

# Notes on a Collection of Dermaptera from Darjeeling Dist. (India) with the Description of a New Species

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(With two text figures)

## INTRODUCTION

The present paper is based on a small collection of Dermaptera from Darjeeling Dist. (W. B.). It includes the description of a new species. The occurrence of *Allodahlia coriacea* subsp. *signata* Bey-Bienko, hitherto known from China (Yunnan), in Darjeeling is of interest but not unexpected. *Forficula planicollis* Kirby has been redescrined in detail on the basis of a large series.

The Dermaptera fauna of the area appears to be quite rich as 39 species belonging to 20 genera have so far been reported. It is interesting to note the preponderance of the Palaearctic genus *Forficula* L. which is represented by 6 species.

Following is the systematic list of species known from the area.

Superfamily PYGIDICRANOIDEA  
Family PYGIDICRANIDAE  
Subfamily PYGIDICRANINAE

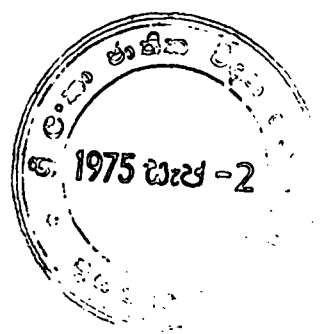
- 1. *Cranopygia picta* (Guérin-Méneville)
- 2. " *eximia* (Dohrn)

Family DIPLATYIDAE  
Subfamily DIPLATYINAE

### Rufescens Group

- 3. *Diplatys rufescens* (Kirby)
- 4. " *siva* Burr
- 5. " *rileyi* Hincks
- 6. " *bidentatus* Hincks
- 7. " *bhowmiki* sp.n.

Superfamily LABIOIDEA  
Family CARCINOPHORIDAE  
Subfamily CARCINOPHORINAE



8. *Euborellia annulipes* (Lucas)

9. „ *femorialis* (Dohrn)

Family LABIIDAE

Subfamily SPONGIPHORINAE

10. *Homotages feae* (Bormans)

Subfamily LABIINAE

11. *Labia fulleri* Ramamurthi

12. *Chaetospania kurseongae* Hebard

Superfamily FORFICULOIDEA

Family LABIDURIDAE

Subfamily LABIDURINAE

13. *Nala lividipes* (Dufour)

14. „ *nepalensis* (Burr)

15. *Labidura riparia* (Pallas)

16. *Forcipula decolyi* Bormans

17. „ *trispinosa* (Dohrn)

Family CHELISOCHIDAE

18. *Proreus cunctator* Burr

19. *Lamprophorella kervillei* (Burr)

20. *Hamaxas melanocephalus* (Dohrn)

Family FORFICULIDAE

Subfamily ANECHURINAE

21. *Allodahlia sabriuscula* (Serville)

22. „ *coriacea* subsp. *signata* Bey-Bienko

23. „ *macropyga* (Westwood)

24. „ *ahrimanes* (Burr)

## Subfamily FORFICULINAE

25. *Forficula schlagintweiti* (Burr).  
 26. „ *mogul* Burr  
 27. „ *beelzebub* (Burr)  
 28. „ *interrogans* Burr  
 29. „ *planicollis* Kirby  
 30. „ *genitalia* Kapoor

## Subfamily EUDOHRNINAE

31. *Eudohrnia metallica* (Dohrn)  
 32. *Kosmetor temora* (Burr)  
 33. „ *brahma* (Burr)  
 34. „ *vishnu* (Burr)  
 35. „ *josephi* Kapoor

## Subfamily OPISTHOCOSMINAE

36. *Liparura punctata* Burr .. ..  
 37. *Tinomenus lugens* (Bormans) .. ..  
 38. *Eparchus insignis* (Haan)  
 39. *Cordax forcipatus* (Haan)

## SYSTEMATIC ACCOUNT

Superfamily PYGIDICRANOIDEA  
 Family DIPLATYIDAE  
 Subfamily DIPLATYINAE

*Diplatys bhowmiki* sp. n.

(Fig. 1. A—F)

*Material examined* :— Jorpokri, 2 km. S. of Rest House, *Holotype* ♂, *Paratypes* 1 ♀, 3 nymphs, 24.V.1971, 2200 m. (A.R. Bhowmik); all in the collections of the Zoological Survey of India, Calcutta.

