

ASILIDAE (DIPTERA) FROM ANDHRA PRADESH, INDIA

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INTRODUCTION

Andhra Pradesh is one of the least explored states of India with regard to the robberfly fauna. Hence three intensive surveys were undertaken. A.N.T Joseph and Ramakrishna surveyed Khammam, Warangal, Karimnagar and Adilabad districts from 4th to 25th February 1985; P. Parui surveyed Kurnool, Nalgonda and Warangal Districts from 17th June to 7th July 1985; and A.N.T Joseph and P. Parui surveyed West Godavari, Visakhapatnam and Vizianagaram Districts from 12th February to 7th March 1986. Hyderabad and environs were also surveyed from time to time from 1984 to early 1987, where one of us, A.N.T Joseph, was posted during that period. This paper is the result of the study of these collections.

SYSTEMATIC ACCOUNT

Lobus Martin

1972. *Lobus* Martin, *J. Ent. Soc.* 45 : 8.

1 *Lobus martini* Joseph & Parui

1983. *Lobus martini* Joseph and Parui, *Bull. zool. Surv. India*, 5 (1) : 67.

Material 1 (F), Hyderabad Dist. Manjira Road, 18 km. away from Hyderabad, 14.viii.1985, Coll. A.N.T Joseph; 1 (M), 1 (F), West Godavari Dist. Eluru Nayam Palli, 14.ii.1986, Coll. A.N.T Joseph.

Remarks: The species was described from Kerala. This is the second record of the species and for the first time from Andhra Pradesh.

2. *Lobus pandai* n. sp. (Fig. 1)

A slender black fly with grey tomentum, pale yellow, yellowish-brown and black legs, a dorsal yellowish-brown marking on hind femur, light brown wings and black abdomen. Male length 8 mm, wing 5 mm.

Male Head black with greyish-white tomentum; gibbosity indistinct, mystax a transverse row of white bristles on mouth border; postcranium with sparse white hairs but for a few brown hairs adjoining to ocellar triangle. Antenna dark brown, scape slightly longer than half of pedicel, style about three-fourths the distance of first flagellomere. Palpus and proboscis black, the latter with sparse, white hairs.

Thorax black with grey tomentum; pronotum without hairs; scutum devoid of mediolongitudinal stripe, sides grey tomentose while the rest black; chaetotaxy 1 notopleural, 1 supra-alar; vestiture black but on sides white, bristles black or pale yellow; scutellum with grey tomentum, border with dense, long, black hairs, medially also with a few black hairs; pleura with dense greyish-white tomentum, anepisternum and katepisternum anterodorsally with dense, long, white hairs. Haltere pale yellow with the distal half of stalk white.

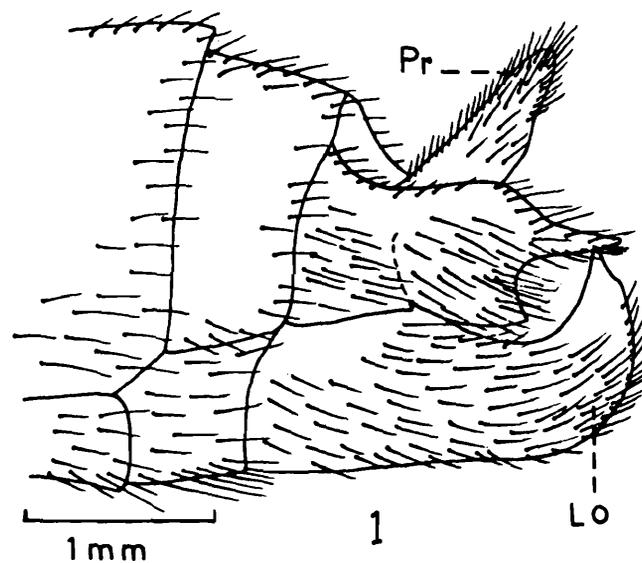


Fig. 1. *Lobus pandai* n.sp. lateral view of male genitalia.

Legs pale yellow, yellowish-brown and black, coxa and trochanter black, fore and mid femora and tibiae basally yellowish-brown while the rest dark brown, hind femur about one-third from base white, rest pale yellow with the middle of which with a yellowish-brown marking dorsally, hind tibia basal half pale yellow and distal half black, metatarsus in all legs white with black apex, remainder black, vestiture white but for a few black hairs, bristles white or black.

Wing light brown, but distally lighter coloured.

Abdomen black with grey marking on tergites both anteriorly and posteriorly, the grey marking gradually decreases on posterior tergites, terga 1 and 2 on sides with a few hairs. Male genitalia (Fig. 1) black with white hairs.

Material Holotype (M), Reg. No. 7496/H6, Warangal Dist. Pakhal Forest, 4.vii.1985, coll. P. Parui.

The genus *Lobus* Martin is represented in India by 5 species. *L. evenhuisi* Joseph & Parui,

L. himalayae Martin, *L. jairami* Joseph and Parui, *L. keralae* Martin and *L. martini* Joseph and Parui. Of these *L. pandai* n.sp. is similar to *L. evenhuisi* Joseph and Parui and *L. martini* Joseph & Parui differing from both in the pale yellow hind femur with a dorsal yellowish-brown marking and the differences in the shape of male genitalia. The species is named in honour of our colleague, Sri P. Panda.

Nusa Walker

1851. *Nusa* Walker, *Insecta saundersiana*, 1 : 105.

3. *Nusa andhraensis* n. sp. (Fig. 2)

A very small black species with golden yellow pubescence, black and yellowish-brown legs, hind femur stout, hind border of tergites yellowish-brown, and distally fuscous wings. Male length 7 mm, wing 5 mm; female length 7-8 mm, wing 5-6 mm.

Male. *Head* broader than thorax, black with sparse grey tomentum; mystax white and pale yellow, fronto-orbital plate with white hairs, ocellar bristles brown, postcranium with sparse white hairs, postocular bristles pale yellow above and white below, postgena white haired. Antenna dark brown, scape with an elongate black or pale yellow ventral bristle, pedicel with a short, black, ventral bristle, pedicel slightly longer than scape, first flagellomere long. Palpus and proboscis black with white hairs.

Thorax black with golden yellow tomentum; pronotum black with a transverse row of black and pale yellow bristles, scutum without mediolongitudinal stripe; chaetotaxy 2 notopleurals, 4 supra-alars, 1 or 2 intra-alars; vestiture golden yellow, bristles pale yellow, scutellum with white hairs which are sparse posteriorly, hind border without bristles, pleura nearly bare, karatergite with white bristly hairs. Haltere yellowish-brown with lighter coloured knob.

Legs yellowish-brown and black, fore and mid femora black with basal and apical ends yellowish-brown while the remainder black, tibia basally yellowish-brown and the remainder black, tarsus almost wholly black, hind leg large with stout femur which ventrally bears a few microtuberculate hairs, the hairs anteroventrally arranged in a row, vestiture and hairs white, apex of hind tibia and tarsal segments with a mat of golden yellow hairs.

Wing basally hyaline and distally fuscous; R_5 and M_1 united close to the border.

Abdomen black with yellowish-brown mark on hind border of terga, tergum 7 almost wholly yellowish-brown, terga 2-5 posterolaterally with 1-4 white bristles, vestiture white. Male genitalia (Fig. 2A) yellowish-brown with white hairs.

