

ASILIDAE (DIPTERA) FROM ANDAMAN ISLANDS

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The Andaman group of islands were surveyed for asilids by us during January 1988. Besides Andaman, Little Andaman and Rutland islands were also thoroughly surveyed. Though several parties from the Zoological Survey of India had surveyed these islands earlier for other groups, this was the first time an intensive survey of Andaman Islands was undertaken for robberflies.

The Andaman and Nicobar group of islands are situated in the South eastern region of Bay of Bengal, 6° 45' N and 13° 41' N lat. and 92° 12' E and 93° 57' E long. The total land mass is approximately 8,249 Sq. Km. The Andaman group has 6,408 Sq. Km. of more than 325 islands (21 inhabited) and Nicobar group 1,841 Sq. Km. of more than 24 islands (13 inhabited) (Saldanha, 1989). Tropical rain forests cover practically all the islands. Our original plan was to survey both Andaman and Nicobar Islands but due to some unavoidable circumstances we had to restrict it to Andaman group of islands.

Genus *Laxenecera* Macquart

1838. *Laxenecera* Macquart, *Dipt. exot.* 1 (2) : 77. Type-species : *Laxenecera albibarbis* Macquart ; designated by Hermann (1919 : 340).

1. *Laxenecera albibarbis* Macquart

1838. *Laxenecera albibarbis* Macquart, *Dipt. exot.*, 1 (2) : 195. Type-locality : Bengal, India.

1983. *Laxenecera albibarbis* : Joseph & Parui, *Oriental Ins.*, 17 : 297.

Material : 2 ♀, Little Andaman : Hut Bay, 22.i.1988, Coll. A. N. T. Joseph & Party.

Distribution : It was described from 'Bengal', India, and the other recorded localities are Bihar, Gujarat, Himachal Pradesh, Maharashtra and Uttar Pradesh. Here it is recorded for the first time from Andaman Island.

Diagnosis : It resembles *Laxenecera flavibarbis* Macquart. Head and scape bear long, white setae ; mystax black with some white setae ; setae of thorax white, wing yellow stained ; posterior abdominal segments with white setae below.

Genus *Orthogonis* Hermann

1914. *Orthogonis* Hermann, *Ent. Mitt.* 3 : 132. Type-species : *Laphria scapularis* Wiedemann, 1828 ; Original designation.

2. *Orthogonis andamanensis* Joseph & Parui

1981. *Orthogonis andamanensis* Joseph & Parui, *Ent. Scand.* 12 : 221. Type-locality : Wrightmyo, S. Andaman.

Material : Holotype ♂, ZSI. Reg. No. 7643/H6, S. Andaman : Wrightmyo, alt. 18 m, 1. iv. 1964, Coll. B. S. Lamba.

Distribution : The species has so far been recorded only from Andaman Islands.

Diagnosis : A large black and violet species with contrasting yellow legs and light brown wings. It differs from the type species *Orthogonis scapularis* (Wiedemann) by the male genitalia, proportional length of veins at the distal part of discal cell (the lower end vein of discal cell and of the closed and stalked fourth posterior cell) and the details of body colouration.

Genus *Stichopogon* Loew

1847. *Stichopogon* Loew, *Linn. Ent.* 2 : 499. Type-species : *Dasypogon elegantulus* Wiedemann, 1820 : original designation.

Key to species

- | | |
|---|---------------------------|
| 1. Fore femur partly or wholly orange, or yellow ... | 2 |
| —Fore femur black, lamella of female shining black brown with a tuft of yellow setae fringing all upper margin, mystax and face white ... | <i>inaequalis</i> (Loew) |
| 2. Tibiae orange except black apex of hind tibia, disc of scutellum bare, base of lamella much narrower than apex ... | <i>tomentosus</i> Oldroyd |
| —All tibiae pale yellow with black apex, scutellar disc bears sparse, long setae, base of lamella much narrower than apex ... | <i>oldroydi</i> n. sp. |

3. *Stichopogon inaequalis* (Loew)

1847. *Dasypogon inaequalis* Loew, *Linn. Ent.* 2 : 505. Type-locality : Portugal, Greece.

1975. *Stichopogon inaequalis* : Oldroyd, *A Catalog of Diptera of the Oriental Region*, 2 : 129.

Material : 2 ♀, S. Andaman : South Point, 24. i. 1988. Coll. A. N. T. Joseph.

Distribution : The species was described from Palaearctic Region. In the Oriental Region it has been recorded from Sri Lanka and India. In India it has been reported from Andhra Pradesh, Bihar, Maharashtra and Tamil Nadu. It is reported for the first time from Andaman.

4. *Stichopogon oldroydi* n. sp.

(Fig. 1)

A tiny black species with grey tomentum, black and pale yellow legs and brownish tinged wings, female lamella without tuft. Male : length 4-6 mm, wing 3-4 mm ; female ; length 6 mm, wing 4-5 mm

Females : *Head* as broad as or slightly broader than thorax, mystax pale yellow with a few white bristles ; fronto-orbital plate with white setae, ocellar bristles white or pale yellow, postocular bristles pale yellow, posterior to ocellar triangle with a few pale yellow bristles, postcranium with white setae, postgena with dense white setae. Antenna black, densely grey tomentose, pedicel with a few white bristly setae, scape about two-thirds length of pedicel, first flagellomere longer than combined length of scape and pedicel, style about two-thirds length of first flagellomere. Palpus and proboscis black with sparse white setae.