*Description* : Male : Size medium, build slender, pubescent; general colour testaceous, head and pronotum shaded with black in parts.

Head pentagonal, transverse, sutures obsolete, frons tumid sharply differentiated from occiput, a little contracted posteriorly with margin emarginate, post-ocular carina obsolete. Eyes about as long as genae. Antennae 18-segmented, typical of the genus. Pronotum slightly longer than broad, slightly contracted posteriorly, sides straight, hind margin briefly rounded, median sulcus faint; prozona tumid and metazona flat. Elytra well developed, convex posteriorly; a small triangular scutellum visible. Wings normal. Legs with femora strongly carinate; tibia long and slender. Abdomen long, slender, gently expanded posteriorly, sides of segments rounded. Ultimate tergite transverse, median sulcus faint, hind margin trisinate with angles projecting. Penultimate sternite deeply tri-sinate, lobes of median sinuation obtuse. Forceps stout, almost straight, depressed with a triangular depression at base above, contiguous, tapering with apices pointed and gently hooked; internal margin faintly crenulate. Genitalia (Fig. 1 D—E).

Female : As male but slightly larger in size; head more or less square with sides parallel, hind margin of elytra obliquely truncate. Abdominal segments of uniform width; ultimate tergite comparatively narrower posteriorly.

*Measurements (in mm.) :—*

			Holotype	Paratype
			♂	♀
Length of body	..	..	18.6	26.6
Length of forceps	..	..	2.0	2.5

*Remarks :—* This species belongs to *Rufescens* Group (Hincks, 1955, p. 66) and comes close to *Diplatys bidentatus* Hincks from Kurseong but differs mainly in having the lobes of median sinuation of penultimate sternite obtuse and quite different virga which is U-shaped and its arms provided with small diverticula laterally near apex.

***Diplatys* sp.**

*Material examined :—* Kurseong, Municipal School Compound, 1 nymph, 2.v.1971, 1480 m. (A. R. Bhowmik).

*Remarks :—* Pronotum is almost rounded. Segmented cerci of right side only is present, of which proximal segment is longest.

***Diplatys* sp.**

*Material examined :—* Sokia Pokri, 1 km. N. on way to Ghoom, 12 nymphs, 17.v. 1971, 2128 m. (A. R. Bhowmik).

*Remarks :—* These nymphs are at various stages of development. In the absence of adult it is not possible to identify them up to specific level.

