### **ON A COLLECTION OF CLAVICORN BEETLES** (FAMILIES EROTYLIDAE, ENDOMYCHIDAE AND LANGURIIDAE) FROM ARUNACHAL PRADESH, INDIA

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### INTRODUCTION

The Erotylidae, Endomychidae and Languriidae are sharply defined moderately large families of the section Clavicornia under the superfamily Cucujoidae. The representatives of these families are small to large, elongate or elongate-ovoid, generally brightly coloured with slender legs and clavate antennae. Despite having distinct characteristics they are often confused with one another for many sharing characters and great similarity in appearance. The first two families (viz., Erotylidae and Endomychidae) share the same habitat of fungal background and similar prevailing colouration therewith. The Languriidae on the other hand are not fungus-frequenting beetles but are phytophagous, especially in the larval stage. These immatures live within vegetal parts of plants and this narrow space of living might have contributed to the elongated body form of the languriids. These three families are largely tropical with very few representatives in temperate regions. The erotylids and endomychids being associated with fungus grown upon rotting woods and languriids dependent upon various shrubs or trees, are all primarily forest dwellers. Variety of vegetation in different altitudes plus abundance of rotting tree stumps in humid forests of Arunachal Pradesh have facilitated a good growth and assemblage of these families in this region.

Following the publication of Arrow's 'Fauna' in 1925 not much works have come out from the Indian region. Only recently Sengupta and Mukherjee (1977, 1979, 1985) have dealt with the languriines of Himalaya and described a new genus from this part; Vazirani and Saha (1972) described 1 new endomychid species, and Strohecker (1914, 1975, 1982, 1983) described 1 new genus, 11 new species and recorded 2 Sri Lankan species of Endomychidae from India. Though prevalent in parts of India including Arunachal Pradesh and less emphasized in recent studies, a renewed attention is given to these 3 families keeping in view of the destruction of climax forests in which most of these beetles specialize. Threat to many of them are thereby well apparent. The present work is based on some recent collection, made by the author in different districts of Arunachal Pradesh. This collection comprises 16 species under 11 genera. Of these, 10 species under 6 genera (including 2 new species) are from Erotylidae, 3 species under 2 genera are from Endomychidae and 3 species under 3 genera are from Languriidae. Uptil now about 79 species of Erotylidae, 66 species of Endomychidae and 76 species of Languriidae are recorded from the Indian territory.

### SALIENT EXTERNAL DIFFERENCES OF THREE FAMILIES

	Erotylidae	Endomychidae	Languriidae
i)	Tarsal formula 5-5-5	Tarsal formula 4-4-4	Tarsal formula 5-5-5
i)	Front coxal cavities closed	Front coxal cavities open	Front coxal cavities open
iii)	No fovae on pronotal base	A pair of fovae on pronotal base	Usually a pair of fovae on pronotal base; rarely absent
			(Cryptophilinae)

#### SYSTEMATIC ACCOUNT Family EROTYLIDAE Subfamily DACNINAE Genus

## I. Episcapha Lacordaire

1842. Episcapha Lacordaire, Monog. Erotyl. : 48 [Type species : Engis quadrimacula Wiedemann]

### 1. Episcapha xanthopustulata Gorham

1890. Episcapha xanthopustulata Gorham, Notes Leyd. Mus., 12: 46.

1925. Episcapha xanthopustulata : Arrow, Fauna Brit. India, Coleoptera, Clavicornia : 41.

**Diagnosis** : Facies elongate-ovoid, subdepressed and covered with fine velvetty pubescence; head with large eyes, 11-segmented antenna with 3-segmented club; transverse prothorax with lateral margins gently curved and converging in front but rather straight and parallel behind; elongate-ovoid elytra with linear straitions; entirely blackish body with orange spot in the middle of forehead, two transverse orange bands on each elytron - one at base and other before apex, bands rather irregular in outline. Length 11-13 mm.