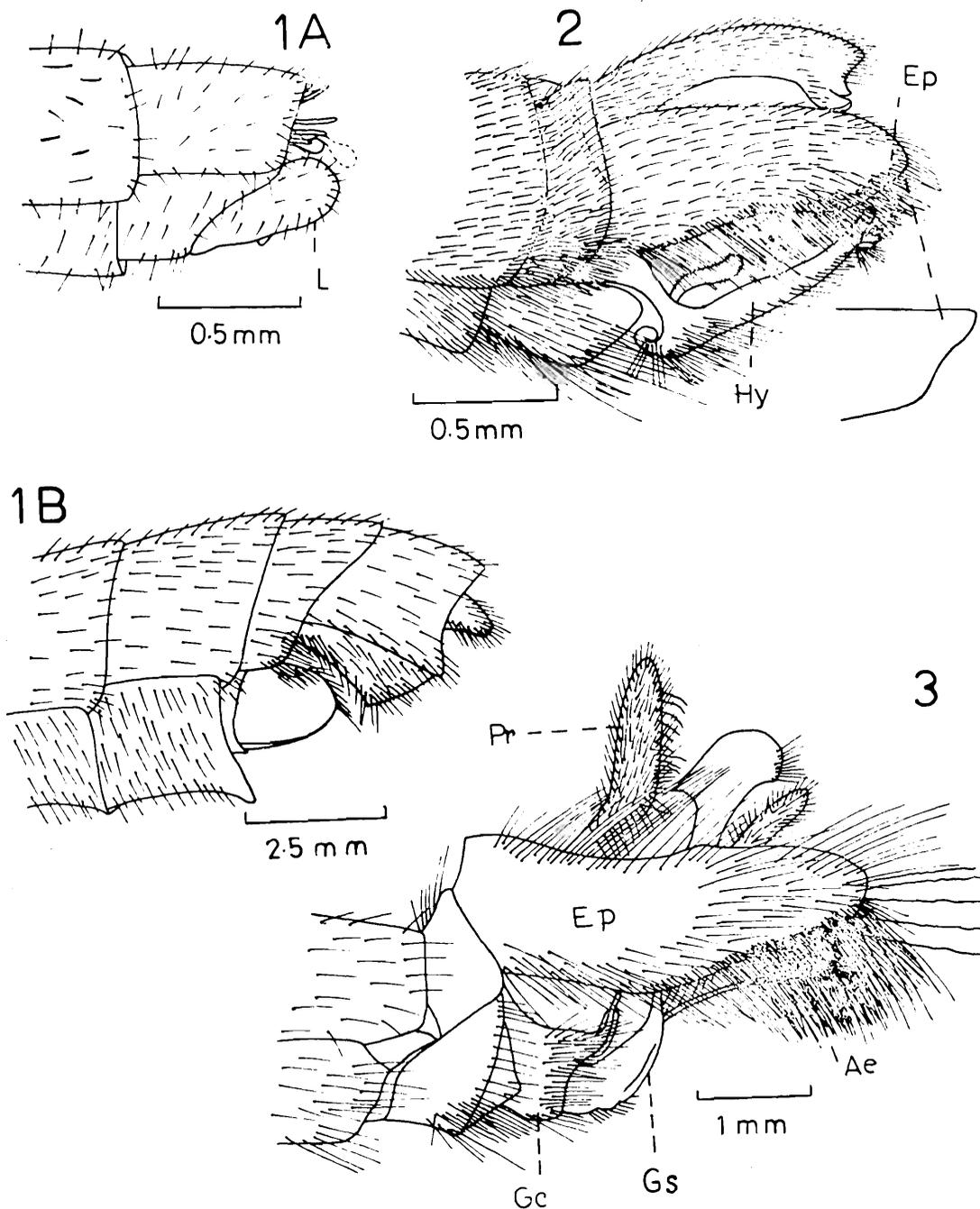
Thorax black, grey or greyish-yellow tomentose ; pronotum with white setae laterally, in holotype scutum with a broad mediolongitudinal black stripe, the stripe lightly grey tomentose on anterior half which is divided by a narrow black stripe, paratypes similar but tomentum on mediolongitudinal stripe may be densely greyish-yellow, also with two submedian black spots ; chaetotaxy : 1 notopleural, 1 postalar, 1 (with or without an additional) supra-alar ; vestiture white and bristles pale yellow ; scutellum with hind border bearing 6-8 bristles, disc with sparse long setae and two bristles ; pleura sparsely grey tomentose. Haltere pale yellow with yellowish-brown stalk.

Legs black and pale yellow to yellowish-brown ; coxa black and pale yellow to a varying extent, trochanter pale yellow, femur black but basally pale yellow, the latter colour increases from fore to hind femur so much so it occupies slightly less than half on hind femur, tibia pale yellow with black apex, black colour extensive and occupies about one-third on hind tibia, tarsus pale yellow with the segments wholly pale yellow or pale yellow with varying extent black, fore tibia with 2-3 posteroventral bristles, mid tibia with 2-3 posteroventral bristles, 2 anteroventral bristles and 2 anterior bristles, vestiture and bristles white with a few of the bristles pale yellow.

Wing light brown.

Abdomen black with varying extent grey tomentose, terga grey tomentose anteriorly, especially laterally, and in some cases narrowly grey tomentose along

posterior border, tergum 1 laterally with a bunch of white setae, vestiture white. Female genitalia (Fig. 1A) black with eighth tergum bearing a circlet of about ten spines, lamella without apical tuft of setae.



Figs. 1-3. 1. *Stichopogon oldroydi* n. sp., A, lateral view of female genitalia ; B, lateral view of male genitalia.
 2. *Ommatius mitrai* n. sp., lateral view of male genitalia.
 3. *Astochia shishodiai* n. sp., lateral view of male genitalia.

Male : Similar but with the following differences : mystax in some paratypes wholly pale yellow, length of scape variable from two-thirds to slightly shorter to pedicel ; in some examples scutellar border with lesser number of bristles, bristles on

scutellar disc may be absent ; on hind femur with pale yellow colouration not so extensive ; abdomen with white and black vestiture. Male genitalia (Fig. 1B) figured.

Holotype ♀, Reg. No. 7601/H6, S. Andaman, South Point, 24.i.1988, Coll. A. N. T. Joseph & Party. *Paratypes* 1 ♀, 4 ♂, Reg. Nos. 7602/H6 to 7606/H6, rest of data as in holotype ; 1 ♀, Reg. No. 7607/H6, Little Andaman, Hut Bay, 27.i.1988, Coll. A. N. T. Joseph & Party.

It is generally similar to *Stichopogon indicus* Joseph & Parui (1984b) and *S. menoni* Joseph & Parui (in press). Of these *S. oldroydi* n. sp. is quite close to *S. menoni* Joseph & Parui from which it can be readily separated by the short lamella together with its shape. The species is named in honour of Dr Harold Oldroyd, the distinguished student of robberflies who revised the Indian species of the genus *Stichopogon*.