Females Similar but with the following differences comparatively darker coloured; pleura sparsely or densely grey tomentose; chaetotaxy in one paratype 3 notopleurals; the ventral microtuberculate bristly hairs on hind femur may or may not be arranged in an anteroventral row; abdomen with lesser area of yellowish-brown colouration so much so

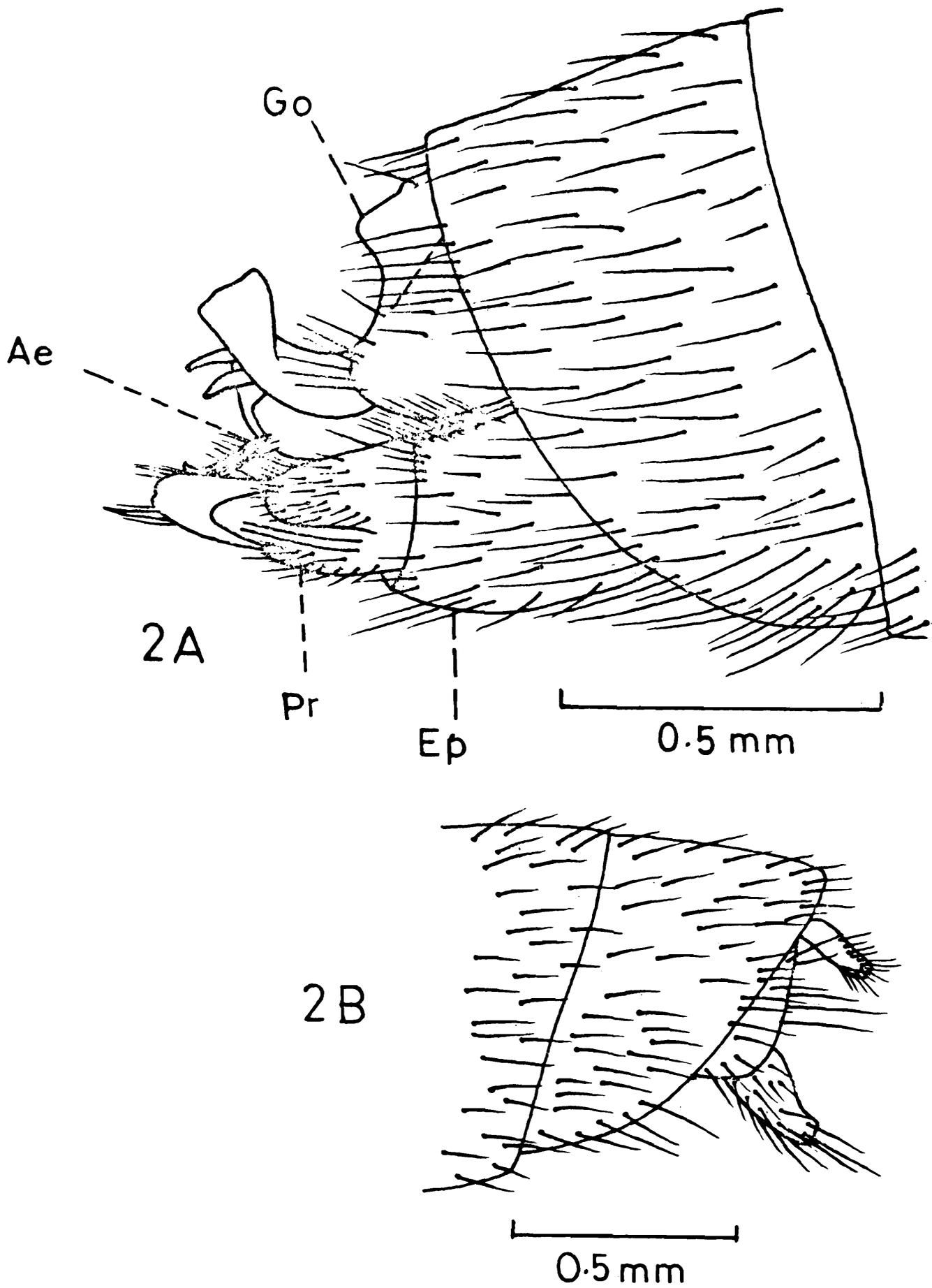


Fig. 2. *Nusa andhracnsis* n.sp., A. lateral view of male genitalia; B. lateral view of female genitalia.

tergum 7 black with yellowish brown hind border. Female genitalia (Fig. 2B) illustrated.

Material Holotype (M), Reg. No. 7497/H6, India Kurnool District Nandyal Gajalpally Forest Rest House Mahananda Road, 22.vi.1985, Coll. P. Parui. Paratypes 1 (M) & 4 (F), Reg. Nos. 7498/H6 to 7502/H6, rest of data as in holotype.

It can be readily recognised from all the other known Indian species of the genus *Nusaby* the distinctive male genitalia, especially gonocoxite, together with the presence of microtuberculate hairs on hind femur.

4. *Nusa balraji* n. sp. (Fig. 3)

A rather black species with grey tomentum, black legs, fuscous wings and black and greyish-white abdomen. Male length 15-17 mm, wing 8-9 mm; female length 14 mm, wing 9 mm.

Male Head as broad as thorax, black with grey tomentum, mystax white or white with a few black bristles below, fronto-orbital bristles white, ocellar bristles black, postocular bristles black, pale yellow and white, postcranium white haired, postgena with dense white hairs. Antenna with scape and pedicel black, first flagellomere orange-brown with base black, scape with white bristles, scape and pedicel nearly equal in length, first flagellomere longer than scape and pedicel but not elongate. Palpus and proboscis black with white hairs.

Thorax black, grey tomentose; pronotum black with a transverse median row of black bristles, laterally white haired; scutum with a faint, black mediolongitudinal stripe extending the entire length, bristles and hairs black but for a few posterolateral pale yellow bristles; chaetotaxy 2-3 notopleurals, 2-4 supra-alars, 3 postalars, 1-2 intra-alars, 3-4 dorsocentrals; scutellum black haired with a row of pale yellow and black bristles; pleura with dense greyish-white tomentum; karatergite with long, pale yellow bristly hairs. Haltere yellowish-brown.

Legs black with apex of femur and base of tibia narrowly yellowish-brown; coxa anteriorly with dense white hairs and a few white bristly hairs, fore tibia with 3 long posteroventral bristles, vestiture and bristles white with a few black ones also, fore tibia at apex and basitarsus ventrally with a mat of golden yellow pubescence, similar pubescence present on basitarsus and tarsomere 2 of hind tibia.

Wing fuscous; R_5 and M_1 united well before the border.

Abdomen black with greyish-white tomentum, tergites 1-2 greyish-white tomentose with median black, terga 3-7 medially black and laterally and posteriorly greyish-white, tergum 8 black with sparse grey tomentum, terga mediolaterally with 1-4 white bristles. Male genitalia (Fig. 3A) black with black hairs and black bristly hairs.

Females Similar but with the following differences sparsely tomentose; mystax also with a few median black bristles; chaetotaxy 2 dorso-centrals; bristles on hind border of scutellum wholly black or pale yellow. Genitalia (Fig. 3B) figured.

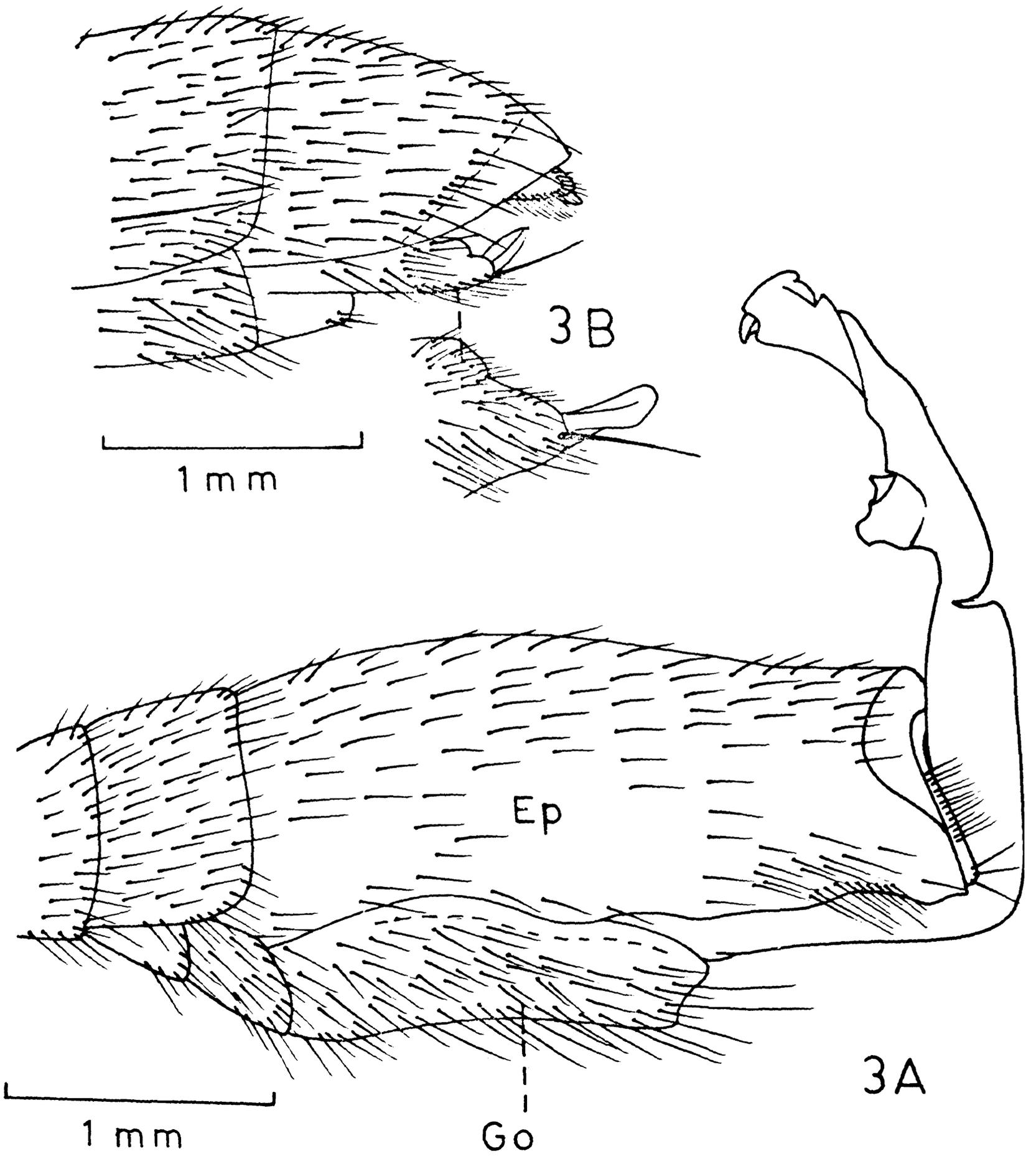


Fig. 3. *Nusa balraji* n.sp., A. lateral view of male genitalia; B. lateral view of female genitalia.

