

## ON A NEW GENUS AND THREE NEW SPECIES OF DERMAPTERA FROM INDIA WITH NOTES ON *EPILABIS* BURR

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### ABSTRACT

The present paper deals with two new species belonging to the genus *Epilabis* Burr. A key to the identification of all the known Indian species has been given. Besides, a new genus and species under the subfamily Opithocosmiinae have been described.

### INTRODUCTION

The material upon which the present study is based, was collected by Mr. P. S. Nathan and placed at author's disposal through the kindness of Dr. I. J. Cantrall, Museum of Zoology, Ann Arbor (U.S.A.).

All types are deposited in the Museum of Zoology, Ann Arbor (U.S.A.) except otherwise as stated.

### SYSTEMATIC ACCOUNT

Super family	LABIOIDEA
Family	CARCINOPHORIDAE
Subfamily	CARCINOPHORINAE

### Genus *Epilabis* Burr

*Epilabis* Burr, 1915. *J. R. micr. Soc.*, 1915 : 348

The genus *Epilabis* was erected by Burr (1915) for the reception of *Euborellia penicillata* Borelli (1911) as the type and *Euborellia sisera* Burr (1914). Recently, Ramamurthi and David (1973) have divided this genus by erecting the subgenus *Cryptolabis* for *E. (C.) sisera* (Burr) as the type and their's two new species, viz., *E. (C.) ramachandrai* and *E. (C.) vallakadaiensis* which lacked apical tuft of

setae on the posterior margin of penultimate sternite, although they possessed heterogenous parameres. In my opinion their's this action does not seem to be justified when the generic differentiation in the subfamily Carcinophorinae is primarily based on the shape of male genitalia, especially parameres. Therefore, it is proposed to retain the genus *Epilabis* in the old sense of Burr (*l.c.*) with a little modification and the subgenus *Cryptolabis* is treated here as its synonym.

The genus *Epilabis* can now be redefined as follows, to accomodate two new species described in the present paper : parameres longer than broad, almost of uniform width throughout except at extreme apices gently narrowed with tip somewhat rounded, external margin straight and apical angles rounded, inner margin sinuate or convex, distal lobes with chitinous rods, virga may be present or absent.

*Epilabis (Cryptolabis) ramachandrai* is transferred to the genus *Apolabis* Burr (1915) on the basis of shape of parameres which are long and tapering apically with tip acuminate, and broadest near base. The shape of parameres in *Epilabis (Cryptolabis) vallakadaiensis*

suggests its inclusion in *Gelotolabis* Burr. The genera *Epilabis* and *Gelotolabis* are very similar but the latter can be very easily differentiated in having the apical external angles of parameres a little projecting with apex pointed and produced in the form of a snout.

#### KEY TO THE SPECIES (ON ♂♂ ONLY)

1. Head with a deep cavity .....  
..... *E. sisera* (Burr)  
Head without a cavity... .. 2
2. Elytra present as narrow ovate flaps on the sides of mesonotum ..... *E. burri* Srivastava  
Elytra abbreviated, anal angles rounded off, showing a portion of mesonotum and in apical half meeting along the sutural margin... .. 3
3. Penultimate sternite with a tuft of hairs in the middle of posterior margin.... .. 4  
Penultimate sternite without a tuft of hairs in the middle of posterior margin. ... 6
4. Posterior margin of penultimate sternite in middle acute..... 5  
..... *E. emarginatus* Ramamurthi and David  
Posterior margin of penultimate sternite rounded or slightly emarginate in middle
5. Posterior margin of penultimate slightly emarginate in middle. .. ..  
..... *E. penicillata* (Borelli)  
Posterior margin of penultimate sternite rounded in middle | .....  
..... *E. analis* Ramamurthi and David
6. Body finely punctate : sides of abdominal segments obtuse, rugosely punctate ; preputial sacs without a chitinous rod ; virga not visible ..... *E. punctata* sp. n.  
Body smooth (except abdomen, finely punctate) ; sides of abdominal segments acute, with a longitudinal carina on segments 5th to 7th only ; preputial sacs with a chitinous rod ; fine virga also visible ..... *E. nilgiriensis* sp. n.

#### *Epilabis penicillata* (Borelli)

*Euborellia penicillata* Borelli, 1911. *Bol. Musei. zool. Anat. comp., Torino*, : 3 (♂ ♀ Coonoor),

*Epilabis penicillata* : Burr, 1915, *J. R. micr. Soc.*, 1915 : 539.