5. *Stichopogon tomentosus* Oldroyd

1948. *Stichopogon tomentosus* Oldroyd, *Entomologist's Mon. Mag.* 84 : 243. Type-locality : Bannar, Bihar, India.

1983. *Stichopogon tomentosus* : Joseph & Parui, *Oriental Ins.* 17 : 326.

Material : 2 ♂, 1 ♀, Little Andaman : Netaji Nagar, 25.i.1988, Coll. A. N. T. Joseph.

Distribution : It was described from Bihar and subsequently recorded from West Bengal. Here it is reported for the first time from Andaman.

Genus *Cophinopoda* Hull

1958. *Cophinopoda* Hull, *Proc. Ent. Soc. Wash.* 60 : 251. Type-species : *Asilus chinensis* Fabricius, 1794 : 383 ; original designation.

6. *Cophinopoda chinensis* (Fabricius)

1794. *Asilus chinensis* Fabricius, *Ent. Syst.* 4 : 383. Type-locality : China.

1975. *Cophinopoda chinensis* : Oldroyd, *A Catalog of Diptera of the Oriental Region*, 2 : 129.

Material : 1 ♂, 2 ♀, South Andaman : Port Blair : Corbyn's Cove Beach, 14.i.1988 ; 2 ♀, Chiriatapu, 15.i.1988 ; 3 ♂, Rutland Island, 3.ii.1988, all Coll. A. N. T. Joseph.

Distribution : It is a cosmopolitan species and it is widely distributed in India. Here it is recorded for the first time from Andaman.

Genus *Ommatius* Wiedemann

1821. *Ommatius* Wiedemann, *Dipt. Exot.* 1 : 213. Type-species : *Asilus marginellus* Fabricius ; designated by Coquillett (1910 : 579).

Key to species

1. Epandrium linear and gradually narrowed at apex 2
—Epandrium stout, hind femur with a posteroventral and anteroventral row of stout bristles ... *mitrai* n. sp.
2. Fore femur with a row of stout bristles ventrally, setae of hypandrium short ... *andamanensis* Joseph & Parui
—Fore femur without row of bristles, mid femur basally with a few posteroventral pale yellow bristles, hypandrium bears a few long setae ... *nicobarensis* Joseph & Parui

7. *Ommatius andamanensis* Joseph & Parui

1983. *Ommatius andamanensis* Joseph & Parui, *Ent. Scand.* 14 : 90. Type-locality : Mannarghat, S. Andaman.

Material : *Holotype* ♂, ZSI. Reg. No. 7641/H6 ; *Paratype* ♀, Reg. No. 7642/H6, S. Andaman : Mannarghat, 1.iv.1964, Coll. B. S. Lamba.

Distribution : The species has so far been recorded only from the type locality.

8. *Ommatius mitrai* n. sp.

(Fig. 2)

A medium black species with black and pale yellow legs, swollen femora, black wings and clavate abdomen. Male : length 10-11 mm, wing 7.5-8 mm.

Male : *Head* black with greyish-yellow and grey tomentum ; mystax black above and pale yellow below ; fronto-orbital setae and ocellar bristles black postocular bristles black, postcranium with sparse white, or white and black setae, postgena with dense white setae. Antenna black, scape and pedicel with black bristles, pedicel slightly shorter than, or subequal to scape, first flagellomere longer than scape. Palpus and proboscis black, former with black setae while latter with white setae.

Thorax black, grey tomentose ; pronotum sparsely with white setae and 4 black bristles in a transverse row ; scutum without mediolongitudinal stripe but with or without a very short, narrow, median grey band on anterior border ; chaetotaxy : 2 notopleurals, 1 postalar, 1 supra-alar, 1 intra-alar, 3 or 5 dorsocentral ; vestiture black except for a few setae on postpronotal lobes being white, bristles black, pleura with dense grey tomentum ; scutellum with a pair of black bristles on border, disc with white setae in holotype, and black and pale yellow setae in paratype ; katatergite with black and pale yellow bristles. Haltere pale yellow and yellowish-brown.

Legs black and pale yellow ; coxa and trochanter black, femur black with brown marking anteriorly, ventrally and posteriorly on fore and mid femora, and anteriorly

on hind femur, in holotype brown marking not so distinct, tibia pale yellow with black apex, mid tibia or both fore and mid tibiae anterodorsally also black, tarsus black with basitarsus black and pale yellow, vestiture black and pale yellow, bristles black, hind femur with a posteroventral row of short bristles and an anteroventral row of about 4 similar bristles.

Wing black but gradually becoming lighter posteriorly, and posterolaterally almost hyaline.

Abdomen black, tergum 1 posterolaterally with pale yellow bristles, vestiture black and pale yellow. Male genitalia (Fig. 2) black with black, and a few pale yellow setae.

Female : Unknown.

Holotype ♂, Reg. No. 7614/H6, Little Andaman, Hut Bay, Government School, 23.i.1988, Coll. A. N. T. Joseph and Party. *Paratype* ♂, Reg. No. 7615/H6, Little Andaman : Ramakrishnapuram, 19.i.1988, Coll. A. N. T. Joseph and Party.

It is generally similar to *Ommatius pseudodravidicus* Joseph and Parui (1983) differing from which in the comparatively stout built, darker colouration, swollen hind femur, black abdomen and in the shape of male genitalia. It is named in honour of our colleague Sri Bulganin Mitra, who helped us in our Andaman survey of robberflies.

9. *Ommatius nicobarensis* Joseph & Parui

1983. *Ommatius nicobarensis* Joseph & Parui, *Ent. Scand.* 14 : 91. Type-locality : Compbell Bay, Great Nicobar.

Material : 2♂, 1♀, South Andaman : Port Blair : Corbyn's Cove Beach, 14.i.1988 ; 1♂, Little Andaman : Ramakrishnapuram, 20.i.1988 ; 1♂, 1♀, Little Andaman : Hut Bay, 21.i.1988 ; 4♂, 11♀, Hut Bay, 22.i.1988 ; 2♀, Hut Bay : Government School compound, 23.i.1988 ; 3♀, Hut Bay, 27.i.1988 ; 3♂, 2♀, Harmendar Bay, 28.i.1988 ; 1♂, 4♀, Vivekanandapuram, 29.i.1988, all Coll. A. N. T. Joseph.