Material Holotype (M), Reg. No. 7503/H6, Kurnool District Nandyal Gajalpalli, 22.vi.1985, Coll. P. Parui and party. Paratypes 3(M), 1(F), Reg. Nos. 7504/H6 to 7507/H6, rest of data as in holotype, 1(F), Reg. No. 7508/H6, Warangal District . Pakhal Forest, 4.1 1985, Coll. P. Parui and party.

It superficially resembles *Nusa aequalis* Walker from which it differs in the black scape and orange brown first flagellomere, black tibia, and details of female genitalia (male *N. sequalis* Walker not yet recorded). Also it differs from all the other known species of the genus by the details of male genitalia, especially epandrium.

Oldroydia Hull

1956. *Oldroydia* Hull, , *Ann. Mag. nat. Hist.*, (12) 9: 398.

5. *Oldroydia costata* n. sp. (Fig. 4)

A small, black, grey tomentose species with black and white mane on scutum, black legs with yellowish-brown and black tibia, and light brown wings with the fore border dilated in male. Male length 13 mm, wing 7-8 mm; female length 13 mm, wing 6-8 mm.

Males *Head* as broad as thorax, black with grey tomentum; face slightly gibbous which extends from epistome to base of antennae, mystax with a few upper black bristles; fronto orbital hairs black, ocellar bristles black, postocular bristles white and curved forward, occipital hairs white, postgena with dense white hairs. Antenna (Fig. 4A) black, scape and

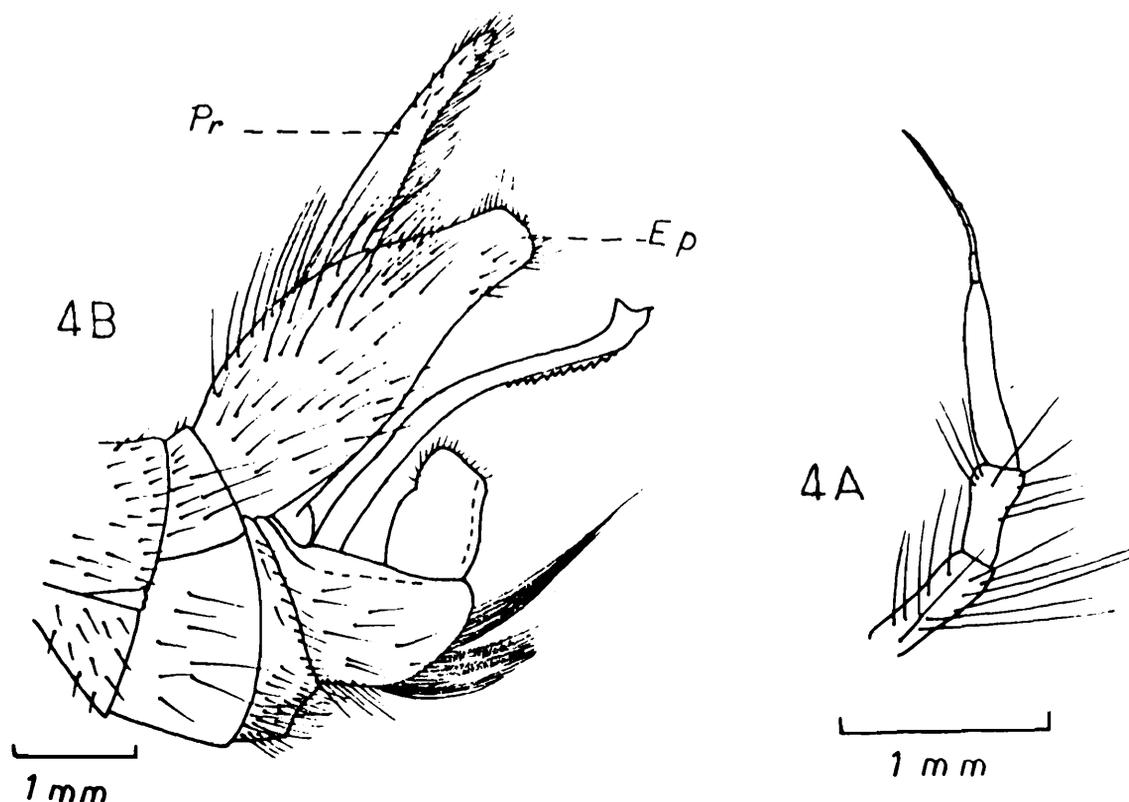


Fig. 4. *Oldroydia costata* n.sp. A, antenna; B, lateral view of male genitalia.

pedicel with black bristles, pedicel slightly shorter than scape, first flagellomere attenuate, longer than scape, arista long. Palpus and proboscis black with white hairs.

Thorax black, grey or greyish-yellow tomentose; pronotum white haired, hairs dense medially; scutum with a dense mane of black and white extending the entire length, the mane black for the anterior two-thirds and white for the posterior one-third, from the middle to hind border the mane bordered by a row of pale yellow and black bristles; chaetotaxy; 3-4 notopleural, 1 postalar, 1-2 supra-alar; vestiture black, bristles pale yellow, karatergite and meron with a few, long thin or bristly, white or pale yellow hairs; scutellum including border with dense, long, white hairs directed forward. Haltere with pale yellow stalk and yellowish-brown head.

Legs black with yellowish-brown and black tibia, mid and hind femora with an anteroventral row of pale yellow bristles, vestiture white but also with a few black hairs, bristles pale yellow with a few black ones also.

Wing light brown to brown, but medially almost hyaline, foreborder dilated.

Abdomen black with sparse grey or greyish-yellow tomentum; tergum 1 with well developed, dense white hairs, a few of which laterally form bristles, vestiture white. Male genitalia (Fig. 4B) black and yellowish-brown, hairs pale yellow and black.

Females Similar, but one paratype with dense grey tomentum; terga 2-7 posterolaterally with 2-4 white bristles. Female genitalia predominantly black with dark brown marking or vice versa, cercus almost rectangular, sternum 8 broadly pointed at apex.

Material · Holotype (M), Reg. No. 7509/H6, Hyderabad Himayat Sagar Chilkur Deer Park, 3.xii.1985, Coll. A.N.T Joseph. Paratypes 2 (M), 2 (F), Reg. Nos. 7510/H6 to 7513/H6, data as in holotype.

Oldroydia costata n. sp. is closely similar to *O. femorata* Joseph and Parui in the attenuated third antennal segment, closed marginal cell and in the absence of hamate anterior femur. The former can be distinguished from *O. femorata* Joseph and Parui by the particoloured black and yellowish-brown tibiae, by the dilated fore border of wing in males like that of *Clephydroneura* Becker, and by the details in the shape of male genitalia, especially epandrium.

Scylaticus Loew

1858. *Scylaticus* Loew, *Ofvers. K. Svenska Vet. Akad. Forh.*, 14 : 346.

6. *Scylaticus godavariensis* n. sp. (Fig. 5)

A stout black species with black legs, infuscated wings and black abdomen banded with light brown or orange. Male length 11-13 mm, wing 9 mm.

Males Head as broad as thorax, black, sparsely grey tomentose, mystax white; fronto-

orbital hairs and ocellar bristles black, postcranium with dense black hairs, those above long and well developed and those below short. Antenna black, scape with black bristles and hairs, pedicel with black hairs, pedicel about half the length of scape, first flagellomere longer than double the combined length of scape and pedicel. Palpus and proboscis black, former black and white haired, while latter white haired.