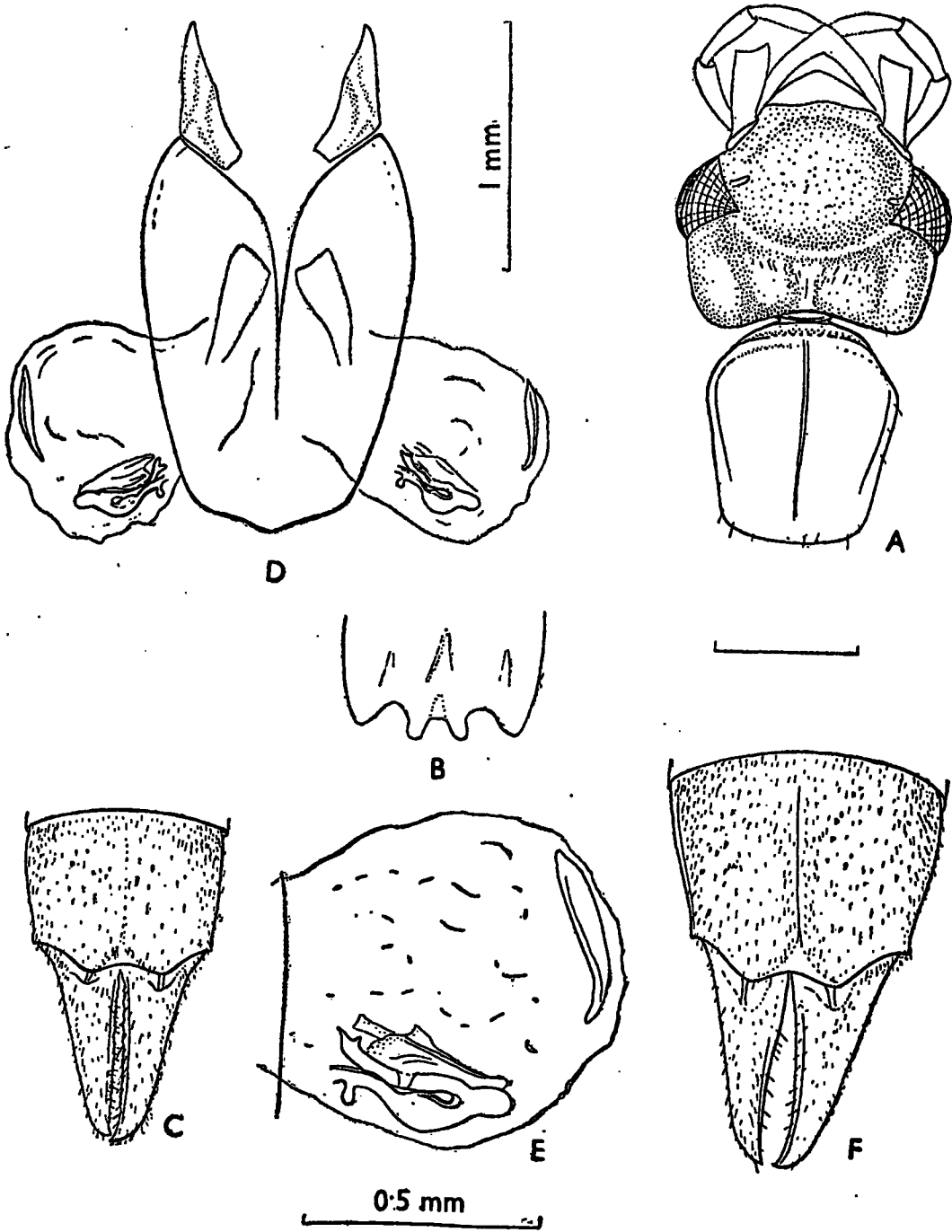


Fig. 1

**Euborellia annulipes** (Lucas)

1847. *Forficesila annulipes* Lucas, *Ann. Soc. Ent.*, France, 5 (2), p. 84 (Sex ?) "Jardin des Plantes" Paris (Introduced).

*Material examined* :— Kurseong, Subedar Basti, Dhobi Kholā, 1 ♀, 30.iv.1971, 1459 m. (A. R. Bhowmik); Daw Hill, 17 nymphs, 27.xii.1970, 1810 m.; Kalimpong, Govt. Seed Farm, 1 ♀, 10.i.1971, 1030 m. (J. M. Julka).

*Distribution* :— Cosmopolitan.

Family LABIIDAE  
Subfamily SPONGIPHORINAE

**Chaetospania** sp.

(Fig. 2 A)

*Material examined* :— Kurseong, Daw Hill, 1 ♀, 27.xii.1970, 1810 m. (J. M. Julka).

*Remarks* :— Head, pronotum, elytra and wings black; antennae blackish brown; abdomen black but segments 4th-6th reddish in middle; ultimate tergite and forceps reddish; legs clear yellow, finely and sparsely pubescent.

Pygidium small, gently narrowed apically with margin bisinuate. Forceps as seen in fig. 2 A.

It has close resemblance to *Chaetospania thoracica* (Dohrn) but the general colour, pygidium and forceps are different.

**Homotages feae** (Bormans)

1888. *Anechura feae* Bormans, *Ann. Mus. Civ. Gen.*, 6 (2), p. 445 (Tenasserim, Thagatá).

*Material examined* :— Darjeeling, Lloyd's Botanic Garden, 1 ♂, 3 ♀♀, 26.v.1971 2060 m. (A. R. Bhowmik); 2 ♀♀, 17 nymphs, 1.i.1971; 1♀, 2 nymphs, 4.i.1971, 3060 m., (J. M. Julka).

*Distribution* :— India, Nepal and Burma.

Superfamily FORFICULOIDEA  
Family LABIDURIDAE  
Subfamily LABIDURINAE

**Forcipula decolyi** Bormans

1900. *Forcipula decolyi* Bormans, *Ann. Mus. Civ., Gen.*, 20 (2); 444 (♂, ♀; Haveri, British New Guinea).