*Material examined* : Tamil Nadu, Nilgiri Hills, Naduvatam, 6000', 74 ♂♂, 78 ♀♀, 49 nymphs, iv & v. 1958.

*Remarks* : Judging from the present

material and the known records it appears to be quite common in South India.

#### *Epilabis analis* Ramamurthi and David

*Epilabis analis* Ramamurthi and David, 1973,, *Zool. Anz.*, 190, (516) : 43; (♂, ♀ India Nilgiris, Ponniah, 2100 m.)

*Material examined* : Tamil Nadu, Nilgiri Hills, Naduvatam, 6000', 1 ♂, ...v. 1958.

#### *Epilabis sisera* (Burr)

(Figs. 1-A-C)

*Euborellia sisera* Burr, 1914. *Rec. Indian Mus.*, 10 : 286 (♂, India, Anamalai Hills).

*Epilabis sisera* : Burr, *J. R. micr. Soc.* 1915 : 539

*Material examined* : Tamil Nadu, Anamalai Hills, Cinchona, 3500', ♂♂, 13 ♂♂, 7 nymphs, iii. 1956.

*Remarks* : The present specimens are the topotypes of the species. Colour ranges from blackish to reddish brown. The penultimate sternite is triangular, slightly incrassate and obtusely rounded posteriorly and provided with a faintly raised, median stripe extending from middle to apex.

#### *Epilabis nilgiriensis* sp.n.

(Fig. 1, D-I)

*Material examined* : Tamil Nadu, Nilgiri Hills, Naduvatam, 6000', *Holotype* ♂, paratypes 9 ♂♂, 10 ♀♀, 2 nymphs, iv. & v. 1958. Paratype 2 ♂♂, 2 ♀♀ with the author at the Zoological Survey of India, Calcutta.

General colour blackish brown. Legs testaceous brown.

♂ : Head triangular, convex, smooth, sutures fine but distinct ; eyes much smaller than genae in length ; antennae 17-segmented, 1st equal to 2nd to 4th together ; 3rd slightly longer than 4th and equal to 5th, remaining segments long, slender, gently narrowed basally,