Thorax black with sparse grey tomentum; pronotum medially black haired and laterally white haired, also with a median transverse row of black bristles; scutum with mediolongitudinal stripe indistinct, but a narrow, faint, short mediolongitudinal stripe discernible anteriorly, laterally with 2 large black spots; chaetotaxy: quite variable, 2-3 notopleural, 2-3 supra-alar, 2-3 postalar, about 5 dorsocentral anterior to scutoscutellar suture; vestiture black with rather dense white hairs anterolaterally, bristles black; pleura sparsely grey tomentose; karatergite with a transverse row of long, pale yellow, hairs. Haltere pale yellow.

Legs black, vestiture predominantly white, also with a few black hairs, fore tibia and tarsus with mat of golden yellow hairs anteriorly, hind tibia and tarsus with similar hairs posteriorly, bristles white or black.

Wing infuscated.

Abdomen black, terga banded with light brown or orange posteriorly which decrease gradually in posterior terga, tergum 1 laterally with a bunch of white hairs, a few of which well developed and form bristles, terga 2-3 also with white hairs laterally, vestiture white. Male genitalia (Fig. 5) black and pale yellow. with dense black hairs.

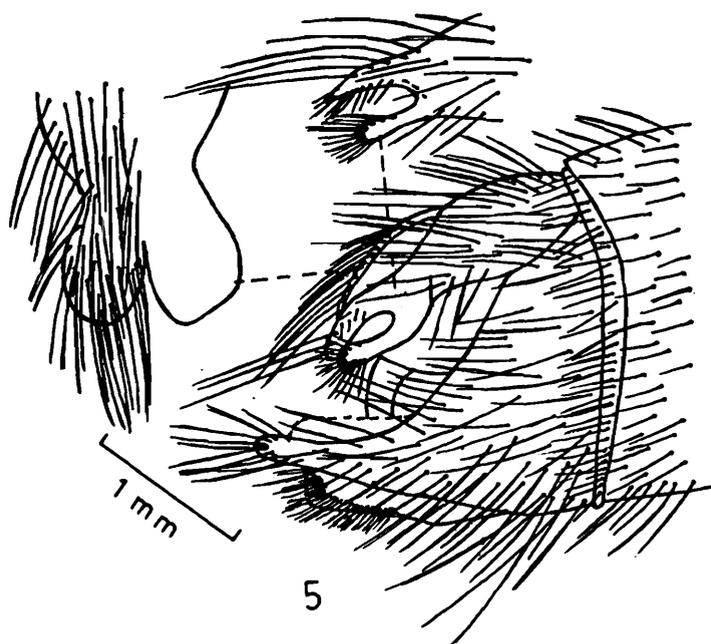


Fig. 5. *Scylaticus godavariensis* n.sp., lateral view of male genitalia.

Material· Holotype(M), Reg. No. 7514/H6, Godavari Dist.. Kannapuram Manchurulu, 21.ii.1986, Coll. A.N.T Joseph and Party. Paratype (M) (wings lost), Reg. No. 7515/H6, details as in holotype.

The genus *Scylaticus* is so far represented by a single species, *S. indicus* Bromley, from

India. *S. godavariensis* n.sp. differs from it in the large size, stout built, uniformly black mid and hind tibiae, and black and pale yellow genitalia.

7 *Scylaticus indicus* Bromley

1939. *Scylaticus indicus* Bromley, *Indian J. Agric. Sci.*, 8 (6) : 864.

Material 8 (M), 1 (F), Visakhapatnam Dist. Araku Valley Ananthagiri, 900 m, 1.iii.1986, Coll. A.N.T Joseph.

Remarks The species has been already recorded from Tamil Nadu and Kerala. Here it is recorded for the first time from Andhra Pradesh.

Stenopogon Loew

1847. *Stenopogon* Loew, *Linn. Eng.*, 2 : 453.

8. *Stenopogon kherai* Joseph & Parui

1976. *Stenopogon kherai* Joseph and Parui, *Ent. Scand.*, 7 : 105.

Material 4(F), Adilabad Dist. Riwazpet Forest, 24.ii.1985, Coll. A.N.T Joseph and Ramakrishna.

Remarks In India, the species has been so far recorded from Bihar and Kerala (Joseph and Parui 1990). Here it is reported for the first time from Andhra Pradesh. It has been also recorded from Nepal (Joseph and Parui, 1991).

9. *Stenopogon pradhani* Joseph & Parui

1976. *Stenopogon pradhani* Joseph and Parui, *Ent. Scand.*, 7 : 106.

Material 1(M), Khamam Dist., 13/30 mile stone on Kothagudem Yellandu Road, 8.ii.1985, Coll. Joseph and Ramakrishna; 1(M), 1(F), Adilabad Dist. Nirmal Forest, 22.ii.1985, Coll. A.N.T Joseph and Ramakrishna.

Remarks In India the species has so far been recorded from Jammu and Kashmir and Karnataka (Joseph & Parui, 1994). Here it is recorded for the first time from Andhra Pradesh. It has been recorded from Sri Lanka also by Joseph and Parui (1984a).

Damalis Fabricius

1805. *Damalis* Fabricius, *Systema antliatorum*, : 147.

10. *Damalis dattai* n. sp. (Fig.6)

Small black species with yellowish-brown and black mixed legs and hyaline wings. Male length 8 mm. wing 8 mm.

Male : *Head* broader than thorax, black, scarcely tomentose; mystax a transverse row of 4 pale yellow, elongate hairs; fronto-orbital plate bare, ocellar bristles weak, postcranium with sparse black and pale yellow hairs. Antenna black with the distal half of style white, scape and pedicel with pale yellow hairs, scape slightly shorter than pedicel. Palpus and proboscis black with pale yellow and white hairs.

Thorax black; pronotum white haired, hairs dense on sides; scutum black with the border on posterior half yellowish-brown, mediolongitudinal stripe absent, vestiture pale yellow and black; scutellar disc with a few, median, white hairs, border with long white hairs, pleura grey tomentose, metapleuron with long, pale yellow and white hairs. Haltere brown.

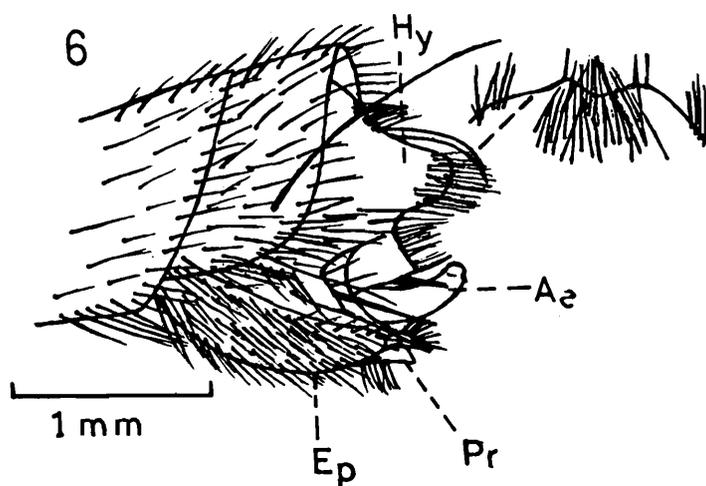


Fig. 6. *Damalis dattai* n.sp., lateral view of male genitalia.

Legs pale yellow, yellowish-brown and black; coxa and trochanter black, fore femur black with an apical yellowish-brown mark, mid femur similar, but area of yellowish-brown more, hind femur with basal and distal yellowish-brown and medially black; tibia yellowish-brown with black distally, the yellowish-brown increases from fore to hind tibia so much so only apex black in hind tibia, tarsus black, vestiture pale yellow with some black hairs also, bristles black; hind trochanter swollen distally and bears long pale yellow and black hairs, hind femur thickened slightly beyond base, distal half bearing anteroventral and posteroventral row of bristly spines.

Wing hyaline.

Abdomen black, sides of basal terga with long white hairs, vestiture white and pale yellow. Male genitalia (Fig. 6) yellowish-brown, hypandrium with a pair of black bristles at lower angle and another two on median projection.

Material · Holotype (M), Reg. No. 7516/H6, Warangal Dist. Pakhal Forest, 4.vii.1985, Coll. P. Parui.

It is generally similar to *Damalis mercaraensis* (Joseph and Parui) from which it differs in the absence of mediolongitudinal stripe and in the structural details of hypandrium. The fly is named in honour of Dr. M. Datta, in-charge of Diptera Section of the Zoological Survey of India, Calcutta.