Material examined : 2 ex. India : Arunachal Pradesh, Lower subansiri Distt., Tago, 10 km. O-Yazali, 1 ex., 17. ix. 1988, T.K. Pal, ex. fungusy log; Dibang Valley Distt., 3 km. O-Roing, 400 m., 1 ex., 8.ix.1991, T.K. Pal, ex. fungusy log.

Distribution : India : Arunachal Pradesh (New record); Myanmar; Indonesia; Singapore.

### 2. Episcapha indica Crotch

1876. Episcapha indica Crotch, Cist. Ent., 1: 408.

- 1878. Episcapha chapuisi Dohrn. Stettin ent. Zeit., 39: 449.
- 1925 Episcapha indica : Arrow, Fauna Brit. India. Coleoptera, Clavicornia : 43.

Diagnosis: Facies elongate-ovoid, subdepressed, moderately shiny, upper surface of elytra devoid of pubescence and head and pronotum with scanty short pubescence; head rather strongly punctate, antennal club little longer than segments 4 to 8 together; transverse prothorax with lateral margin evenly curved, pronotal border raised but not carinate, pronotal disc rather strongly punctate; elytral punctures fine and diffused; blackish body with each elytron possesses two yellow patches, one at base occupying humeral angle and enclosing a small black humeral spot, other patch behind middle and transverse, patches are irregular in outline. Length 14 mm.

Material examined : 1 ex. India : Arunachal Pradesh, Lower subansiri Distt., Tago, 10 km. O-Yazali, 17.ix.1988, T.K. Pal, ex. loose bark.

Distribution : India : West Bengal (Darjeeling Distt.), Arunachal Pradesh (New record); Myanmar.

3. Episcapha nocte, n. sp.

General appearance (Fig. 1) elongate-ovoid, subdepressed, covered with fine velvetty pubescence; blackish body and elytra decorated with two pairs of broad bands.

Head broader than long, apical margin truncate; eyes large and coarsely facetted, separated dorsally by little less than thrice its width; antennal insertions widely separated; puncturation on dorsal side moderately coarse and dense, interspaces about as wide as punctures. Antenna moderately long and slender, scape moderately large and broadly elongate, pedicel shorter and narrower than scape, segments 3-6 subequal and a little elongate, segments 7 and 8 subequal and about as broad as long, club 3-segmented and rather compact with segments more or less transverse.

Prothorax transverse, widest at base, moderately narrowed anteriorly, sides feedly rounded, front margin deeply emarginate, front angles acutely produced; lateral margin distinctly carinate, two pits on either extremity and third one near anterior third; base bisinuate with a broad median lobe, no prebasal impression; pronotum densely punctate but a little finer than that of head, setae projected towards middle line. Scutellum transverse, punctate public ent.

Elytra broadly elongate, little wider than prothorax at base, sides nearly parallel or indistinctly curved in anterior two-thirds and narrowed at posterior third, elytral apices rounded separately; finely and densely punctate with puncture irregularly arranged, dense setae projected posteriorly; each elytron decorated with two large reddish-yellow spots, first one situated little below base, rather subquadrate and touching base by a broad stalk and leaving a black spot at humeral angle, second transverse and situated considerably above apex, coloured spots not touching either inner or outer margin.

Ventral surface shiny, punctures finer, entirely blackish.

Measurements of holytype : Total length 12.0 mm., width of head across eyes 2.0 mm., length of antenna 3.52 mm., length and width of prothorax 2.50 and 3.80 mm., length and width of elytra 8.40 and 4.80 mm.

Holotype 1 ex., India : Arunachal Pradesh, Tirap District, Tisa, 270 m., 16.iii.1990, T.K. Pal, ex. fungusy bark (Zoological Survey of India, Calcutta).

Etymology: This species is named after the ethnic aborigines of the area (Tirap district) from where the species is described.