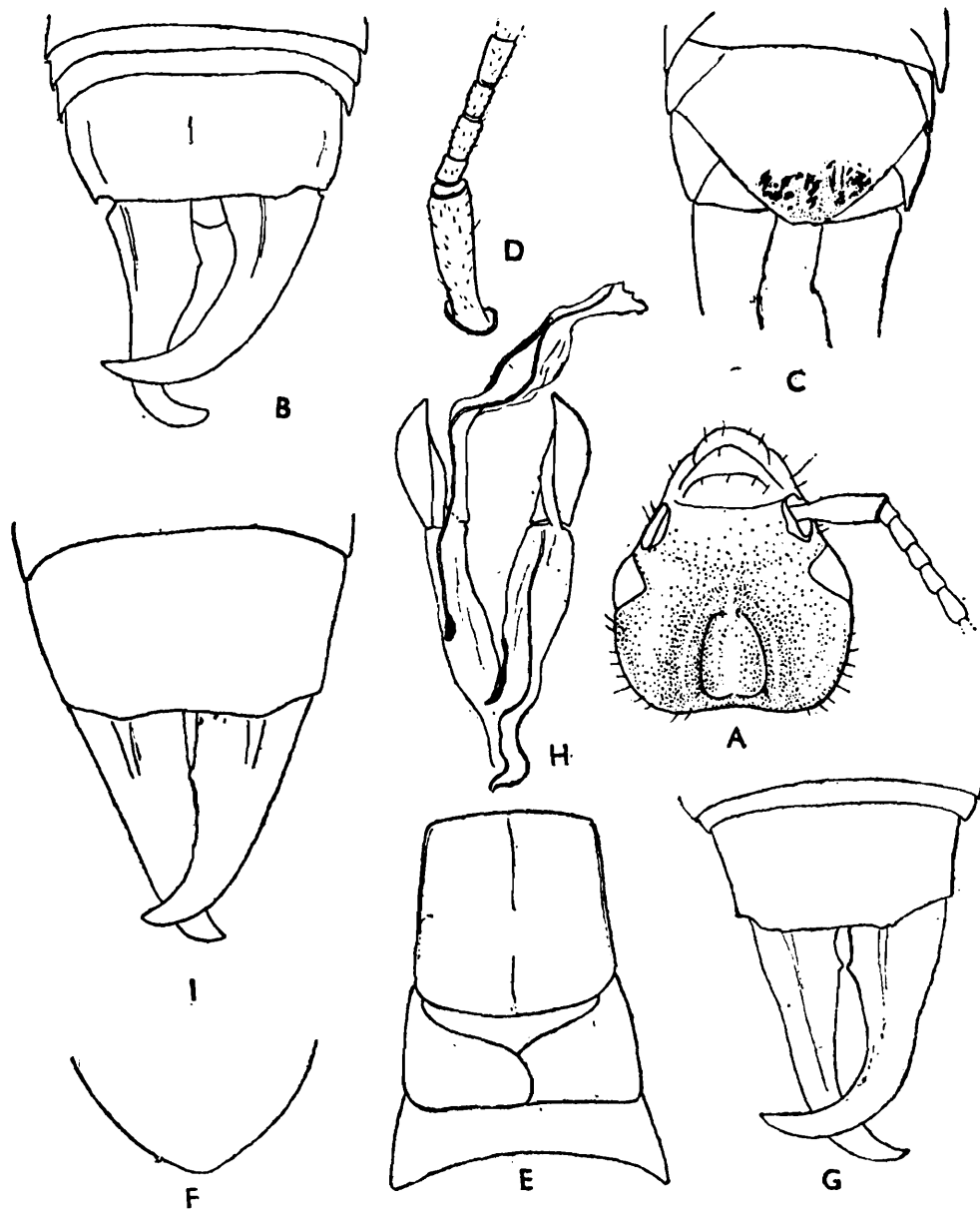


Fig. 1. A-C. *Epilabis sisera* (Burr) ♂, A. Head, B. Ultimate tergite and forceps, C. Penultimate sternite ; D-I *Epilabis nilgiriensis* sp. n. Holotype ♂, D. A few basal antennal segments, E. Thorax, F. Posterior margin of penultimate sternite, G. Ultimate tergite and forceps, H. Genitalia, ♀ : I. Ultimate tergite and forceps.

gradually increasing in length distally. Pronotum as long as broad, anterior and lateral margins straight, flat, posteriorly subtruncate and gently widened, median sulcus faint ; prozona weakly raised. Elytra same as in *E. penicillata* (Borelli). Metanotum transverse, finely punctulate, broadly emarginate posteriorly. Abdomen finely punctulate, en-

larged in middle, sides of segments acute, carinate on 5th to 7th only. Ultimate tergite sparsely punctate, transverse, gently contracted posteriorly, hind margin faintly emarginate, median sulcus distinct in anterior half only. Penultimate sternite obtusely rounded posteriorly, manubrium twice as long as the sternite and dilated at apex. Forceps sub-

contiguous, trigonal at base, gradually tapering, left branch almost straight in basal two thirds, afterwards curved, right branch strongly curved at about middle and crossing above the left, apices pointed, gently hooked, internally with a faint tooth at about basal one fourth, otherwise unarmed. Genitalia (Fig. 1,H).

♀ : As male except that the sides of abdominal segments convex and ecarinate, forceps somewhat symmetrical.

*Measurements* (in mm.)

	Holotype	Paratypes	
	♂	♂♂	♀♀
Length of body	13.6	12.7—18.3	12.5—18.0
Length of forceps	2.9	2.7—3.0	2.5—2.6

***Epilabis punctata* sp. n.**  
(Fig. 2, A-F)

*Material examined* : Tamil Nadu, Yercaud, Shevroy Hills, 4500' Holotype ♂, paratypes 12♂♂, 26♀♀ 75 nymphs, 1 & ii.1955.

Paratypes 2♂♂, 2♀♀, 4 nymphs with the author at Zoological Survey of India, Calcutta.

General colour dull blackish to reddish brown. Legs testaceous yellow. Finely punctate all over the body including elytra.

♂ : Head triangular, longer than broad, sutures faint, hind margin straight ; eyes much smaller than genae in length ; antennae 17-segmented, stout, 3rd longer than 4th & 5th but equal to 6th, remaining gradually increasing in length distally. Pronotum finely punctate, slightly broader than long, anteriorly straight, laterally straight but diverging posteriorly, hind angles well rounded and margin subtruncate. Elytra and metanotum same as in the preceding species. Abdomen convex, very slightly enlarged in middle, sides of segments obtuse, ecarinate, often rugosely punctate.