11. *Damalis mercaraensis* (Joseph & Parui)

1984. *Xynomyza mercaraensis* Joseph and Parui, *Ent. Scand.*, **15** : 447.

Damalis mercaraensis (Joseph & Parui) New Comb.

Material 1(M), 1(F), Kurnool Dist. Nandyal Gajalpalli Forest Rest House, 22.vi.1985; 4(M), 4(F), Warangal Dist. Pakhal Forest, 3.vii.1985; 7 (M), 11(F), Pakhal Forest, 4.vii.1985; 14(M), 7(F), Pakhal Forest, 5.vii.1985; all Coll. P. Parui.

Stichopogon Loew

1847. *Stichopogon* Loew, *Linn. Ent.*, **2** : 499.

12. *Stichopogon gymnurus* Oldroyd

1948. *Stichopogon gymnurus* Oldroyd, *Ent. Month. Mag.*, **84** : 262.

Material 2(M), 4(F), Visakhapatnam Dist. : Lakhimpatti Rajupeta, 23.ii.1986; 1(M), 3(F), Palavaram Beach, 23.ii.1986; 7(M), 16 (F), Araku Valley : Ananthagiri, 900 m. 28.ii.1986; 2 (M), 3 (F), Vizianagram Dist. Thinnukarja Forest, 4.iii.1986, all Coll. A.N.T Joseph.

Remarks The species has so far been recorded from Tamil Nadu. Here it is reported for the first time from Andhra Pradesh. It has also been recorded from Sri Lanka.

13. *Stichopogon inaequalis* (Loew)

1847. *Dasyopogon inaequalis* Loew, *Linn. Ent.*, **2** : 505.

1948. *Stichopogon inaequalis* : Oldroyd, *Ent. Month. Mag.*, **84** : 262.

1983. *Stichopogon inaequalis* : Joseph and Parui, *Orient. Insacts*, **17** : 325.

Material 1(M), West Godavari Dist. Eluru Tamlaru River bed, 16.ii.1986; 6 (F), Visakhapatnam Dist. : Lakimpatti . Rajupeta, 23.ii.1986; 1(M), Araku Valley : Anathagiri, 900 m, 1 .iii.1986; 1(M), 1(F), Visakhapatnam Sea shore, 1 .iii.1986; 1(M), 1(F), Vizianagaram Dist. Bobbli Gurgi, 3.iii.1986; all Coll. A.N.T Joseph.

Remarks In India the species has been reported from Tamil Nadu and Bihar (Oldroyd, 1948). Z.S.I. possesses 3 specimens from Maharashtra. It is recorded for the first time from Andhra Pradesh. It has also been reported from Sri Lanka (Oldroyd, 1948).

14. *Stichopogon meridionalis* Oldroyd

1948. *Stichopogon meridionalis* Oldroyd, *Ent. Month. Mag.*, **84** : 261.

Material 5(M), 19 (F), West Godavari Dist. Eluru Tamlaru River bed, 13-16.ii.1986; 1(M), Visakhapatnam Sea Shore, 1.iii. 1986; 7 (F), Vizianagaram Dist. Bobbli Gurgi,

3.iii.1986; 2(M), Parbatipuram Thinnukurja Forest, 4.iii.1986, all Coll. A.N.T Joseph.

Remarks The species is recorded for the first time from Andhra Pradesh. It has already been reported from Tamil Nadu, Karnataka and Bihar from India and from adjoining country Sri Lanka (Oldroyd, 1948).

15. *Stichopogon mahatoi* sp. n. (Fig. 7)

A small, orange and black species with legs wholly orange or mid and hind femora with black marking, and light brown wings; female lamella without hair tuft. Female length 7-8 mm, wing 5 mm.

Female : *Head* as broad as thorax, black, sparsely grey tomentose; mystax pale yellow; fronto-orbital plate bare, ocellar bristles pale yellow, postocular bristles pale yellow and confined to above, postcranium mostly bare but below white haired, postgena with dense white hairs. Antenna orange with style black, first flagellomere longer than combined length of scape and pedicel. Palpus dark brown and yellowish-brown mixed, proboscis black, both white haired.

Thorax orange with black marking, sparsely grey tomentose; pronotum with a transverse row of white bristly hairs; scutum with a broad incomplete mediolongitudinal black stripe, lateral black spots faintly marked; chaetotaxy 1 notopleural, 1 postalar, 1 supra-alar; vestiture sparse white hairs, bristles pale yellow; scutellar disc bare, hind border with hairs and 4 pale yellow bristles; pleura sparsely grey tomentose; karatergite with a transverse row of long, bristly white to pale yellow hairs. Haltere with pale yellow to orange head, and pale yellow to dark brown stalk.

Legs wholly orange or with black marking on mid and hind femora, the intensity and extent of black colour quite variable, vestiture and bristles white.

Wings light brown.

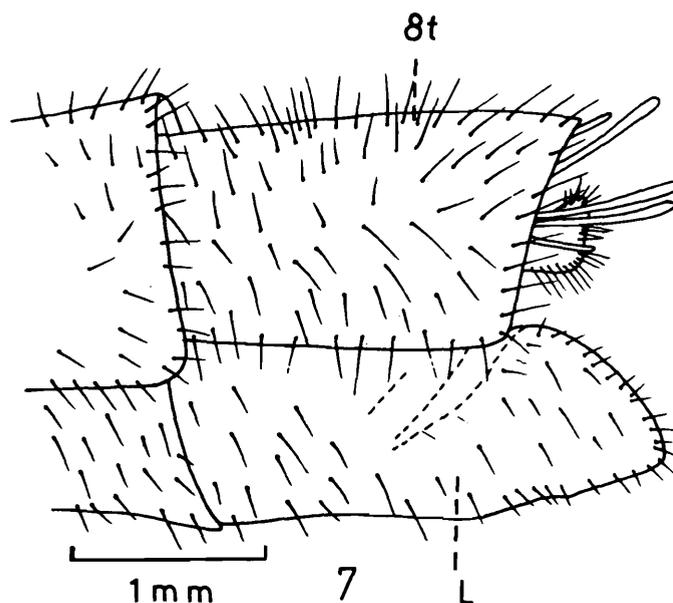


Fig. 7. *Stichopogon mahatoi* n.sp., lateral view of female genitalia.

Abdomen particoloured orange and black, tergum 1 black and orange to varying extent, terga 2-5 or rarely even upto 7 with large median, triangular shaped black marking and rest orange, remaining terga wholly black, tergum 1 laterally with a bunch of pale yellow hairs, a few of which form bristles, vestiture black and pale yellow. Female genitalia (Fig. 7) with tergum 8 bearing a circlet of 10 spines; lamella without hair tuft, not tomentose.

Material · Holotype (F), Reg. No. 7517/H6, Nalgonda Dist. Nagarjunkonda, 26.ix.1985, Coll. P. Parui. Paratypes 2 (F), Reg. Nos. 7518/H6, 7519/H6 details as in holotype; 2(F), Reg. Nos. 7520/H6, 7521/H6, Warangal Dist. Pakhal Forest Rest House, 4.vii.1985, Coll. P. Parui.

According to the key to the Indian species of *Stichopogon* Loew by Joseph and Parui (1988), *S. mahatoi* n. sp. runs to the couplet 3 and is closely similar to *S. tomentosus* Oldroyd from which it can be easily separated by the shape of lamella, which is also not tomentose. It is named after our colleague, Sri D. N. Mahato, who has collected many interesting robberflies.

16. *Stichopogon mukherjeei* n.sp. (Figs. 8)

A tiny black species with dense grey tomentum, pale yellow or pale yellow and black legs, and light brown tinged wings; female lamella without hair tuft. Male length 6 mm, wing 4-5 mm; female 6 mm, wing 4 mm.

Female Head broader than thorax, dense greyish-white tomentose; mystax straw coloured; fronto-orbital hairs and ocellar hairs white, postocular bristles white and confined to above, postcranium with sparse white hairs and also with a few pale yellow bristles above, postgena white haired. Antenna black, grey tomentose, distal half or more of pedicel with dense greyish-white tomentum, first flagellomere much longer than the combined length of scape and pedicel. Palpus and proboscis black with white hairs.

