly rounded and somewhat straight at middle.

**Measurements of Holotype**: Total length 1.68 mm, length of antenna 0.64 mm, length of head 0.18 mm, breadth of head 0.38 mm, length of pronotum 0.4 mm, breadth of pronotum 0.6 mm, length of elytra 1.1 mm, breadth of elytra 0.82 mm.

**Material examined**: 1 ex. Holotype ♂, Lava, Darjeeling: West Bengal, 2215.3 m, 9.IV.76, leaf garbage beside stream, Coll.A.R. Bhawmik, in the Collection of Zoological Survey of India, Calcutta.

**Distribution**: INDIA: West Bengal.

**Remarks**: This species (Fig. 237) also resembles *A. obliqua* (Fig. 231) in
external appearance but differs by its segments 10 and 11 of antenna being parallel-sided and somewhat elongate, eyes larger with larger facets, prebasal impression short and not extended up to lateral margin, lateral margin of prothorax and elytra not bordered, scutellum smaller and semi-circular, shape of dark marking on elytra different (Fig. 237) and elytra more convex and broadly oblong, aedeagus well developed and markedly large, apical half of the tegmen broad, spoon-like in appearance, narrowed in front and broadly rounded apically, arrangement of the setae characteristic and as figured (Fig. 257), median lobe broad, its apical margin broadly rounded and somewhat straight at middle.

19. *Atomaria taruna* n.sp.

**General appearance** (Fig. 235) somewhat similar to *A. obliqua* Johnson (Fig. 231) and allied ones but more compact. **Head** with smaller eyes, antennal club segments different, antennae rather short. **Prothorax** widest just in front of middle, lateral margin of prothorax somewhat less evenly rounded, border not distinguishable, prebasal impression short, broad and lobed. **Scutellum** smaller and its posterior margin more rounded. **Elytra** more compact, lateral margin more parallel-sided in the anterior half and not bordered, dark marking on elytra wider, occupying about one-third of it, apical gape longer and more prominent. **Aedeagus** (Fig. 252) different from *A. obliqua* (Fig. 250), apical margin of tegmen uniformly rounded with 10 pairs of moderately long setae, apical half of median lobe broadened at apex, its apical margin truncated and notched at middle, narrowed towards base, basal margin of posterior half of median lobe abruptly broadened.
Measurements of Holotype: Total length 1.5 mm, length of antenna 0.64 mm, length of head 0.12 mm, breadth of head 0.38 mm, length of pronotum 0.4 mm, breadth of pronotum 0.56 mm, length of elytra 0.98 mm, breadth of elytra 0.72 mm.

Material examined: 9 exs., Holotype ♂ and 8 Paratypes, Ghum, Darjeeling: West Bengal, 2200 m, 21.X.67, soil trap, Coll. Gy Topal; 4 paratypes in the Collection of Zoological Survey of India, Calcutta; Holotype and 4 paratypes in the Collection of Hungarian Natural History Museum, Budapest, Hungary.

Distribution: INDIA: West Bengal.

Remarks: This species though related to the species A. obliqua (Fig. 231) and allied ones, differs from them by its appearance (Fig. 235) being more compact, antennal club segments different, antennae rather short, lateral margin of prothorax somewhat less evenly rounded, prebasal impression short, broad and lobed, scutellum small and semi-circularly rounded, prothorax and elytra not bordered, dark marking on elytra wider, occupying about one-third of it, apical gape longer and more prominent, aedeagus (Fig. 252) unlike A. obliqua (Fig. 250) apical margin of tegmen uniformly rounded with 10 pairs of moderately long setae, apical half of median lobe broadened at apex, its apical margin truncated and notched at middle, narrowed towards base, basal margin of posterior half of median lobe abruptly broadened.

20. Atomaria eva n.sp.

General appearance (Fig. 236) similar to A. taruna n.sp. (Fig. 235).

Head with slightly larger eyes, antennal segments less markedly alternately
long and short, antennal club segments more transverse. **Prothorax**: Shape different, broadest across middle, narrowed in front and slightly behind, prebasal impression narrowed and not lobed. **Scutellum** with margin more angular. **Elytra** with dark patch divided transversely into lighter and darker zones, lateral margin more convex. **Aedeagus** (Fig. 253) with apical half of tegmen broadly elongate and uniformly narrowed towards apex, margin fringed with several prominent and moderately long setae, apical margin of median lobe strongly bilobed and narrowed in front, basal margin of basal half of median lobe rounded.