Comments: This species resembles quadrimacula (Wiedemann) and xanthopustulata Gorham. It can be distinguished from quadrimacula by its prothorax proportionately less wide, gradually converging from posterior towards anterior side, posterior angles slightly acute (not right angle as in quadrimacula), front angles more acutely produced, lateral margin of pronotum distinctly carinate and devoid of submarginal border, pronotal disc more closely and densely punctate, and hairy clothing on body a little finer. In addition to above characters absence of orange spot on forehead and devoid of linear striated punctures of elytra separate this species from xanthopustulata.

#### Genus II. Megalodacne Crotch

1873. Megalodacne Crotch, Trans. Amer. Ent. Soc., : 352 [Type species : Ips fasciata Fabricius].

### 4. Megalodacne vitalisi Arrow

1921. Megalodacne vitalisi Arrow, Trans. Ent. Soc. London, 1921: 287.

1925. Megalodacne vitalisi Arrow, Fauna Brit. India, Coleoptera, Clavicornia: 49.

**Diagnosis**: Elongate-oval and moderately convex in form, dorsum smooth and shining; head strongly punctate with coarsely facetted large eyes, 11 segmented slender antenna with 3-segmented loose club and 3rd antennal segment fairly longer than the 4th; prothorax slightly broader than long with sides little convergent in front and rather parallel behind, front angles acutely produced with pronotal disc rather strongly and evenly punctate; lateral margins of elytra narrowly flanked, punctures in longitudinal rows with interspaces minutely punctate; blackish body, each elytron with two reddish spots - one in both anterior and posterior halves, spots lateral but not reaching margin, anterior spot extends to near suture and reaching base leaving only a small black area, posterior spot placed before apex which is arched behind and produced at three points anteriorly. Length - 8-8.2 mm.

Material examined : 4 ex. India : Arunachal Pradesh, Dibang Valley Distt., 14 km. O-Mayodia, 1900 m., 4 ex., 17.ix.1991, T.K. Pal, ex. rotten wood.

Distribution : India : Arunachal Pradesh (New record), West Bengal (Darjeeling Distt.); Myanmar; Viet-Nam.

### 5. Megalodacne consimilis Arrow

#### 1925. Megalodacne consimilis Arrow, Fauna Brit. India. Coleoptera, Clavicornia: 53.

**Diagnosis**: Elongate-oval and moderately convex in form, dorsum smooth and shining; head and antennal features similar to M. vitalisi; distinctly transverse prothorax (1 : 1.5) convergent in front with acutely produced front angles, pronotal disc strongly and evenly punctate; elytral punctures in rows with interspaces minutely punctate; blackish body, each elytron with two orange spots - anterior one behind shoulder which touches base by a branch leaving the humeral angle black, and the second spot before apex; abdomen, tarsi and base of antennae dark reddish. Length - 3.6 - 4.6 mm.

Material examined : 8 ex. India : Arunachal Pradesh, Dibang Valley Distt., Parbuk, 5 km. )-Shantipur, 150 m., 8 ex., 1.x.1991, T.K. Pal, ex. fungusy log.

Distribution : India : Arunachal Pradesh (New record), Uttar Pradesh.

Genus III. Paracoptengis Heller

1918. Paracoptengis Heller, Arch. f. Nat., 84: 54 [Type species : Coptengis nigrolineatus Allard].

6. Paracoptengis brahminicus (Gorham)

1883. Triplatoma brahminica Gorham, Proc. Zool. Soc. London 1883: 80.

1925. Paracoptengis brahminicus : Arrow, Fauna Brit. India, Coleoptera, Clavicornia : 65.

**Diagnosis**: Elongated, convex with slender legs and moderately long antennae, dorsum moderately smooth and devoid of pubescence; head with fine-dense punctures, finely facetted small eyes transversely placed and wide apart, 11 segmented antenna with 3-segmented club rather narrow elongate and flat; prothorax about as broad as long, nearly parallel-sided but a little contracted in front and behind, sides distinctly margined and base nearly straight, pronotum with fine-dense punctures; elytra with narrow base, gently and uniformly rounded sides and truncate apex, costae feebly prominent; dorsum black, each elytron decorated with two very narrow zigzag transverse orange bands extending almost from outer margin to near suture, anterior band little behind elytral base and posterior band before apex; tarsi little dilated and ventrally densely pubescent. Length - 18.2 mm.