Thorax black with dense greyish-white or greyish-yellow tomentum; pronotum with a transverse row of white or pale yellow bristles; scutum with a narrow mediolongitudinal

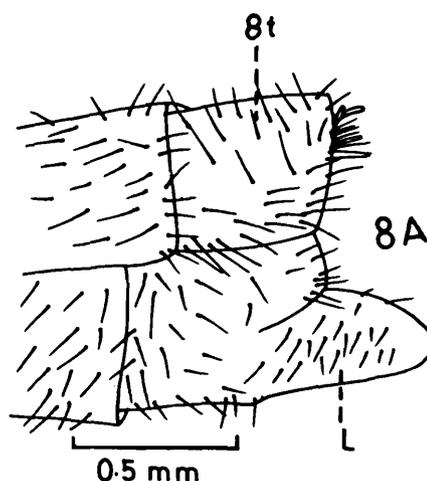


Fig. 8. A. *Stichopogon mukherjeei* n.sp., A, female genitalia

black stripe extending from anterior border to transverse suture, laterally with or without two, narrow, brown, short stripes; chaetotaxy 1 notopleural, 1 postalar, 1 supra-alar; vestiture and bristles white; scutellum on border with long, white hairs, and a row of long, white bristly hairs; karatergite with a transverse row of long white bristles; pleura with dense grey tomentum. Haltere white.

Legs pale yellow, in holotype hind tibia apically dark brown, and terminal tarsal segment in all legs black, in paratype femur basally and apically pale yellow while the rest black, apex of hind tibia dark brown, terminal tarsal segments in fore and mid legs and terminal and preceding 2 tarsal segments in hind leg black; vestiture and bristles white.

Wing light brown tinged, but basally still lighter coloured.

Abdomen black, grey tomentose, hind border of tergum narrowly white bordered, terga 1-3 laterally with long, white hairs, a few of which well developed and form bristly hairs on tergum 1, vestiture white. Female genitalia (Fig. 8A) illustrated, lamella pale yellow while rest black, tergum 8 bearing 4 spines; lamella without hair tuft.

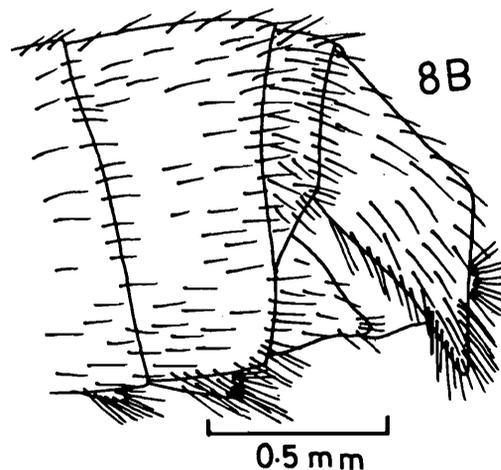


Fig. 8. B. lateral view of male genitalia.

Males: Similar but with the following differences comparatively darker coloured, in one paratype scutum with a broad mediolongitudinal black stripe but without lateral brown stripes, in the other vice versa; wing comparatively more brownish; leg colour like that of paratype male, terga 2-7 with median black marking to varying extent which in most cases triangular shaped. Male genitalia (Fig. 8B) illustrated.

Material: Holotype (F), Reg. No. 7522/H6, West Godavari Dist. Eluru Tamlaru River bed, 13.ii.1986, Coll. A.N.T Joseph and party. Paratypes 1(F), □Reg. No. 7523/H6, rest of details as in holotype; 1(F), 1(M), Reg. Nos. 7524/H6, 7525/H6, Visakhapatnam Dist. Sanivaram Forest, 29.ii.1986, Coll. A.N.T Joseph and party.

Of all the known Indian species of the genus *Stichopogon*, *S. mukherjeei* n.sp. is closer to *S. indicus* Joseph and Parui from which it differs in grey colouration, black antennae and

differences in the shape of female genitalia, especially lamella and tergum 8. It is named in honour of our colleague, Smt. Manu Mukherjee, in Diptera Section of the Zoological Survey of India, Calcutta.

17. *Stichopogon ramakrishnai* Joseph & Parui

1988. *Stichopogon ramakrishnai* Joseph and Parui, *Orient. Insects*, **22** : 92.

Material· 2(M), 2 (F), Vizianagram Dist. Bobbili Gurji, 3.iii.1986, Coll. A.N.T Joseph.

Remarks: The specimens were collected along with the type material, but was misplaced.

***Michotamia* Macquart**

1938. *Michotamia* Macquart, *Dipt. Exot.*, **1** (2) : 72.

18. *Michotamia aurata* (Fabricius)

1794. *Asilus auratus* Fabricius, *Ent., Syst.*, **4** : 387.

1975. *Michotamia aurata* : Oldroyd, *A Catalog of Diptera of the Oriental Region*, **2** : 130.

1983c. *Michotamia aurata* : Joseph and Parui, *Orient. Insects*, **17** : 327.

Material· 1(M), 5 (F), Hyderabad, 15.x.1985, Coll. Joseph and Ramkrishna; 1(M) 1 (F), West Godavari Dist. Eluru Tamaru River bed, 13.ii.1986; 1(M), Eluru Vetluru, 16.ii.1986; 2(M), 2(F), Gopalpuram, 20.ii.1986; 2(M), 2(F), Dorarpalli, 20.ii.1986; 5 (M), 3 (F), Visakhapatnam Dist. Bondavidi, 26.ii.1986; 2(F), Vizianagram Dist. Bobbili Gurji, 3.iii.1986; all Coll. A.N.T Joseph.

Remarks It is widely distributed in India and is a cosmopolitan species.

19. *Michotamia fuscifemorata* Joseph & Parui

1984. *Michotamia fuscifemorata* Joseph and Parui, *Rec. zool. Surv. India*, Occ. Paper No. 66 : 26.

Material 1(M), Visakhapatnam Dist. Sanivaram Forest, 24.ii.1986, Coll. A.N.T Joseph.

Remarks In India it has been recorded from Andhra Pradesh, Karnataka and Kerala (Joseph and Parui, 1984b), and from outside India Bangladesh and Nepal (Joseph and Parui, 1994).

***Ommatius* Wiedemann**

1821. *Ommatius* Wiedemann, *Dipt. Exot.*, **1** : 213.

20. *Ommatius indicus* Joseph and Parui

1983. *Ommatius indicus* Joseph and Parui, *Eat. Scand.*, **14** : 86.

Material 1(M), Warangal dist. Pakhal Forest, 4.vii.1985, Coll. P. Parui.

Remarks · Here it is recorded for the first time from Andhra Pradesh. The earlier recorded localities are Karnataka, Tamil Nadu and Kerala (Joseph and Parui, 1983b).

21. *Ommatius pseudojabalpurensis* n.s.p. (Fig. 9)

A comparatively small black species with black and pale yellow legs, hind femur stout in males, and brown wings. Male length 9-11 mm, wing 7-8 mm; female length 9-11 mm, wing 7-8 mm.

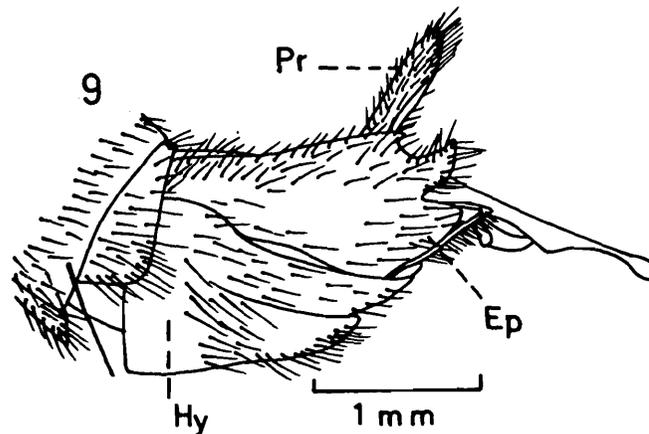


Fig. 9. *Ommatius pseudojabalpurensis* n.sp., lateral view of male genitalia.

Males Head black with dense greyish-yellow or greyish-white tomentum; mystax pale yellow with a few black bristles above, fronto-orbital hairs black, ocellar bristles black, postocular bristles mostly black but 2 or 3 pale yellow below, postcranium and postgena white haired. Antenna black, scape and pedicel with black hairs, former also with 1 or 2 black bristles, pedicel about two-thirds length of scape or slightly more, first flagellomere equal to or longer than scape. Palpus and proboscis black, former white and pale yellow haired, latter white haired.

Thorax black with greyish-yellow and greyish-white tomentum; pronotum white haired, medially with a transverse row of 4 pale yellow or black bristles; scutum with a mediolongitudinal black stripe extending from anterior border to middle of transverse suture and hind border, the stripe divided by a median, narrow, greyish-yellow stripe laterally with 2 large black spots on each side; chaetotaxy 2 notopleural, 1 postalar, 1 supra-alar, 3-5 dorsocentral anterior to scutoscutellar suture; vestiture black but on sides white, bristles black; scutellar disc with sparse white hairs and border with 2 black bristles; karatergite with a transverse row of pale yellow or black or mixed bristles, anepimeron with 1 black bristle. Haltere pale yellow to yellowish-brown.