**Measurements of Holotype**: Total length 1.44 mm, length of antenna 0.64 mm, length of head 0.12 mm, breadth of head 0.36 mm, length of pronotum 0.38 mm, breadth of pronotum 0.54 mm, length of elytra 0.94 mm, breadth of elytra 0.68 mm.

**Material examined**: 1 ex., **Holotype** ♂, Ghum, Darjeeling : West Bengal, 7.IV.78, Coll. A.R. Bhawmik, in the Collection of Zoological Survey of India, Calcutta.

**Distribution**: **INDIA**: West Bengal.

**Remarks**: Species similar to **A. taruna** n.sp (Fig. 235) in appearance (Fig. 236) but shape of prothorax is different, broadest across middle, narrowed in front and slightly behind, antennal club loose, and segments more transverse, prebasal impression narrower, not extended upto lateral margin and not lobed, scutellum smaller and somewhat less rounded and more angular. Unlike other allied species dark elytral patch divided transversely into lighter and darker zones, aedeagus (Fig. 253) unlike **A. taruna** (Fig. 252), apical half of tegmen broadly elongate and uniformly narrowed towards apex, apical margin rounded but slightly truncated at apex, margin fringed with several prominent and moderately long setae, apical margin of median lobe strongly bilobed and narrowed in front, basal margin of the
basal half of the median lobe rounded.

21. **Atomaria chandra** n.sp.

**General appearance** (Fig. 241) somewhat similar to *A. sukanya* n.sp. (Fig. 237).

**Head** similar to *A. sukanya* but with smaller eyes and slightly coarser facets, antennae more slender. **Prothorax** : Shape different in that it is widest in front of middle at anterior one-third, pubescence markedly short, fine and sparser, prebasal impression longer and more extended towards lateral margin, puncturation larger and denser. **Scutellum** more rounded.

**Elytra** similar to *A. sukanya* but more parallel sided in the anterior half and more narrowed posteriorly, dark marking on elytra narrower and fainter.

Legs with tarsi not lobed. **Aedeagus** (Fig. 247) different from *A. sukanya* n.sp. (Fig. 257) in that apical margin of tegmen triangularly truncated, apical margin of median lobe somewhat truncated, basal half of median lobe rather elongated and basal margin almost straight.

**Measurements of Holotype** : Total length 1.67 mm, length of antenna 0.72 mm, length of head 0.16 mm, breadth of head 0.4 mm, length of pronotum 0.41 mm, breadth of pronotum 0.56 mm, length of elytra 1.1 mm, breadth of elytra 0.8 mm.

**Material examined** : 1 ex., Holotype ♀, Pashoke, Darjeeling : West Bengal, 7.IV.78, on grass, Coll. A.R. Bhawmik, in the Collection of Zoological Survey of India, Calcutta.

**Distribution** : INDIA : West Bengal.

**Remarks** : This species (Fig. 241) resembles *A. sukanya* n.sp. (Fig. 237) but differs in having more slender antennae, shape of prothorax different and
broader at anterior one-third, pubescence markedly short and fine, dark marking on elytra narrow and less dark, scutellum more rounded, aedeagus with apical margin of tegmen triangularly truncated (Fig. 247), apical margin of median lobe somewhat truncated, basal half of median lobe rather elongated as in *A. basanta* n.sp. (Fig. 248) but unlike latter species apical half not rectangular and basal margin almost straight.

22. *Atomaria kaushika* n.sp.

**General appearance** (Fig. 240) rather short, moderately broadly oval, convex, uniformly bright reddish brown, sharply depressed between pronotum and elytra, punctuation uniform and distinct, covered with short semi-recumbent pubescence.