Distribution : So far the species has been recorded only from Nicobar. It is recorded here for the first time from Andaman.

Genus *Astochia* Becker

1913. *Astochia* Becker, *Anr. Mus. Zool. Acad. St. Petersburg*, 17 : 538. Type-species : *Astochia metatarsata* Becker ; monotypic.

10. *Astochia shishodiai* n. sp.

(Fig. 3)

A medium black species with grey tomentum, black and pale yellow legs, in male fore tarsus bearing spatulate bristles, and distally infuscated wings. Male : length 12-20 mm, wing 10-12 mm ; female : 17-20 mm, wing 11-13 mm.

Male : *Head* broader than thorax, black, grey and greyish-yellow tomentose ; mystax black with a few white bristles below, fronto-orbital setae and ocellar bristles black, postcranium with black setae above and white setae below, postocular bristles black, postgena with dense white setae. Antenna black, scape and pedicel with black bristles, pedicel about three-fourths length of scape, first flagellomere subequal to the combined length of scape and pedicel, style much longer than first flagellomere. Palpus and proboscis black with white setae.

Thorax black, grey tomentose ; pronotum with white setae and a pair of black bristles ; scutum with a broad mediolongitudinal black stripe extending from anterior border to middle of transverse suture and hind border, the stripe faintly divided by a narrow grey stripe, submedially with three black spots in a longitudinal row ; chaetotaxy : 2-3 notopleurals, 3 postalars, 1 supra-alar, 1 intra-alar, in some examples a few bristly setae present in a dorsocentral row posteriorly ; vestiture black except for setae on postpronotal lobes being pale yellow ; scutellar disc with dense, long, black setae, border with 4-6 black bristles ; pleura grey tomentose. Haltere light brown to brown.

Legs black and pale yellow to yellowish brown, coxa, trochanter and tarsus black, fore femur black with a pale yellow to yellowish-brown marking ventrally and laterally slightly beyond middle, on mid femur pale yellow to yellowish-brown more extensive, hind femur black, tibia pale yellow to yellowish-brown with black apex, hind tibia wholly black ; fore tarsus with 2 or more spatulate bristles, hind femur posteriorly bearing dense pale yellow bristles or bristly setae and below to it with elongate pale yellow setae, ventrally at apex with dense, short, black, spiny setae, hind tibia basally with a pair of black incurved bristles posteriorly, vestiture black and white to pale yellow, bristles black.

Wings infuscated distally which extends into fifth posterior cell.

Abdomen black, each tergum with a transverse band of faint grey tomentum posteriorly, sides of tergum 1 with a few black bristles amidst long pale yellow setae, tergum 2 laterally with long black, or black and pale yellow, setae, vestiture on tergum 1 pale yellow and black to varying extent, while on rest black. Male genitalia (Fig. 3) black with black setae.

Female : Similar but with the following differences : pronotum without black bristles ; pale yellow to yellowish-brown more extensive on legs so much so hind femur and tibia pale yellow to yellowish-brown with black apex, hind femur without pale yellow bristly setae, elongate setae and short spiny setae, hind tibia devoid of basal bristles ; pale yellow setae comparatively more extensive on abdomen and in some examples present on tergum 4 also. Female genitalia black, becoming slender from segments 6-9, the last segment short and laterally compressed.

Holotype ♂, Reg. No. 7623/H6, S. Andaman, South Point, 24.i.1988, Coll. A. N. T. Joseph and Party. *Paratypes* 6 ♂, 9 ♀, Reg. No. 7624/H6 to 7638/H6, Little Andaman, Netaji Nagar, 17.i.1988, Coll. A. N. T. Joseph and Party; 1 ♂, 1 ♀, Reg. No. 7639/H6 and 7640/H6, rest of details as in holotype.

It is the first time species with striking spatulate bristles on front tarsus has been observed in *Astochia* from Andaman. *Astochia shishodiai* n. sp. can be separated from all the other known regional species by this together with the narrow epandrium.

Genus *Heligmoneura* Bigot

1858. *Heligmoneura* Bigot, in Thomson, *Arch. Ent.* 2 : 356. Type-species : *Heligmoneura modesta* Bigot, 1858 : 356 ; monotypic.

Key to species

1. Epandrium with profuse long bristles, mystax black above and pale yellow below ... *andamanensis* Joseph & Parui
- Epandrium without bristles, mystax white with a few black bristles above ... *mehtai* n. sp.

11. *Heligmoneura andamanensis* Joseph & Parui

1980. *Heligmoneura andamanensis* Joseph & Parui, *Ent. Scand.* 11 : 284. Type-locality : South Andaman.

Material : 1 ♂, 5 ♀, Little Andaman : Ramakrishnapuram, 19.i.1988 ; 6 ♂, 3 ♀, 20.i.1988, rest of data as in preceding ; 1 ♂, Little Andaman : Hut Bay, 21.i.1988 ; 5 ♂, Hut Bay : Government School Compound, 23.i.1988 ; 8 ♂, 6 ♀, Vivekanandapuram, 29.i.1988 ; all Coll. A. N. T. Joseph.

Distribution : The species has so far been recorded only from Andaman.