Legs black and pale yellow with stout hind femur; coxa and trochanter black, fore femur apically pale yellow and remainder black, mid and hind femora black, tibia pale yellow but hind tibia apically dark brown, tarsus pale yellow with apex of tarsomeres black; fore and mid femora ventrally with dense white hairs, hind femur with an anteroventral row of short, spiny bristles, similar bristles present more or less in a row posteriorly, and about another 5 in a row

anteriorly; vestiture black, pale yellow and white, bristles black and pale yellow.

Wing brown, but medially lighter coloured.

Abdomen black, tergum 1 laterally with a bunch of white or pale yellow hairs, a few of which form bristles, tergum 2 with some long, pale yellow hairs posterolaterally, vestiture pale yellow. Male genitalia (Fig. 9) black, with black and pale yellow hairs.

Females: Similar but with the following differences hind femur not thickened; femur and tibia pale yellow except hind tibia apically dark brown. Female genitalia black, sternum 8 ending in very short, one median and two lateral projections; tergum 8 with 2 black bristles on each side, cercus broadly obtuse with pale yellow hairs.

Material Holotype (M), Reg. No. 7526/H6, Hyderabad Manjira Barage, 6.viii.1986, Coll. A.N.T Joseph. Paratypes 9 (M), 9 (F), Reg. Nos. 7527/H6 to 7544/H6, rest of data as in holotype; 1(M), 1(F), Reg. Nos. 7545/H6, 7546/H6, Hyderabad Chilkur Deer Park, 4.iv.1986, Coll. A.N.T Joseph.

It is closely allied to *Ommatius jabalpurensis* Joseph and Parui from which it differs in the comparatively stout hind femur and shape of aedeagus.

22. *Ommatius ramakrishnai* n. sp. (Fig. 10)

A small black species with black and pale yellow to yellowish-brown legs, light brown tinged wings and distinctive epandrium. Male length 5-6 mm, wing 4 mm; female 6 mm, wing 5mm.

Males *Head* black infuscated with grey tomentum; mystax white below and black above with their extent quite variable, fronto-orbital hairs and ocellar bristles black; postcranium sparsely grey tomentose medially and densely grey tomentose laterally, postocular bristles black above and white below. Antenna black, scape and pedicel with black bristles, scape slightly shorter than pedicel, first flagellomere subequal to pedicel. Palpus and proboscis black with white hairs.

Thorax black with sparse grey or greyish-yellow tomentum; pronotum white haired and with 1 or 2 pale yellow or pale yellow and black bristles on each side; scutum with the

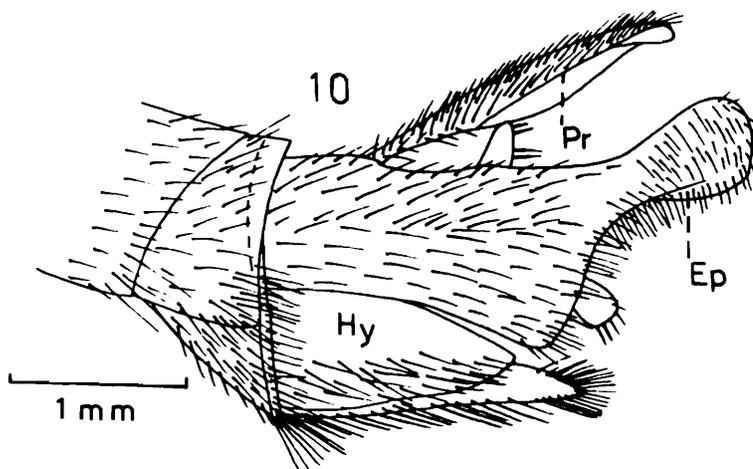


Fig. 10. *Ommatius ramakrishnai* n.sp., lateral view of male genitalia.

mediolongitudinal stripe faintly marked from anterior border to beyond middle of transverse suture and hind border, laterally with three faint black spots in a longitudinal row, scutum comparatively with more tomentum on sides; chaetotaxy 2 notopleural, 1 postalar, 1 supra-alar, 2-3 dorsocentral anterior to scutoscutellar suture; vestiture and bristles black and white; scutellar border with a pair of white bristles, disc with sparse white to pale yellow hairs; karatergite with a few long, white to pale yellow bristly hairs, 2-3 similar hairs also present on meron. Haltere pale yellow.

Legs black and pale yellow to yellowish-brown; coxa, trochanter and femur black, tibia pale yellow to yellowish-brown, in some cases apex dark brown, basitarsus pale yellow to yellowish-brown with apex dark brown, rest of tarsus dark brown, vestiture white and black, bristles predominantly black with a few white ones also.

Wing light brown tinged, but basally hyaline.

Abdomen black, tergum 1 laterally with a bunch of long, white hairs, 3-4 of which form bristly hairs, vestiture black and white. Male genitalia (Fig. 10) black with black hairs, epandrium distinctive.

Females Similar but with the following differences : first flagellomere slightly longer than pedicel; bristles of scutellar border pale yellow in one paratype. Female genitalia black with black and a few pale yellow hairs, eighth sternite apically wavy and with a pair of well developed bristles postero-laterally, cercus broadly obtuse at apex with pale yellow and black hairs.

Material : Holotype (M), Reg. No. 7547/H6, Warangal Dist. Pakhal Forest Rest House Compound, 4.vii.1985, Coll. P. Parui and party. Paratypes 2(M), 4 (F), Reg. Nos. 7548/H6 to 7553/H6, details as in holotype; 1(M), Reg. No. 7554/H6, Visakhapatnam Dist. Sanivaram Forest, 24.ii.1986, Coll. A.N.T Joseph.

It can be distinguished from all the other known Oriental species by the distinctive male genitalia, especially epandrium, together with black femora. It is named in honour of our colleague Dr. Ramakrishna, Scientist-B, Zoological Survey of India, Hyderabad, who collected many interesting robberflies from Andhra Pradesh.

***Clephydroneura* Becker**

1925. *Clephydroneura* Becker, *Ent. Mitt.*, 14 : 68.

23. *Clephydroneura brevipennis* Oldroyd

1938. *Clephydroneura brevipennis* Oldroyd, *Ann. Mag. nat. Hist.*, (11) 1 : 469.

Material: 1(M), 1(F), Visakhapatnam Dist. Chintapalli, 25.ii.1986. Coll. A.N.T Joseph.

Remarks The species was described from Kerala. The present authors subsequently recorded it again from Kerala (1979). It is the third record of the species and for the first time from Andhra Pradesh.

24. *Clephydroneura pulla* Oldroyd

1938. *Clephydroneura pulla* Oldroyd, *Ann. Mag. nat. Hist.*, (11) 1, 467.

Material 4(M), 2(F), Hyderabad Bodouppal, 24.ix. 1985, Coll. A.N.T Joseph and Ramakrishna.

Remarks The species was described from Andhra Pradesh. Later it was recorded from Tamil Nadu and Karnataka (Joseph and Parui, 1979, 1984b).

25. *Clephydroneura singhi* n. sp. (Fig. 11)

A medium yellowish-brown and black species with wings hyaline and dilated at foreborder, and pale yellow legs with dark brown marking. Male length 17 mm, wing 10-11 mm; female length 16-17 mm, wing 10-11 mm.

Males *Head* as broad as thorax, black with grey tomentum; mystax white, fronto-orbital plate with white bristles, ocellar bristles white. Antenna with scape and pedicel pale yellow, first flagellomere and scape dark brown, scape with white and black bristles, pedicel with black bristles only, pedicel slightly less than half of the length of scape, first flagellomere slightly shorter than scape. Palpus and proboscis black with white hairs.

Thorax yellowish-brown with black marking; pronotum white haired; scutum with a black mediolongitudinal stripe extending from anterior border to midway between transverse suture and hind border, the stripe broadly divided by yellowish-brown, sides with 3 black spots in a longitudinal row; chaetotaxy : 2 notopleural, but in one male an additional seta present on one side, 1 postalar, 2 supra-alar, 2-3 prescutellar dorsocentral; vestiture and bristles black, also with a few white hairs laterally, anepisternum, katepisternum and meron with black marking in holotype but indistinct in paratypes, scutellum with a pair of black bristles (but only 1 in holotype) on border. Haltere pale yellow with dark knob.