Material examined : 1 ex. India : Arunachal Pradesh, Lohit Distt., Zerogaon, 12 km. O-Khupa, 700 m., 27.ii.1990, T.K.Pal, ex. under bark.

Distribution : India : Arunachal Pradesh (New record), Assam.

SubfamilyTRITOMINAETribeENCAUSTINIGenusIV.Aulacochilus Lacordaire

1842. Aulacocheilus Lacordaire, Monog. Erotylines : 242 [Type species : Erotylus javanus (Guerin-Moeneville)].

1871. Aulacochilus Bedel, Trans. ent. Soc. Fr., (5) 1: 271.

7. Aulacochilus janthinus Lacordaire

1842. Aulacochilus janthinus Lacordaire, Monog. Erotylines : 250

1858. Aulacochilus atrocyaneus Motschulsky, Etudes Ent., 7:117.

1871. Aulacochilus sericeus Bedel, Ann. Soc. ent. Fr. (5) 1:282.

1871. Aulacochilus atrocoeruleus Bedel, Ann. Soc. ent. Fr. (5) 1:183.

1925. Aulacochilus janthinus : Arrow, Fauna Brit. India, Coleoptera, Clavicornia : 90.

Diagnosis: Elongate-oval and convex in form with moderately long legs and antennae, dorsum not very shining or smooth; head rather coarsely and densely punctate, coarsely facetted large eyes separated by two and a half times their width, 11-segmented antenna with 3rd segment longer than segments 4 and 5 together and 3-segmented club flat but not much compact; transverse prothorax with sides divergent posteriorly and margins raised, pronotum coarsely punctate but a little finer than the head; entirely bluish-black species with the mouth parts and last tarsal segments little reddish. Length - 5 - 5.6 mm.

Material examined : 3 ex. India : Arunachal Pradesh, Changlang Distt., 3 mile, Miao-Vijoynagar Road, 300 m., 2 ex., 5.iii.1990, T.K. Pal, ex. rotten wood; Papum Pare Distt., Chimpu, Itanagar, 1 ex., 27.v.1992, T.K. Pal, ex. bracket fungi.

Distribution : India : Arunachal Pradesh (New record), Assam; Myanmar; Thailand; Cambodia; Malaysia; Indonesia.

#### 8. Aulacochilus nigrorufus, n. sp.

General appearance (Fig. 2) elongate-ovoid and convex with moderately long legs and antennae, dorsum not very shining and smooth; blackish body and elytra decorated with two reddish-brown spots.

Head broader than long, apical margin of clypeus truncate, fronto-clypeal suture little arcuate; eyes large and coarsely facetted, separated dorsally by twice its length; antennal insertions widely separated; puncturation on vertex moderately coarse and dense and interspaces little wider than punctures, puncturation on clypeus little denser than on vertex. Antenna moderately long and slender, scape moderately large and broadly elongate, pedicel shorter and narrower than scape, segment 3 longer than segments 4 and 5 together, segments 4-8 short and subequal, club 3-segmented and rather compact with segments more or less transverse.



Fig. 1. Ephiscapha nocte n.sp., Dorsal view.

Fig. 2. Aulacochilus nigrorufus n.sp., Dorsal view.

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Prothorax transverse, widest at base, moderately narrowed anteriorly, sides evenly rounded, front margin theply emarginate, front angles produced and nearly right angle; lateral margin feebly raised, pits on either extremity very small; basal margin bi-emarginate with broad median lobe, no prebasal impression; pronotal disc moderately coarsely and densely punctate, puncturation denser on sides than on median part. Scutellum transverse and finely punctate.