**Head** transverse, rather triangular, eyes moderately large, slightly projected and with medium sized facets. Punctuation on vertex of head rather dense, pubescence directed anteriorly and towards middle line. Apical end of clypeus acutely pointed, antennal insertions close, less than the length of scape. Antenna rather slender, scape large and globularly elongated, pedicel slightly shorter than scape but narrower, segment 3 narrower than pedicel and equal to segment 5, segments 3 to 8 distinctly alternately long and short, segment 7 slightly smaller than segment 5, club loose and its segments elongated, almost parallel-sided, and progressively larger, apical segment elongated. **Prothorax** (Fig. 272) strongly convex, broadest slightly behind middle, feebly narrowed posteriorly, more so in front, lateral margin dark, front margin almost straight with a feeble sinuation near eyes, front angle rather obtuse, hind angle obtusely rounded, prebasal impression moderately broad, not extending upto lateral margin, punctuation on
pronotum distinct, small and sparse, space between punctures about one and one-fourth the width of each puncture, pubescence directed anteriorly and towards middle line. **Scutellum** (Fig. 287) transversely semi-circular, small, glabrous and punctated. **Elytra** (Fig. 294) broadly elongate, convex, broadest at middle, humeral angle slightly raised, lateral margin finely bordered, puncturation sparser than that of on pronotum, space between punctures almost twice the width of each puncture, pubescence short and directed posteriorly. Apical gape elongated, moderately wide, distinct and prominent. **Legs** slightly paler, tarsal segments 3 and 4 more or less distinctly lobed. **Aedeagus** well developed and can be separated from other known species of **Atomaria** from India by the shape of median lobe with sharply pointed apex and apical margin distinctly triangular with a basal hook like short projection, shape of tegmen and position of apical setae as figured (Fig. 260).

**Measurements of Holotype:** Total length 1.74 mm, length of antenna 0.76 mm, length of head 0.16 mm, breadth of head 0.4 mm, length of pronotum 0.44 mm, breadth of pronotum 0.62 mm, length of elytra 1.14 mm, breadth of elytra 0.88 mm.


**Distribution**: INDIA: Assam, Sikkim, West Bengal.

**Remarks**: This is a distinct species and can be recognised by its antennal segments 3 to 8 markedly long and short but segments 4, 6 and 8 not moniliform, tarsi lobed, shape of median lobe of aedeagus with sharply pointed apex and apical margin distinctly triangular with a basal hook like short projection. The species from Gangtok has a slightly different aedeagus but no attempt has been made here to establish a new species as to do so further study is required.

23. **Atomaria basanta** n.sp.

**General appearance**: elliptical, covered with rather long, semi-erect pubescence, head and prothorax dark reddish brown and elytra slightly paler.

**Head** broadly triangular with somewhat large, moderately coarsely faceted eyes, punctuation on vertex of head small, rather dense and uniform, pubescence directed towards middle line. Apical end of clypeus obtusely angled but sharp, antennal insertions close, less than length of scape. Antenna rather short with stout, somewhat moniliform segments, scape large and globularly elongated, pedicel distinctly smaller than scape, about half its size, segment 3 almost similar to pedicel but narrower, segments 4 to 8 markedly alternately long and short, segment 5 almost similar to segment 3. Club segments loose, segment 9 less transverse, segment 10 transverse, apical segment elongated. **Prothorax** (Fig. 276) transverse,
broadest at base, progressively narrowed in front. Apical margin of prothorax slightly sinuate, front angle acute, hind angle obtusely rounded, prebasal impression short, narrow and not extended up to lateral margin, puncturation similar to that of on head, space between punctures about half the width of each puncture, pubescence long and directed towards middle line. Scutellum transversely triangular (Fig. 302). Elytra rather parallel-sided in its anterior half, widest in middle and progressively narrowed behind, base of elytra broader than pronotum, humeral angle normal, puncturation sparser than that of pronotum, space between punctures about the width of each puncture, pubescence long, semi-erect and directed posteriorly. Apical gape long and narrow but distinct. Aedeagus (Fig. 248) : Apical margin of tegmen and median lobe truncated like A. pudica n.sp. (Fig. 249) but unlike latter tegmen with rather short setae arranged in two bunches, lateral margins of median lobe rather straight making the shape of the apical half somewhat rectangular, basal half of median lobe longer than apical half, basal margin of median lobe almost straight.