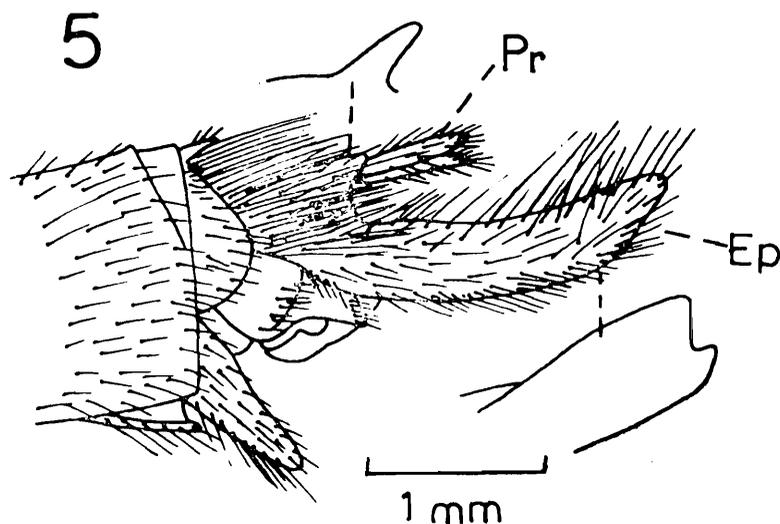
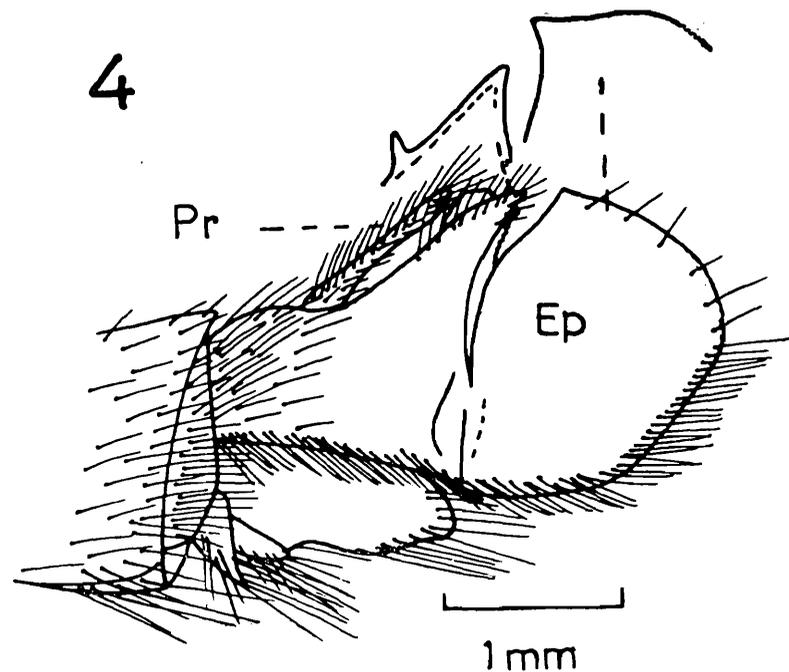
12. *Heligmoneura mehtai* n. sp.

(Fig. 4)

A large black species with high facial tubercle, mystax white with a few black bristles above, yellowish-brown legs, abdomen bearing golden yellow setae and bristles, epandrium with cleft. Male : length 21 mm, wing 16-17 mm ; female : length 23 mm, wing 18 mm.

Male : *Head* broader than thorax, black with pale yellow face, tomentum white and greyish-yellow, facial tubercle high and extending to the antennal base, mystax with a few black bristles above ; fronto-orbital bristles golden yellow and black above, ocellar bristles black, postcranium with white to pale yellow and black setae. Antennal scape and pedicel yellowish-brown with black bristles, remainder black, scape long,

pedicel short, less than half of scape and slightly shorter than first flagellomere, style long. Palpus and proboscis black, former with black and pale yellow setae while latter with wholly pale yellow setae.



Figs. 4-5. 4. *Heligmoneura mehtai* n. sp., lateral view of male genitalia.
5. *Promachus pseudocontractus* n. sp., lateral view of male genitalia.

Thorax black, greyish-yellow and grey tomentose ; pronotum with yellow and black setae and with a median transverse row of black bristles ; scutum with a broad mediolongitudinal black stripe extending from anterior border to well beyond transverse suture, the stripe divided by a grey stripe, submedially with the usual three

black spots in longitudinal row ; chaetotaxy : 2 notopleurals, 2-3 postalars, 3 supra-alar, 2-4 dorsocentrals ; bristles black, vestiture black but for a few pale yellow setae both anterolaterally and posterolaterally ; scutellar disc with black setae but a few laterally pale yellow, hind border with a pair of black bristles. Haltere yellowish-brown with black marking on head.

Legs yellowish-brown with hind femur nearly brown, apex of femur black, distal tarsal segments also black, vestiture black and pale yellow, bristles black.

Wing light brown with apex dark brown, medially and anteriorly almost hyaline.

Abdomen black, each tergum on hind border narrowly golden yellow, vestiture golden yellow, terga 1 and 2 with lateral, long, golden yellow setae some of which form bristles, succeeding terga laterally with 2 or more golden yellow bristles which gradually decrease in size on posterior terga. Male genitalia (Fig. 4) shining black with black setae, epandrium with deep incision.

Female : Similar but with the following differences : comparatively darker, mystax with black bristles predominant ; fronto-orbital bristles wholly black ; abdomen with tergum 1 laterally bears black bristles, vestiture black and golden yellow, the latter predominant. Genitalia black, tergum 8 and sternum 8 well developed and cover the succeeding tergum and sternum, proctiger black with black and pale yellow setae.

Holotype ♂, Reg. No. 7620/H6, S. Andaman, South Point, 24.i.1988, Coll. A.N.T. Joseph and Party. *Paratypes* : 1 ♀, Reg. No. 7621/H6, rest of data as in holotype ; 1 ♂, Reg. No. 7622/H6, Little Andaman, 4 Kms from Hut Bay, 21.i.1988, Coll. A.N.T. Joseph and party.

It is the fourth species under *Oligoschema* group (which is characterised by high facial tubercle and shape of epandrium) from India, the other three being *Heligmoneura andamanensis* Joseph & Parui (1980), *H. bigoti* Joseph & Parui (1984a) and *H. assamensis* Joseph & Parui (1987). Of these *H. mehtai* n. sp. is closely allied to *H. andamanensis* Joseph & Parui, from which it can be recognised by the stout built, and in the shape of epandrium. Besides, epandrium is devoid of elongate, dense bristles in the former. It is named in honour of our colleague Dr H. S. Mehta, for various facilities extended to us during our survey of Andaman.

Genus *Philodicus* Loew

1848. *Philodicus* Loew, *Linn. Ent.* 3 : 391. Type-species : *Asilus javanus* Wiedemann, 1819 : 4 ; original designation.