Elytra broadly elongate, hardly wider than prothorax at base and closely fitting with it, sides evenly rounded to apex, lateral edges very narrowly flanked and finely bordered; distinct puncture rows visible, 8 in numbers and all becoming obsolete on apical fifth of elytra, intervals of rows bear very fine scattered punctures; each elytron decorated with a reddish-brown irregular but rather distinctly bordered spot occupying greater part of anterior half, spot not reaching either internal or external or basal margin, three incisions on posterior border and two incisions on anterior border of spot.

On ventral side pro- to metrasterna little coarse and rather sparsely punctate, abdomen and especially last ventrite rather densely punctate, entirely blackish.

*Measurements of holotype*: Total length 7.20 mm., width of head across eyes 1.60 mm., length of antenna 2.00 mm., length and width of prothorax 1.72 mm. and 3.04 mm., length and width of elytra 5.52 mm. and 3.72 mm.

Holotype 1 ex., India : Arunachal Pradesh, Dibang Valley District, 3 km. O-Roing, 400 m., 8.ix.1991, T.K. Pal, ex. fungus on log; *Paratypes* 3 ex., date same as holotype (Zoological Survey of India, Calcutta).

Etymology: The name nigrorufus refers to the reddish-brown spots on blackish body, or elytra in particular.

*Comments*: This species shows resemblances with *tricoloratus* Gorham but can be separated by its elytra bear a pair of reddish-brown spots in anterior half whose edges are rather well defined and pattern is somewhat different; the ground colour of the body is darker and black.

### TRIBE TRITOMINI

Genus V. Neotriplax Lewis

1887. Neotriplax Lewis, Ann. Mag. Nat. Hist. (5)20: 60 [Type species : Neotriplax atrata Lewis].

9. Neotriplax rubens (Hope)

1831. Erotylus rubens Hope, Gray's Zool. Misc. : 31.

1876. Amblyopus rubens : Crotch, Cist. Ent., 1:435.

1909. Neotriplax rubens : Arrow, Ann. Mag. nat. Hist. (8) 4 : 196.

1925. Neotriplax rubens : Arrow, Fauna Brit. India, Coleoptera, Clavicornia : 114.

Diagnosis: Broad-oval and convex in form with stout long legs, dorsum smooth and shining; head finely punctate and with finely facetted rather small eyes placed distantly, rather short 11-segmented antenna with 3rd segment about twice as long as 4th and bearing a broad flat compact 3-segmented club, clypeal apex little emarginate; transverse prothorax with sides divergent backward and hind angles nearly right angle, pronotum finely punctate with well developed angle-pores; elytra bear lines of punctures with intervals more minutely punctate, scutellum semicircular; bright orange-red with front of head, antennae and legs blackish. Length - 7.2 mm.

Material examined :1 ex. India : Arunachal Pradesh, West Kameng Distt., Sangti, 1400 m., 9 km. O-Dirang, 23.xi.1990, T.K.Pal, ex. under bark.

Distribution : India : Arunachal Pradesh (New record), Uttar Pradesh, Himachal Pradesh; Nepal ; Viet-Nam.

Genus VI. Tritoma Fabricius

1775. Tritoma Fabricius, Syst. Ent. : 570 [Type species : Tritoma bipustulata Fabricius].

### 10. Tritoma scutigera Arrow

### 1925. Tritoma scutigera Arrow, Fauna Brit. India, Coleoptera, Clavicornia: 140.

**Diagnosis**: Broadly elongate-oval and convex in form with short antennae and legs, dorsum smooth and shining; head finely punctate with finely facetted moderately large eyes placed far apart, 11-segmented antenna with 3-segmented club rather compact and flat; transverse prothorax divergent posteriorly with sides margined and hind angles bluntly obtuse, pronotum similarly puncate as the head; elytra bear lines of punctures with intervals more minutely punctate; all coxae widely separated; dorsum orange-yellow with pronotum, sides and apex of elytra, segment 6 onwards of antenna, and femora and tibiae black. Length 4.2 mm.

Material examined : 2 ex. India : Arunachal Pradesh, Papum Pare Distt., Chimpu, Itanagar, 400 m.,

27.v.1992, T.K. Pal, ex. bracket fungi.