Ultimate tergite transverse, gently contracted posteriorly, sparsely punctate, median sulcus deep, hind margin straight, laterally oblique gently sinuate. Penultimate sternite triangular, obtusely rounded posteriorly, finely punctate, pubescent along the posterior margin. Forceps weakly asymmetrical, remote and trigonal at base with a ridge in basal one fourth only, afterwards depressed tapering, right branch more curved than the left, apices gently hooked and pointed, inner margin with a faint tooth at basal one fourth only. Genitalia (Fig. 2, E)

♀ : Agrees with male in most characters except that the sides of abdominal segments rounded and forceps almost symmetrical.

*Measurements* : (in mm.)

	Holotype	Paratypes	
	♂	♂♂	♀♀
Length of body	14.5	14.2—17.7	14.1—19.3
Length of forceps	3.4	3.3—3.5	3.3—4.0

*Remarks* : This species resembles closely with *Paralabis greeni* (Burr) in having the whole body punctate but the shape of parameres are quite distinctive. The latter was originally described from Sri Lanka and probably it does not occur in India. Perhaps all other records of *E. greeni* from India (Burr, 1914, Hebard, 1923) are referable to the described species.

Subfamily OPISTHOCOSMINAE

***Parasondax* gen. n.**

Build slender. Antennae 13-segmented, long and slender ; eyes smaller than genae in length ; pronotum anteriorly as wide as head, all margins straight except hind margin lightly rounded. Elytra present as narrow, ovate lateral flaps on mesonotum. Wings absent. Legs long and slender, hind metatarsal segment slightly longer than 3rd ; 2nd briefly rounded. Abdomen convex,

greatly dilated in middle, tubercular folds on 3rd tergite weakly and 4th strongly developed. Forceps long, slender, contiguous and straight at base for a short distance with or without vertical tooth, turned backward ; afterwards branches strongly bowed.

Type-Species : *Parasondax cantralli* sp.n.

*Remarks* : This genus comes very close to *Sondax* Burr (1910) but differs in having abbreviated elytra and hind metatarsal segment slightly longer than the 3rd. The genus *Synotus* Burr, however, can be also compared with the described genus but the shape of elytra is quite different.