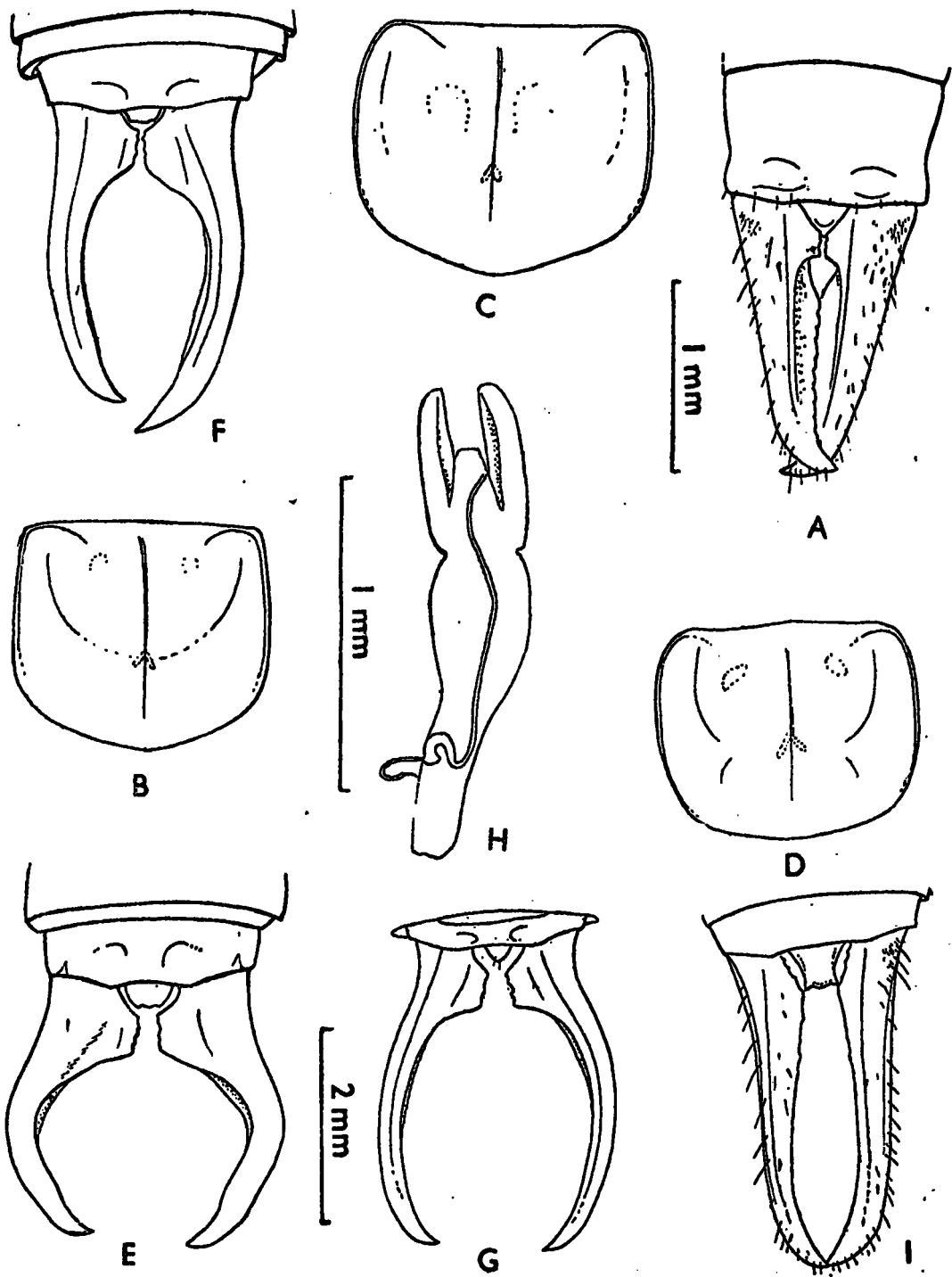


Fig. 2

*Material examined*:— Kurseong, in and around Singell Tea Estate, 1 ♂, 1 ♀, 4 nymphs, 1.v.1971, 1435 m.; Municipal School Compound, 1 ♀, 2.v.1971, 1480 m. (*A. R. Bhowmik*), Dhobi Khola Stream, 3 ♀ ♀, 3 nymphs, 25. xii. 1970; Kalimpong, 1½ km. on way to Siliguri, 1 ♀, 9.i.1971, 1100 m. (*J. M. Julka*); Matandi, in and around Bandi Kola Stream, 1 ♂, 2 ♀ ♀, 1 nymph, 26.iv.1971, 1242 m. (*A. R. Bhowmik*).

*Distribution*:— India, Nepal, Sikkim and New Guinea.