Distribution : India : Arunachal Pradesh (New record), Assam.

Family	ENDOMYCHIDAE	
Subfamily	ENDOMYCHINAE	
Tribe	EUMORPHINI	
•	Electron barry Wahan	

Genus I. Eumorphus Weber

1801. Eumorphus Weber, Observ. Ent. : 31 [ Type species : Erotylus quadrgquttatus Illiger.].

1. Eumorphus quadriguttatus var. pulchripes Gerst

- 1800. Erothlus quadriguattatus Illigar, Wiedemann's Arch.f.Zool. (2) 1:124.
- 1801. Eumorphus sumatrae Weber, Observ. Ent. : 59.
- 1801. Eumorphus imarginatus Fabricius, Syst. Eleuth. 2:11.
- 1857. Erotylus quadriguttatus var. pulchripes Gerst., Archiv. f. Nat. 23: 228.
- 1858. Eumorphus quadriguttatus : Gerst., Mong. Endom. : 110.
- 1858. Eumorphus quadriguttatus var. pubchripes Gerst., Monog. Endom. : 112.
- 1858. Heterandrus quadriguttatus : Guerin-Meneville, Rev. Mag. Zool. (2)10 : 26.
- 1925. Eumorphu quadriguttatus var. pulchripes : Arrow, Fauna Brit. India, Coleoptera, Clavicornia : 305, 306.

Diagnosis : Elongated-oval and moderately convex in form with legs and antennae slender and dorsum moderately shining; head with large eyes obliquely placed, 11-segmented antenna with 3rd segment about twice as long as 4th segment and segments 9-11 forming a flat, borad, abrupt club; transverse prothorax little contracted in posterior third, front angles bluntly produced and hind angles rather acutely, pronotal disc impunctate, lateral margins raised and rather carinate in unbroken manner; humeral angles of elytra little raised above surface, lateral margins narrowly flanked, dorsal surface minutely punctate; blackish body, each elytron with slightly transverse yellow spots - one in both anterior and posterior halves, spots are lateral but not reaching margins, first spot placed behind humerus and second before apex, legs blackish with distal halves of femora brightly reddish-brown. Length 9-11.5 mm.

Material examined :19 ex. India : Arunachal Pradesh, Papum Pare Distt., Itanagar, Chimpu, 400 m. 4 ex., 3.vii.1991, T.K. Pal, ex. Fungusy log; 3 ex., 27.v.1992, T.K.Pal, ex. under bark; Banderdewa, 10 ex., 25.vi.1991, T.K. Pal, ex. fungusy bark; West Kameng Distt., Sangti, 9 km. 0- Dirang, 1450 m., 1 ex., 23.ii.1990, T.K. Pal, ex. under bark; Dibang Valley Distt., Hunli, 1250m., 1 ex., 21.ix.1991, T.K. Pal, ex. under bark; Dibang Valley Distt., Hunli, 1250m., 1 ex., 21.ix.1991, T.K. Pal, ex.

Distribution : India : Arunachal Pradesh (New record), West Bengal (Darjeeling Distt.), Karnataka, Andaman Is. ;Sri Lanka; Myanmar; Indonesia; Malaysia : Viet-Nam.

### 2. Eumorphus assamensis Gerst.

- 1857. Eumorphus assamensis Gerst., Archiv. f. Nat. 23: 229.
- 1858. Eumorphus assamensis Gerst., Monog. Endom. : 121.
- 1858. Eumorphus subguttatus Gerst., Monog. Endom. : 121.
- 1925. Eumorphus assamensis Arrow, Fauna Brit. India, Coleoptera, Clavicornia: 307.

Diagnosis : Elongate-oval and moderately convex in form with legs and antennae slender, dorsum rather dull and impunctate; head with eyes and antennae rather similar to quadriguttatus but the antennal club little narrower; transverse prothrax with lateral margin of pronotum rather irregular or broken, front angles rather sharp and hind angles very acute; lateral margins of elytra very narrow and the apices rounded; sooty black, each elytron with two shining yellow round spots, spots are little elevated above general surface and placed near lateral margins one in both anterior and posterior halves, first spot placed behind humerus and second before apex. Length - 8-9 mm.