Measurements : Total length 1.56 mm, length of antenna 0.76 mm, length of head 0.12 mm, breadth of head 0.4 mm, length of pronotum 0.4 mm, breadth of pronotum 0.6 mm, length of elytra 1.04 mm, breadth of elytra 0.72 mm.


Distribution : INDIA : West Bengal.

Remarks : This species is near to Atomaria tristis Johnson but can be recognised by its clypeus being broader and forming an obtuse angle, front margin of pronotum less sinuate near eyes, prebasal impression not
extended up to lateral margin, prothorax broadest at base and progressively narrowed anteriorly, elytra being rather parallel-sided in the anterior half, lateral margins of median lobe of aedeagus rather straight making the shape of the apical half somewhat rectangular, basal half of median lobe longer than apical half, basal margin of median lobe almost straight.

24. **Atomaria khumbuensis** Johnson


**General appearance** moderately to somewhat strongly arched, reddish brown, covered with recumbent pubescence.

**Head** often slightly darker, antenna somewhat thick, scape elongated, pedicel shorter than scape, club strongly transverse and moderately broad.

**Prothorax** with a vaguely darker area on either side of disc, transverse, convex, broadest almost at middle, lateral margins evenly curved and narrowed both in front and behind, not bordered, base with a transverse depression which gradually narrows towards hind angles, hind margin feebly bordered and curved, punctuation moderate, space between punctures about half the width of each puncture. **Elytra** moderately to somewhat convex, vague dark marking on either side of disc, humped at posterior one-third, broadest at middle, lateral margin curved, punctures a little smaller and sparser than on pronotum, space between punctures about one to two times the width of each puncture. Wings absent. **Aedeagus** characteristic (Fig. 245), apical margin of tegmen uniformly rounded, with 3 pairs of long and 2 pairs of short setae, apical margin and posterior half of median lobe triangular (Fig. 245).

**Measurements** : Total length 1.33 - 1.47 mm, length of antenna 0.58 - 0.64
mm, breadth of pronotum 0.53 - 0.61 mm, breadth of elytra 0.64 - 0.72 mm.

**Material examined**: 5 exs., **Holotype** ♀ Khumbu : Nepal, 23.X.70, 2950 m, Coll. J. Martens, 4 exs. Khumbu : Nepal, 1.X.70, 3250-3300 m, soil litter in subalpine birch forest, Coll. J. Martens.

**Distribution**: NEPAL : Khumbu.

**Remarks**: This is a distinct species and can be recognised by its general body form, antennal structure, absence of wings, aedeagus of characteristic shape (Fig. 245), with apical margin and posterior half of median lobe triangular.

Description after Johnson, 1971a.
KEY TO THE INDIAN SPECIES OF ATOMARIA Stephens

1. Species black or blackish brown, at least head and prothorax................................................................................................................. 2

1'. Species not blackish but yellowish or reddish brown..................... 5

2(1) Species distinctly elongated, head and prothorax blackish brown, elytra, antennae and legs reddish brown; antennal segments stouter, prothorax scooped on either side near basal margin, aedeagus of characteristic shape (Fig. 255) with apical margin of tegmen fringed with moderately long uniformly arranged setae and apical margin of median lobe somewhat bilobed in appearance....................... A. gracilicornis Reitter

2' Species more oval, head, prothorax and elytra blackish brown, antennal segments narrower and elongated, prothorax not scooped, aedeagus not as above.................................................. 3

3(2') Species with posterior one-third of elytra yellowish brown (Fig. 224) prebasal impression broad and extended almost upto lateral margin, eyes small and not projected.............. A. sawpna n.sp.

3' Posterior one-third of elytra not yellowish brown, prebasal impression short, somewhat narrow and not extended upto lateral margin, eyes somewhat large and projected....................... 4
4(3') Hind tarsi lobed (Fig. 226), scutellum small and transverse, front margin of prothorax straight, elytra widest at anterior one-third, antennal segment 9 less transverse and somewhat conical, aedeagus characteristic (Fig. 259)........................................... * A. shyama n.sp.

4' Hind tarsi not lobed (Fig. 225), scutellum large and semi-circular, front margin of prothorax slightly sinuate near eyes, elytra widest in middle, antennal segment 9 somewhat transverse and not conical........................................... A. kala n.sp.