### *Labidura riparia* (Pallas)

1773. *Forficula riparia* Pallas, *Reise, Russ. Reichs*, pt. II, p. 727 (Shores of Irtysch River, Western Siberia).

*Material examined*:— Kurseong, Subedar Basti, Dhobi Khola, 1 ♂, 30.iv.1971, 1459 m. (*A. R. Bhowmik*), Kalimpong, Govt. Seed Farm, 1 ♂, 3 ♀ ♀, 1 nymph, 10.i.1971, 1030 m. (*J. M. Julka*).

*Distribution*:— Cosmopolitan.

Family	FORFICULIDAE
Subfamily	ANECHURINAE

### *Allodahlia coriacea* subsp. *signata* Bey-Bienko

1959. *Allodahlia coriacea* subsp. *signata* Bey-Bienko, *Ent. Obozor*, 38, p. 620 (♂, ♀, China, Yunnan).

*Material examined*:— Kurseong, near Dhobi Khola Stream, 1 ♀, 25.xii.1970, 1459 m. (*J. M. Julka*).

*Remarks*:— In having the yellow wings it agrees well with the description of subspecies.

*Distribution*:— Originally described from China (Yunnan), it is being reported from India for the first time.

Subfamily FORFICULINAE

### *Forficula beelzebub* (Burr)

1900. *Chelosoches beelzebub* Burr, *Ann. Soc. Ent.*, Belgique, 34, p. 51 (♂, India, Bengal, Kurseong).

*Material examined*:— Sukia Pokri, 1 km. N. on way to Ghoom, 1 ♂, 1 nymph, 17.v.1971, 2128 m.; Ghum Bhanjang, Hima Falls, 1 nymph, 27.v.1971, 2180 m. (*A. R. Bhowmik*); Darjeeling, Lloyd's Botanic Garden, 1 ♀, 1.i.1971, 2060 m. (*J. M. Julka*).



*Remarks* :— The male specimen before us is entirely dark blackish brown in colour and the pygidium is not quite distinct.

*Distribution* :— India and Nepal.

### *Forficula planicollis* Kirby

(Figs. 2 B—1)

1891. *Forficula planicollis* Kirby, *J. Linn. Soc. Zool. London.*, 23; p. 526 (♀; North India).  
 1904. *Forficula planicollis*: Burr, *Trans. ent. Soc. Lond.*, p. 320 (♂, ♀; India, Darjeeling).  
 1904. *Forficula ambigua* Burr, *Trans. ent. Soc. Lond.*, p. 321 (♂, ♀; Darjeeling) Syn. n.  
 1965. *Forficula bhatnagari* Gangola, *Entomologist*, p. 229, figs. 3-8 (♂, Naini Tal) Syn. n.  
 1972. *Forficula gardneri* Kapoor, Bharadwaj and Banerjee *Bull. Ent.*, 12(1), p. 37, figs. 9-11 (♂, ♀; Debrepani, 6000' Darjeeling, Bengal) Syn. n.

*Material examined* :— Jorpokri D. I. Fund Rest House, 2 ♂ ♂, 22.v.1971, 2220 m.; Ghum Bhanjang, Forest Nursery, 1 ♂, 28.v.1971; Gorabari, Sonada, 3 ♂ ♂, 1 ♀, 16 nymphs, 13.v.1971, 1952 m.; pond at Pochang, 1 ♂, 9.v.1971, 1815 m. around Kan Khola, 4 ♂ ♂, 3 ♀ ♀, 24 nymphs, 10.v.1971, 1969 m., in and around Tibetan Naya Basti, 1 ♂ 3 ♀ ♀, 3 nymphs, 8.v.1971, 1967 m., 1 ♂ 2 nymphs, 11.v.1971, 1990 m. (A. R. Bhowmik).

General colour shining blackish brown to testaceous black or yellow. Head dark reddish or reddish-black. Antennae blackish brown. Pronotum generally brownish black or sometimes with lateral margin testaceous yellow. Elytra and wings black or testaceous black. Abdomen black or reddish black. Forceps black or testaceous black.