Material examined : 2 ex. India : Arunachal Pradesh, West Kameng Distt., Sangti, 9 km. O-Dirang, 1450 m., 1 ex., 23.ii.1990, T.K. Pal, ex. under bark; Papum Pare Distt., Itanagar, Chimpu, 400 m., 1 ex., 27.v.1992, T.K. Pal, ex. under bark.

Distribution : India : Arunachal Pradesh (New record), Nagaland, Meghalaya; Myanmar; Thailand; Viet-Nam; Malaysia; Indonesia.

#### Genus II. Ancylopus Costa

1854. Ancylopus Costa, Fauna del Regno di Napoli, Coleotteri 1 : 14 [Type species : Endomychus melanocephalus Olivier].

#### 3. Ancylopus melanocephalus (Olivier)

1808. Endomychus melanocephalus Olivier, Entom. 6: 1073.

1854. Ancylopus melanocephalus : Costa, Fauna del Regno di Napoli, Coleotteri 1 : 14.

1858. Ancylopus melanocephalus : Gerst., Monog. Endom. : 190.

1886. Ancylopus melanocephalus : Fiori, Bull. Soc. Ent. Ital. 28: 414.

1925. Ancylopus melanocephalus : Arrow, Fauna Brit. India, Coleoptera, Clavicornia : 334.

Diagnosis : Elongated, oblong, subdepressed, dorsum smooth and shining, and antenna, head and 1 finely pubescent; head moderately densely punctate, eyes large, 11-segmented antenna with 3-segment loose and less pronounced club, 3rd antennal segment little longer than 4th and 5th together; transver prothorax broadly emarginated in front and with a conspicuous broad stridulatory membrane, little contract behind middle, pronotum finely punctate, pronotal sides finely bordered and base with a deep marginal str elytral margins narrow and apices rounded, rather closely and densely punctate and punctures confuse antenna, head and legs blackish, pronotum and elytra reddish-brown with blackish spots on elytra as follow basal margin and continued along suture except apical extremity, and two elongated marginal spots - one no middle and other before apex of each elytron. Length 5-5.5 mm.

Material examined : 2 ex. India : Arunachal Pradesh, West Kameng Distt., Moona, 9 km. O-Dirang, 14 m., 1 ex., 25.ii.1990, T.K. Pal, ex. under bark; Sapper, 15. km. O-Dirang, 1500 m., 1 ex., 22.ii.1990, T.K. Palex. decaying wood.

Distribution : India : Arunachal Pradesh; Uttar Pradesh, Bihar, Tamil Nadu; Sri Lanka; Banglades Myanmar: Tibet; China; Japan; New Guinea; Italy; Nigertia; South Africa.

### Family LANGURIIDAE Subfamily LANGURIINAE Genus I. Languriophasma Arrow

1925. Languriophasma Arrow, Fauna Brit. India, Coleoptera, Clavicornia: 203 [Type species: Langur cyanea Hope].

#### 1. Languriophasma laeta Arrow

1925. Languriophasma laeta Arrow, Fauna Brit. India, Coleoptera, Clavicornia: 204.

1979. Languriophasma laeta : Sengupta and Mukherjee, Rec. zool. Surv. India 75 : 337.

Diagnosis : Long, Slender, moderately convex with rather long legs and antennae, dorsum smooth a very shining; head with finely facetted moderately large eyes, not dilated in front of eyes, finely and dense punctate, 11-segmented antenna with 4-segmented fairly broad and loose club; a little elongate prothor with front angles broadly rounded, contracted behind with hind angles nearly right angle, pronotal be moderately impressed and punctured and lateral fovae rather indistinct, pronotal disc finely and little le closely punctured than head; elytral shoulders prominent and sides gradually narrowed posteriorly, apic separately rounded, elytral punctures strong and in regular rows; blackish-brown with prothorax brig reddish-brown and elytra shining dark blue. Length - 4.5 mm.