13. *Philodicus ceylanicus* (Schiner)

1868. *Philodicus ceylanicus* Schiner, in *Reise der Osterreichischen Fregatte Novara*, *Dipt.* : 179, Type-locality : Sri Lanka.

Philodicus ceylanicus : Joseph & Parui, *Oriental Ins.* 17 : 361

Material : 27 ♂, South Andaman : Port Blair : Corbyn's Cove Beach, 1.ii.1988, Coll. A.N.T. Joseph.

Distribution : In India it has been recorded from Andaman, Kerala, Pondicherry, Tamil Nadu and West Bengal.

Diagnosis : It is closely allied to *Philodicus chinensis* Schiner but differs from it by the presence of only two weak setae on the border of scutellum and small size.

Genus *Promachus* Loew

1848. *Promachus* Loew, *Linn. Ent.* 3 : 390. *Asilus maculatus* Fabricius ; designated by Coquillett (1910 : 595).

Key to species

- | | | |
|--|-----|--------------------------------|
| 1. Legs wholly black, abdomen with yellow setae,
male genitalia with a tuft of white setae | ... | <i>nicobarensis</i> Schiner |
| —Legs not wholly black, male genitalia without a
tuft of white setae | ... | 2 |
| 2. Fore and mid femora yellowish-brown with black
dorsally and anteriorly, vestiture of legs black and
white and that of abdomen black | ... | <i>pseudocontractus</i> n. sp. |
| —Fore and mid femora reddish with black apex,
pubescence of legs and vestiture on abdomen
mainly white | ... | <i>apivorus</i> (Walker) |

14. *Promachus apivorus* (Walker)

1860. *Trupanea apivorus* Walker, *Trans. ent. Soc. Lond.* 5 : 282. Type-locality : Burma.

1975. *Promachus apivorus* : Oldroyd, *A Catalog of Diptera of the Oriental Region*, 2 : 152.

Material : Recorded from literature.

Distribution : The species was described from Burma. Later it was recorded from Thailand and India. In India it has been recorded only from Andaman Island.

15. *Promachus nicobarensis* Schiner

1868. *Promachus nicobarensis* Schiner, in *Reise der Osterreichischen Fregatte Novara*, *Dipt.* : 177.
Type-locality : Kar Nicobar, Nicobar Islands.

1983. *Promachus nicobarensis* : Joseph & Parui, *Oriental Ins.* 17 : 368.

Material : 3 ♂, S. Andaman : South Point, 24. i. 1988, Coll. A.N.T. Joseph.

Distribution : This is the second record of the species and the first from Andaman.

16. *Promachus pseudocontractus* n. sp.

(Fig. 5)

A rather large black species with greyish-yellow and grey tomentum, black and yellowish-brown legs, and light brown wings with a grey streak in the first submarginal cell. Male : length 20-23 mm, wing 13-16 mm.

Males : *Head* as broad as thorax with dense greyish-yellow or grey tomentum ; mystax pale yellow, fronto-orbital bristles pale yellow and black, postcranium with white and pale yellow setae, postocular bristles black above and pale yellow below, postgena with dense, white setae. Antenna black, setae on scape, and pedicel black, pedicel slightly longer than half of scape, first flagellomere a little shorter than scape, style elongate. Palpus and proboscis black with black and pale yellow setae.

Thorax black, tomentum sparse ; pronotum with pale yellow and white setae whose extent variable, medially with a transverse row of eight black bristles ; scutum with a broad mediolongitudinal black stripe extending slightly beyond transverse suture to midway between transverse suture and hind border, which is divided by a rather broad, median stripe, submedially with the usual three black spots in a row ; chaetotaxy : 2 notopleurals, 2 postalans, 2 supra-alars, 4 dorsocentrals of which 1 in some examples weakly developed ; bristles black, vestiture black but for a few pale yellow setae both anterolaterally and posterolaterally ; scutellar disc with pale yellow setae, a few of which medially black, hind border with two rows or exceptionally with three rows of varying number of black bristles. Haltere pale yellow to dark brown with the stalk comparatively lighter coloured.

Legs black and yellowish-brown ; fore and mid femora black dorsally and anteriorly while the rest yellowish-brown, hind femur black with yellowish-brown dorsally on basal half, the extent of colouration quite variable ; tibia yellowish-brown with black basally and distally, the black area gradually extends from fore to hind tibia ; tarsus black ; vestiture black and white with the white setae comparatively dense and long on hind femur, bristles black, mid and hind femora with anteroventral row of black bristles.