5(1') Elytra yellowish or reddish brown with dark marking on elytra (Figs. 231, 232, 235-238)........................................................ 6

5' Elytra yellowish or reddish brown without dark marking on elytra .......................................................................................... 12

6(5) Dark marking on elytra divided transversely into lighter and darker zones (Fig. 236), apical margin of tegmen of aedeagus rounded but slightly truncated at apex, apical margin of median lobe strongly bilobed and narrowed in front, basal margin of basal half of median lobe rounded (Fig. 253)................................................. * A. eva n.sp.

6' Dark marking on elytra different and not transversely divided into lighter and darker zones, aedeagus not as above.......................................................... 7
7(6') Dark marking on elytra elaborate occupying about one-third of it, prebasal impression divided and bilobed at middle, tegmen of aedeagus narrowed in front and its apical margin uniformly rounded, apical half of median lobe broadened at apex, its apical margin truncated and notched at middle (Fig. 252)...... A. taruna n.sp.

7' Dark marking on elytra not so elaborate and not occupying one-third, prebasal impression not lobed, aedeagus not as above................................................................................................. 8

8(7') Tarsi not lobed (Fig. 231), eyes smaller, antennal segments elongated....................................................................................................................... 9

8' Tarsi lobed (Fig. 238), eyes larger, antennal segments less elongated......................................................................................................................... 10

9(8) Prebasal impression (Fig. 273) extended upto lateral margin, prothorax broadest at middle and evenly rounded in front and behind, scutellum more transverse and its posterior margin not rounded, apical margin of tegmen of aedeagus (Fig. 250) rounded and feebly narrowed towards apex, apical margin of median lobe bilobed, basal margin of posterior half of median lobe uniformly rounded................................. A. obliqua Johnson

9' Prebasal impression not extended upto lateral margin,
prothorax broadest in anterior half and more narrowed in front than behind (Fig. 241), scutellum less transverse and its posterior margin rounded, apical margin of tegmen of aedeagus triangularly truncated, apical margin of median lobe not bilobed but truncated, basal margin of posterior half of median lobe almost straight (Fig. 247) ............................................................. A. chandra n.sp.

10(8') Elytral margin rounded, elytra widest at middle, scutellum large, transverse and semi-circular, marking on elytra very faint and restricted only to a small and somewhat rounded median patch (Fig. 238), lateral margin of tegmen and median lobe of aedeagus uniformly parallel-sided, apical margin of tegmen uniformly broadly rounded, apex of median lobe angularly notched................................................................. A. shekhara n.sp.

10' Elytral margin somewhat parallel-sided in anterior half, elytra not widest at middle, scutellum smaller and not semi-circular, marking on elytra dark and not rounded. Aedeagus not as above................................................................. 11

11(10') Eyes smaller, antennal segments stouter, prebasal impression extended almost upto lateral margin, apical margin of tegmen of aedeagus somewhat truncatedly rounded at apex (Fig. 251), apical margin of median lobe truncated, apical and basal halves of median lobe almost equal................................................. A. uttara n.sp.
11’ Eyes larger, antennal segments more slender, prebasal impression rather markedly short, aedeagus markedly large (Fig. 257), apical margin of tegmen not truncated at apex, apical margin of median lobe broadly rounded, apical and basal halves of median lobe not equal.............

........................................................ A. sukan ya n.sp.

12(5’) Antennal segments 3 to 8 distinctly alternately long and short (Figs. 262, 263, 268) ................................................................. 13

12’ Antennal segments 3 to 8 not alternately long and short (Figs. 270, 271)........................................................................................ 17

13(12) Pronotum scooped on either side near basal margin (Fig. 275)........................................................................................................ 14

13’ Pronotum not scooped on either side near basal margin............. 15

14(13) Species (Fig. 221) elongated and rather elliptical in shape, scutellum transverse, prebasal impression narrow, lateral margin of elytra less markedly convex, aedeagus (Fig. 256) simple........................................ A. prolixa Erichson

14’ Species (Fig. 222) not elongated and rather oval, scutellum less transverse and rather squarish, prebasal impression broad, lateral margin of elytra markedly convex.............