Material examined : 1 ex. India : Arunachal Pradesh, West Kemeng Distt., Tipi Forest, 8 km. ( Bhalukpong, 230 m., 3.ii.1990, T.K. Pal, ex. bush.

Distribution : India : Arunachal Pradesh and North-Western India.

*Remarks*: The specimens on which Arrow (1925) described this species bear 'no exact' locality-nan and the material preserved in the Oxford Museum as presumed by him were taken probably from No Western India.

### Genus II. Anadastus Gorham

1887. Anadastus Gorham, Proc. zool. Soc. London 1887 : 362 [Type species : Languria cambodiae Crotch]
2. Anadastus scutellatus (Crotch)

1876. Languria scutellata Crotch, Cist. Ent. 1: 388.

1896. Anadastus nigrinus Gorham (sensu nec. Wiedemann). Ann. Mus. civ. Genova 36: 270.

1925. Anadastus scutellatus : Arrow, Fauna Brit. India, Coleoptera, Clavicornia : 234.

Diagnosis : Elongated, somewhat parallel-sided with moderately long legs and antennae, dorsum smoo and shining; head with finely facetted moderately large eyes, large mandibles partially exposed, clype margin bidentate in middle, densely and moderately coarsely punctate, 11-segmented antenna with segmented narrow long club; feebly transverse prothorax with front angles rounded, contracted behind w acute hind angles, pronotal punctures a little sparser than those of head, lateral fovae divergent at prono base; elytra deeply striate-punctate with prominent shoulders, sides straight and apex uniformly rounde deep reddish-brown species with a greenish metallic black suffusion at elytral apex, legs and antenn reddish-black with femora and club more darker. Length - 9.1 mm. Material examined : 1 ex. India : Arunachal Pradesh, Changlang Distt., 3 mile, Miao-Vijaynagar Road, 100 m., 5.iii.1990, T.K. Pal, ex. vogetable debris.

Distribution : India : Arunachal Pradesh (New record), Assam; Bhutan; Thailand; Cambodia; Viet-Nam; Aalaysia; Indonesia.

# Subfamily CRYPTOPHILINAE

Genus III. Cryptophilus Reitter

874. Verh. zool.-bot. Ges. wien. 14: 381 [Type species : Cryptophagus integer Heer].

### 3. Cryptophilus integer (Heer)

838. Cryptophagus integer Heer, Fauna Helvetia 1: 426

874. Cryptophagus integer : Reitter, Verh. zool.-bot. Ges. Wien. 14: 381.

971. Cryptophagus integer : Sengupta & Crowson, Mem. zool. Surv. India 15 (2) : 24.

Diagnosis: Body elongate-ovoid, moderately depressed, head and pronotum punctate-pubescent and lytral puncture in regular rows; head with prominent fronto-clypeal suture, 11-segmented antenna with 3-egmented loose club; prothorax little transverse with sides gently rounded, anterior and posterior angles not ronounced, transverse scutellum impunctate; elytral epipleura narrow and complete upto apex; species eddish-brown. Length 2.3 - 2.5 mm.

Material examined : 4 ex. India : Arunachal Pradesh, West Kameng Distt., Elephant point, 15 km. Ohalukpong, 250 m., 4 ex., 1.xii.1990, T.K. Pal, ex. under bark.

Distribution : Many parts of World through transport of food grains (Aitken, 1975).

#### **SUMMARY**

56 examples of clavicorn beetles of the families Erotylidae, Endomychidae and Languriidae collected om Arunachal Pradesh are worked out. These represent 10 species under 6 genera of Erotylidae (Including new species viz., Episcapha nocte and Aulacochilus nigrorufus), 3 species under 2 genera of ndomychidae, and 3 species under 3 genera of Languriidae, with several new distributional records from runachal Pradesh as well as India.

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