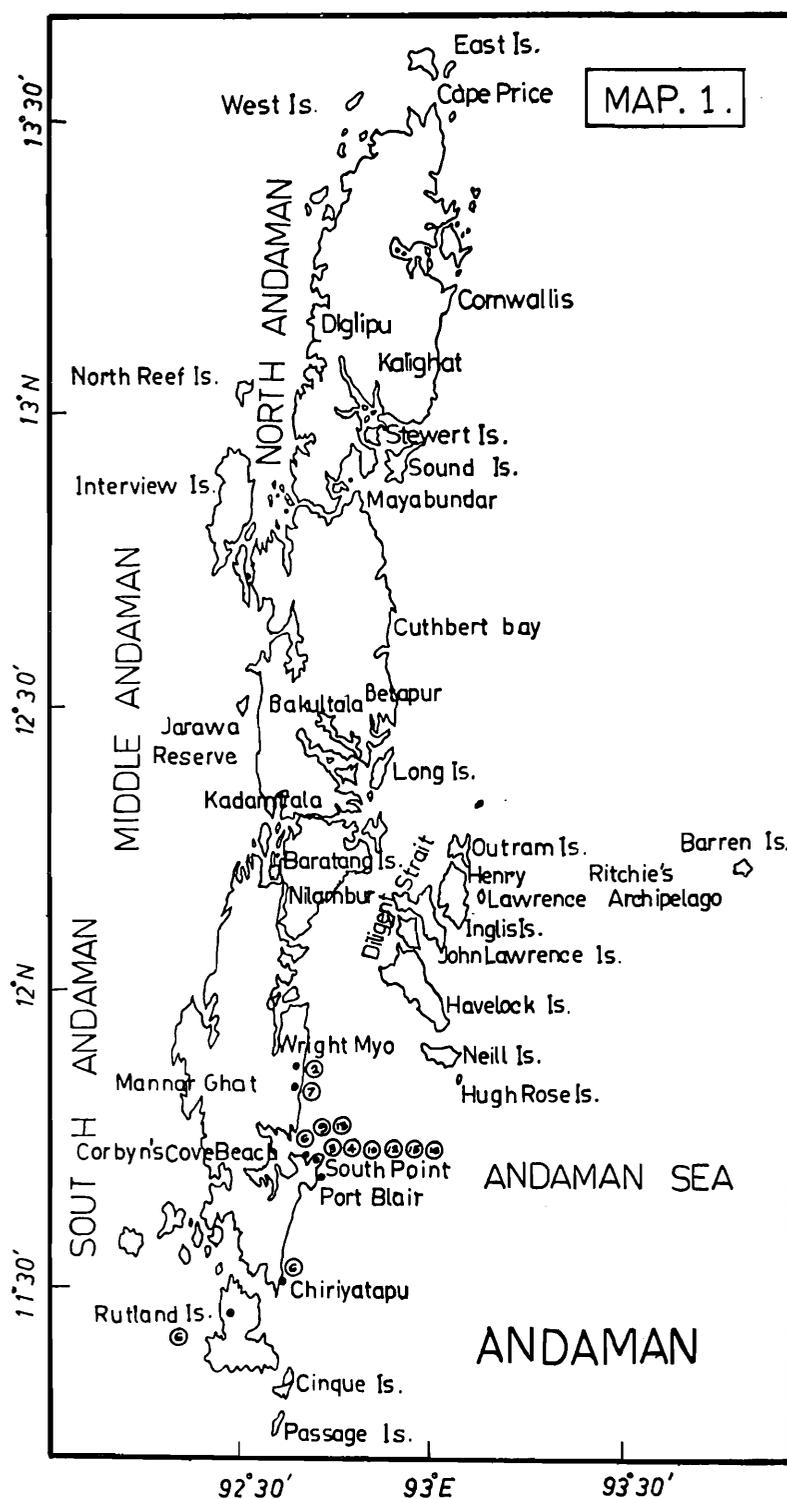
Wing light brown with a grey streak in the first submarginal cell.

Abdomen black with hind border of tergum grey, sides of tergum 1 with pale yellow setae and bristles, in some cases one or more bristles black, tergum 2 laterally with rather long, pale yellow setae, succeeding terga laterally with short, pale yellow setae, vestiture black. Male genitalia (Fig. 5) shining black with a dorsal tuft of white setae, sternum 8 rather well developed.

Female : Unknown.

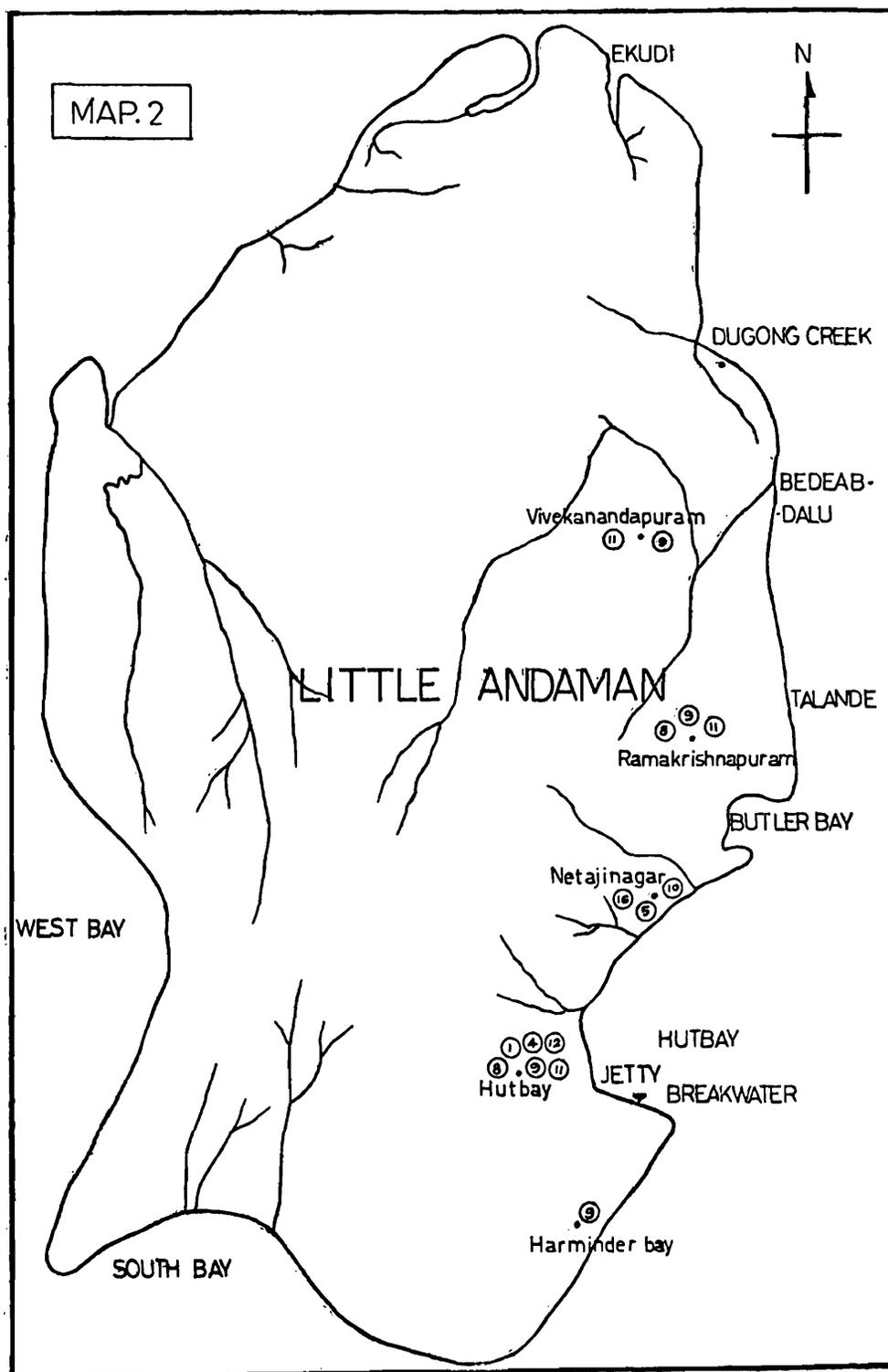
Holotype ♂, Reg. No. 7608/H6, S. Andaman : South Point, 24. i. 1988, Coll. A. N. T. Joseph & Party. *Paratypes* : 3 ♂, Reg. No. 7609/H6 to 7611/H6, rest of

data as in holotype ; 2 ♂, Reg. No. 7612/H6, to 7613/H6, Little Andaman : Netaji Nagar, 17, i. 1988, Coll. A. N. T. Joseph & Party.