........................................................ A. toridda Johnson
15(13') Front margin of prothorax distinctly sinuate near eyes (Fig. 282), prebasal impression extended upto lateral margin, scutellum transverse, elytra broadest in posterior two-third, apical end of tegmen of aedeagus distinctly bilobed with 5 pairs of moderately long setae, giving the appearance of parameres (Fig. 258), apical end of median lobe triangularly pointed.............. A. tristis Johnson

15' Front margin of prothorax not distinctly sinuate near eyes, prebasal impression not extended upto lateral margin, scutellum less transverse, elytra not broadest in posterior two-third, aedeagus not as above................................... 16

16(15') Tarsi lobed, antennal segments 4, 6 and 8 not moniliform, scutellum small and not triangular, lateral margin of elytra convex, shape of median lobe of aedeagus with sharply pointed apex and apical margin sharply triangular with a basal hook like short projection (Fig. 260)........................................... A. kaushika n.sp.

16' Tarsi not lobed, antennal segments 4, 6 and 8 moniliform (Fig. 239), scutellum larger and triangular, lateral margin of elytra almost parallel-sided in the anterior half, shape of median lobe of aedeagus (Fig. 248) not pointed, apical margin truncated.............................. A. basanta n.sp.

17(12') Eyes large and projected, antennal segment 7 distinctly
larger than segment 4 to 8, apical end of median lobe of 
aedeagus (Fig. 242-244) with distinct knob or finger 
like projection................................................................. 18

17' Eyes smaller and less projected, antennal segment 7 almost similar to segments 4 to 8, apical end of median lobe of aedeagus without finger or knob-like projection......... 20

18(17) Prebasal impression divided in middle (Fig. 280), scutellum small and transverse, lateral margins of median lobe of aedeagus (Fig. 242) curved with a distinct sinuation near base (Fig. 242), lateral margin of basal half of median lobe sinuated near middle............... A. lewisi

18' Prebasal impression not divided in middle, scutellum larger and not transverse (Fig. 223), lateral margins of median lobe of aedeagus (Fig. 243) not curved and without distinct sinuation at base, lateral margin of basal half of median lobe without sinuation......................................................... 19

19(18') Prothorax evenly rounded in front and behind, scutellum larger and somewhat semi-circular, elytra distinctly narrowed posteriorly (Fig. 303), apical end of median lobe of aedeagus (Fig. 243) with finger like projections, lateral margins of apical half of median lobe almost straight with a slight broadening at apical one-third, basal half of median lobe narrowed posteriorly and its basal margin distinctly curved (Fig. 243).................................................................

................................................................. A. incertula Johnson

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19' Prothorax more narrowed in front, scutellum small and not semi-circular (Fig. 288), elytra less narrowed posteriorly, apical end of median lobe of aedeagus with knob like projection (Fig. 244), lateral margin of median lobe rather straight with a slight sinuation near base, basal half of median lobe almost rectangular and its basal margin truncated. A. raghubira n.sp.

20(17') Species rather broad and less oval (Fig. 234), prothorax widest in front of middle, elytra rather parallel-sided in the anterior half. A. madhama n.sp.

20' Species oval, prothorax widest almost in middle, elytra not parallel-sided and more uniformly curved. 21

21(20') Species large, antenna slender and its segments elongated, apical half of tegmen of aedeagus narrowed towards apex, apical half of median lobe forming a distinct triangle with a trilobed structure (Fig. 228). A. klapperichi Johnson

21' Species small, antenna less slender and its segments less elongated, apical half of tegmen of aedeagus less or not narrowed towards apex, apical half of median lobe not forming triangle and without trilobed structure. 22

22(21') Lateral margin of prothorax evenly curved, (Fig. 277), elytra widest at middle (Fig. 292), apical margin of tegmen
and median lobe of aedeagus strongly truncated (Fig. 249), basal margin of median lobe feebly curved..........

.................................................. A. pudica Johnson

22' Lateral margins of prothorax not evenly curved, elytra widest at anterior one-third (Fig. 300), apical margin of tegmen of aedeagus uniformly rounded, apical margin of median lobe truncated, basal margin of median lobe more strongly curved (Fig. 246)............... A. asha n.sp.