♂ : Head smooth, about as long as broad, frons tumid, sutures obsolete or distinct, hind margin straight. Eyes black, smaller than genae in length. Antennae 12-segmented, 1st segment club-shaped, equal to 2nd and 3rd together; 4th slightly shorter than 3rd; 5th longer than 3rd, remaining long, narrowing at base. Pronotum generally weakly transverse, occasionally about as long as broad, anterior margin and sides straight, gently contracted posteriorly, hind margin rounded, median sulcus fairly distinct or faint, prozona weakly raised, not well differentiated from flat metazona. Elytra and wings well developed, smooth, former with hind margin truncate. Abdomen finely punctulate, gently dilated in middle or parallel sided. Ultimate tergite transverse, sparsely punctulate, hind margin emarginate in middle, faintly tumid above the roots of forceps. Penultimate sternite obtusely rounded posteriorly. Pygidium rounded or obtusely rounded with two small tubercles laterally towards apex thus making it bisinuate (in f. *microlabia*) or pointed (in f.

macrolabia). Forceps (in f. microlabia) stout, strongly bowed, dilated near base for one fourth to one fifth of the total length with inner margin finely crenulate; (in f. macrolabia) branches tend to elongate, very broadly curved with apices pointed. Genitalia as seen in fig. 2 H.

♀ : Agrees with male in most characters except ultimate tergite slightly narrowed posteriorly and forceps simple and straight.

*Measurements* (in mm.) :—

	♂♂	♀♀
Length of body ..	7.1—9.5	6.4—10.8
Length of forceps ..	2.6—3.0	1.5—2.8

*Distribution* : This species appears to be widely distributed in India all along the Himalayas from North East to North West. Also known from Nepal, Sikkim, Bhutan, China (Yunnan) and Burma.

*Remarks* : Kirby (1891) described *F. planicollis* on a female from North India. Subsequently, Burr (1904) described for the first time the male of this species from Darjeeling. His descriptions (1904, 1910) provide that pygidium is indistinguishable and forceps with inner margin of basal dilation straight and unarmed, which does not seem to be correct as the specimens determined by him now present in the National collections of the Zoological Survey of India, Calcutta, show contrary characters.

The *Forficula ambigua* Burr (1904) based on 2 ♂♂ and 3 ♀♀ from Darjeeling is nothing but the macrolabic form of the species.

As can be seen from the above description of *F. planicollis* Kirby, based on a large series, it varies greatly in general colouration of different body parts, shape of pygidium and forceps and to a lesser degree in pronotum. The forceps show polymorphism, a common feature in Dermaptera, representing micro- and macrolabic forms with various intermediate stages as well.

*F. bhatnagari* Gangola (1965) from Nainital (U.P.) and *F. gardneri* Kapoor et al. (1972) from Darjeeling (W.B.) both appear to be identical as far as their descriptions are concerned and both are considered as synonyms of *F. planicollis* Kirby as these show only minor differences which fall well within the variational limits of the latter.

Subfamily OPISTHOCOSMINAE

***Eparchus insignis* (Haan)**

1842. *Forficula insignis* Haan, *Verh. Nat. Gesch. Nederl. Overz. Bezitt.*, Orth., p. 243, pl. 23, fig. 14 (♂, ♀; Java).

*Material examined*:— Kalimpong, on way to Dr. Graham's Home, 1 ♀, 8.i.1971, 1515 m.; P.W.D. Inspection Bungalow Compound, 1 ♂, 7.i.1971, 1234 m.; Kurseong (near Dhobikhola Stream), 1 ♀, 25.xii.1970, 1459 m. (J. M. Julka).

*Distribution*:— Widely distributed on the Asiatic mainland as well as throughout the Malay Archipelago as far as Celebes and Hainan.

### Cordax sp.

*Material examined*:— Kurseong, Daw Hill 1 ♀, 27.xii.1970, 1810 m. (J. M. Julka).

*Remarks*:— This female comes close to *Cordax forcipatus* (Haan) but the elytra are dull brown and faintly tuberculated.

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### EXPLANATION OF FIGURES

- Fig. 1. *Diplatys bhowmiki* sp. n. ♂ : A. Head and pronotum B. Hind portion of penultimate sternite. C. Ultimate tergite and forceps. D. Genitalia. E. A portion of distal lobe. ♀ : F. Ultimate tergite and forceps. (Figs. A—C, F same scale.)
- Fig. 2. *Chaetospania* sp. ♀ : A. Ultimate tergite and forceps. *Forficula planicollis* Kirby ♂ : B—D. pronotum. E—G, Ultimate tergite and forceps. H. Genitalia. ♀ : I. Ultimate tergite and forceps. (Figs. A—D ; E—G & I same scale.)

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