MAP 1. Andaman Islands, distribution of asilids ; 1, *Orthogonis andamanensis* Joseph & Parui ; 2, *Orthogonis andamanensis* Joseph & Parui ; 3, *Stichopogon inaequalis* (Loew) ; 4, *S. oldroydi* n. sp. ; 6, *Cophinopoda chinensis* (Fabricius) ; 7, *Ommatius andamanensis* Joseph & Parui ; 9, *O. nicobarensis* Joseph & Parui ; 10, *Astochia shishcdiai* n. sp. ; 12, *Heligmoneura mehtai* n. sp. ; 13, *Philodicus ceylanicus* Schiner ; 15, *Promachus nicobarensis* Schiner ; 16, *P. pseudocontractus* n. sp.

Promachus pseudocontractus n. sp. is similar to *Promachus contractus* (Walker) (1851) from which it differs in the large size, first sub-marginal cell with a grey streak and in the differences in the shape of male genitalia, especially epandrium.



MAP 2. Little Andaman, distribution of asilids: 1, *Laxenecera albibarbis* Macquart; 4, *Stichopogon oldroydi* n. sp.; 5, *S. tomentosus* Oldroyd; 8, *Ommatius mitrai* n. sp.; 9, *O. nicobarensis* Joseph & Parui; 10, *Astochia shishodiai* n. sp.; 11, *Heligmoneura andamanensis* Joseph & Parui; 12, *H. mehtai* n. sp.; 16, *Promachus pseudocontractus* n. sp.

DISCUSSION

Until this study, asilid fauna of Andaman was known by 5 species of 5 genera : *Orthogonis andamanensis* Joseph & Parui, *Ommatius andamanensis* Joseph & Parui, *Heligmoneura andamanensis* Joseph & Parui, *Philodicus ceylanicus* Schiner and *Promachus apivorus* (Walker). Consequent to our survey the species has increased to 16 numbers. Of these 6 are new records, viz., *Laxenecera albibarbis* Macquart, *Stichopogon inaequalis* (Loew), *S. tomentosus* Oldroyd, *Cophinopoda chinensis* (Fabricius), *Ommatius nicobarensis* Joseph & Parui and *Promachus nicobarensis* Schiner* ; and 5 are new species, *Stichopogon oldroydi*, *Ommatius mitrai*, *Astochia shishodiai*, *Heligmoneura mehtai* and *Promachus pseudocontractus*.

Of these 16 species known from Andaman only 2 species, *Ommatius nicobarensis* Joseph & Parui and *Promachus nicobarensis* Schiner, are also as well distributed in Nicobar. Undoubtedly other species known from Andaman are also distributed in Nicobar, and will be found when it is surveyed intensively. Incidentally, 7 more species are reported from Nicobar : *Clinopogon nicobarensis* (Schiner), *Ommatius frauenfeldi* Schiner, *O. nigra* (Schiner), *O. spathulatus* Doleschall, *Astochia longistylus* Wiedemann, *Machimus nicobarensis* (Schiner) and *Promachus pseudomaculatus* Ricardo.

The 16 species of asilids from Andaman belong to 9 genera, of which the genera *Laxenecera* Macquart, *Stichopogon* Loew, *Cophinopoda* Hull and *Astochia* Becker are recorded for the first time.

Orthogonis andamanensis Joseph & Parui, *Ommatius andamanensis* Joseph & Parui and *Heligmoneura andamanensis* Joseph & Parui are endemic to Andaman. Besides the 3 endemic species and the 5 new species, there are 8 species of which 6, viz., *Laxenecera albibarbis* Macquart, *Stichopogon inaequalis* (Loew), *S. tomentosus* Oldroyd, *Cophinopoda chinensis* (Fabricius), *Philodicus ceylanicus* Schiner and *Promachus apivorus* (Walker), are distributed in the Oriental region thus showing affinity mainly to this region.

SUMMARY

This paper deals with 16 species of asilids from Andaman, of which 5 species, viz., *Stichopogon oldroydi*, *Ommatius mitrai*, *Astochia shishodiai*, *Heligmoneura mehtai* and *Promachus pseudocontractus*, are new, and 6 are new records. They belong to 9 genera, of which *Laxenecera* Macquart, *Stichopogon* Loew, *Cophinopoda* Hull and *Astochia* Becker are recorded for the first time. There are only 2 species, *Ommatius nicobarensis* Joseph & Parui and *Promachus nicobarensis* Schiner distributed both in

*Inadvertently omitted to include this species under the new records in the abstract of the paper submitted to the Second International Congress of Dipterology, Bratislava, Czechoslovakia, August 27—September 1, 1990.

Andaman and Nicobar. The three species endemic to Andaman are *Orthogonis andamanensis* Joseph & Parui, *Ommatius andamanensis* Joseph & Parui, *Ommatius andamanensis* Joseph & Parui and *Heligmoneura andamanensis* Joseph & Parui. Several species of Andaman are well distributed in the Oriental Region thus showing greater affinity to that geographical region.

The types of the new species are deposited in the National Collection of Zoological Survey of India, Calcutta.

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ABBREVIATIONS

Ae, aedeagus ; Ep, epandrium ; Gc, gonocoxite ; Gs, gonostylus ; Hy, hypandrium ; L, lamella ; Pr, proctiger.