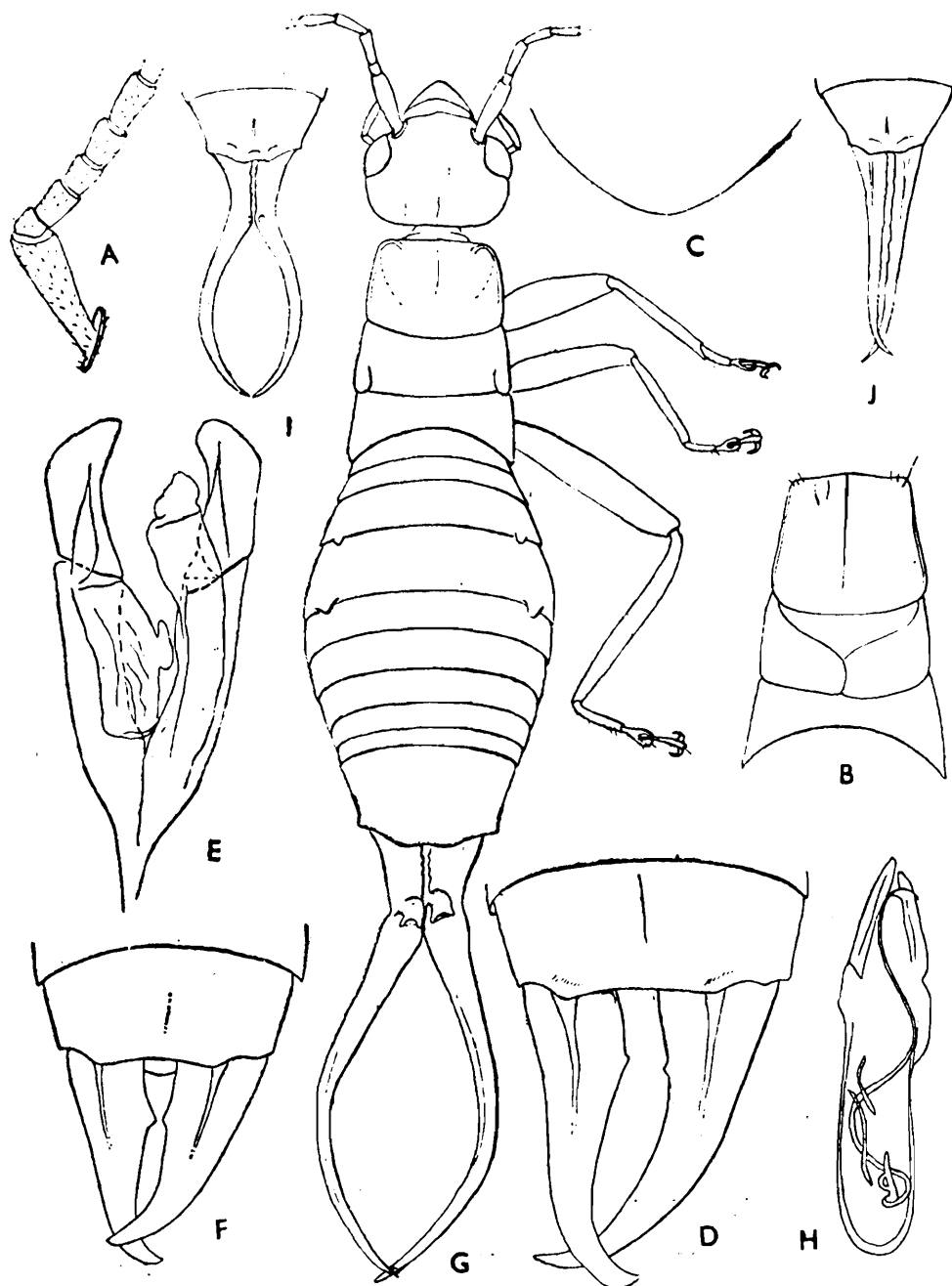


Fig. 2. A-F. *Epilabis punctate* sp. n. Holotype ♂. A, A few basal antennal segments, B. Thorax, C. Posterior margin of penultimate sternite, D. Ultimate tergite and forceps, E. Genitalia, ♀ : F. Ultimate tergite and forceps ; G-J *Parasondax cantralli* sp. n., Holotype, ♂, G, Dorsal view, H. Genitalia, [Paratype ♂, I. Ultimate tergite and forceps, ♂ : J. Ultimate tergite and forceps.

**Parasondax cantralli sp. n.**  
(Fig. 2, G-J)

*Material examined* : Tamil Nadu, Nilgiri Hills, Naduvatam, 6000', Holotype ♂, paratypes 4 ♂♂, 9 ♀♀, 2 nymphs, v. 1958 and 2 ♂♂, iv. 1958. Paratypes 2 ♂♂, 2 ♀♀ with the author at Zoological Survey of India, Calcutta.

General colour testaceous brown with traces of black in part.

Head about as long as broad, smooth, frons weakly convex, sutures obliterated, hind margin scarcely emarginate in middle. Eyes much shorter than genae in length. Antennae 13-segmented, long and slender; 1st stout, equal to 2nd-4th together; 3rd and 4th sub-equal but both shorter than 5th, remaining gradually increasing in length distally. Pronotum weakly transverse, quadrate with all margins straight, laterally gently reflexed, median sulcus obliterated; prozona convex and metazona flat. Mesonotum transverse, posteriorly straight, with abbreviated ovate elytra laterally. Metanotum with hind margin emarginate. Legs long, slender, hind metatarsus slightly longer than the 3rd segment; 2nd briefly lobed, with long and short pubescence on under side. Abdomen convex, greatly enlarged in middle, smooth above, sides rounded, finely striate. Penultimate sternite broadly rounded posteriorly. Ultimate tergite strongly declivient and narrowed posteriorly, low tumid elevations above the roots of forceps present, hind margin trisinate. Forceps with branches depressed, contiguous, straight, internally dentate in basal one fourth with a vertical tooth, apex of which bifid and turned backwards, afterwards branches strongly bowed, compressed, tapering with apices pointed and crossing. Genitalia (Fig. 2, H).

♀ : Agrees with male in most characters but forceps simple, straight, contiguous and internally finely dentate throughout.

*Measurements* (in mm.) :

	Holotype	Paratypes	
	♂	♂♂	♀♀
Length of body	8.8	5.8—9.0	7.5—9.1
Length of forceps	4.8	3.7—5.6	2.6—3.0

*Remarks* : In some male specimens the vertical tooth of forceps is almost wanting and in its place only a vestige of tubercle could be observed. Pronotum sometimes is very slightly expanded posteriorly.

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