Legs pale yellow with dark brown marking, coxa and trochanter pale yellow, femur pale yellow with dorsoapical dark brown mark, the area and intensity of which increase from fore

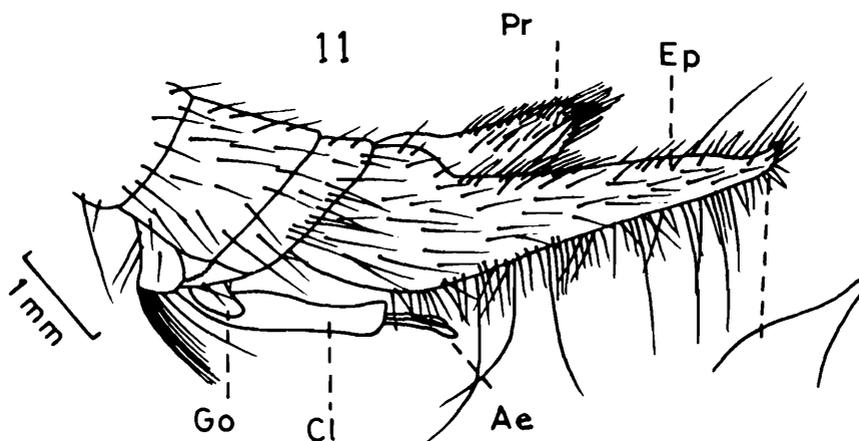


Fig. 11. *Clephydroneura singhi* n.sp., lateral view of male genitalia.

to hind femur, tibia pale yellow with apical dark brown, tarsus pale yellow with dark brown apex, the latter colour dominant in hind tarsus, mid and hind femora with an anteroventral row of black bristles, vestiture white with a few black hairs also, bristles black.

Wing hyaline, foreborder dilated, discal cell strongly constricted.

Abdomen black with pale yellow laterally, grey tomentose, varying number of terga with median and lateral elongate, dark brown spots extending from base to three-fourths distance, one paratype greasy and the marking not discernible, tergum 1 with a bunch of hairs laterally, succeeding tergites with a pair of white bristles posterolaterally. Male genitalia (Fig. 11) black, white haired, epandrium elongate.

Females : Similar but with the following differences chaetotaxy in one paratype only 1 supra-alar; dark brown marking of femur comparatively lighter coloured; abdominal marking very faint. Genitalia black, elongate, eighth sternite apically ending as semicircular lobes, cercus with long, yellow hairs distally.

Material Holotype (M), Reg. No. 7555/H6, West Godavari dist. Kannapuram Munchurulu, 18.ii.1986, Coll. A.N.T Joseph and Party. Paratypes 2(M), 1(F), Reg. Nos. 7556/H6 to 7558/H6, details similar to holotype except date of collection 21.ii.1986; 1(M), Reg. No. 7559/H6, details as in holotype.

It is closely similar to *Clephydroneura gravelyi* Joseph and Parui differing from which in the colouration of femur and the elongate and rather pointed epandrium. In male genitalia *C. singhi* n.sp. resembles to *C. bannerghattaensis* Joseph and Parui, but otherwise a quite distinct species. It is named in honour of Dr. Asket Singh, Joint Director-in-Charge, Zoological Survey of India, Calcutta, for the various favours shown to us.

26. *Clephydroneura wilcoxi* Joseph and Parui

1979. *Clephydroneura wilcoxi* Joseph and Parui, *Ent. Scand.*, **10** : 35.

Material : 2(M), 2(F), Hyderabad Uppal, 20.ix.1984, Coll. A.N.T Joseph; 3 (M), 1(F), Kurnool Dist. : Nandyal Gajalpalli Forest Rest House compound, 22.vi.1985, Coll. P. Parui; 3 (M), 2 (F), Warangal Dist. Pakhal Forest House compound, 4.vii.1985, Coll. A.N.T Joseph.

Remarks . This species has so far been reported from Andhra Pradesh, Karnataka and Tamil Nadu (Joseph and Parui, 1984b). It is the second report from Andhra Pradesh.

Philodicus Loew

1848. *Philodicus* Loew, *Linn. Ent.* **3** : 391.

27. *Philodicus femoralis* Ricardo

1921. *Philodicus femoralis* Ricardo, *Ann. Mag. nat. Hist.*, (9) **8** : 190.

Material 6 (M), 7 (F), Vizianagaram Dist. Bobbli Gurji, 3.iii.1986, Coll. A.N.T Joseph.

Remarks The species has been reported from Assam, Arunachal Pradesh, Bihar, Himachal Pradesh, Karnataka, Tamil Nadu, Uttar Pradesh and West Bengal (Joseph and Parui, 1994b). It was described from Burma.

28. *Philodicus jagannathi* Ramchandra Rao

1969. *Philodicus jagannathi* Ramchandra Rao, *Current Science* : 196.

Material 5 (M), 2 (F), Vizianagaram Dist. Polavaram Beach, 23.ii.1986, Coll. A.N.T Joseph.

Remarks The species was described from Orissa based on single female. It is the second report of the species, and the male is reported here for the first time. It is the first record from Andhra Pradesh.

29. *Philodicus pruthii* Bromley

1935. *Philodicus pruthii* Bromley, *Rec. Indian Mus.*, 37 : 224.

Material 7 (M), 2 (F), West Godavari Dist. Eluru Nayan Pally, 14.ii.1986; 1(M), Eluru Palasgudam, 15.ii.1986; 1(M), Kanna Puram Munchurulu, 18.ii.1986, all Coll. A.N.T Joseph.

Remarks So far it is only recorded from Southern India Andhra Pradesh, Karnataka and Tamil Nadu; and from neighbouring country Sri Lanka (Joseph and Parui, 1994b).

Promachus Loew

1848. *Promachus* Loew, *Linn. Ent.*, 3 : 190.

30. *Promachus duvaucelii* (Macquart)

1838. *Trupanea duvaucelii* Macquart, *Dipt. Exot.*, 1 (2) : 97.

1983c. *Promachus duvaucelii* : Joseph and Parui, *Orient. Insects*, 17 : 366.

Material : 21(M), 16 (F), Hyderabad Himayat Sagar Chilkur Deer Park, 16.x.1985, Coll. A.N.T Joseph and Ramakrishna; 1(M), 2(F), Chilkur Deer Park, 3.xii.1985; 1(M), 1(F), Hyderabad Narapalli, 15.xii.1985, all Coll. A.N.T Joseph; 2(M), 1(F), Hyderabad Bodouppal, 4.ix.1986, Coll. Satyarani; 2(M), 2 (F), Shameerpet Deer Park, 12.ix.1986, Coll. Satyarani.

Remarks It is one of the widely distributed species of India and is recorded from most of the states of India.

31. *Promachus maculatus* (Fabricius)

1775. *Asilus maculatus* Fabricius, *Syst. Ent.* : 794.
 1838. *Trupanea flavibarbis* Macquart, *Dipt. Exot.*, 1 (2) : 96.
 1849. *Asilus copilus* Walker, *List Dipt. Colln. Br. Mus.*, 2 : 389.
 1975. *Promachus maculatus* : Oldroyd, *A Catalog of Diptera of the Oriental Region*, 2 : 153.
 1983c. *Promachus maculatus* : Joseph and Parui, *Orient. Insects*, 17 : 367.

Material 1(M), West Godavari Dist. Eluru Gopalapuram, 20.ii.1986; 3(M), 5(F), Visakhapatnam Dist. Sanivaram Forest 24.ii.1986, all Coll. A.N.T Joseph.

Remarks In India it has been recorded from Bihar, Orissa, Karnataka, Tamil Nadu and Uttar Pradesh. Here it is recorded for the first time from Andhra Pradesh. From outside India, it is reported from Sri Lanka, Indonesia and Europe.

32. *Promachus yerburiensis* Ricardo

1920. *Promachus yerburiensis* Ricardo, *Ann. Mag. nat. Hist.*, (9) 5 : 220.
 1960. *Bactria yerburiensis* : Rattan Lal, *Catalogue of Indian Insects*, Part 19-Asilidae : Diptera : 22.
 1975. *Promachus yerburiensis* : Oldroyd, *A Catalog of Diptera of the Oriental Region*, 2 : 155.
 1983c. *Promachus yerburiensis* : Joseph and Parui, *Orient. Insects*, 17 : 370.

Material: 2(M), 4(F), Kammam Dist. Yellandu, 7.ii.1985; 2(M), 3(F), Warangal Dist. Pakhal Forest, 10.ii.1985; 3(M), 4(F), Pakhal Forest, 11.ii.1985; 2(M) 1(F), Kothagudam Forest, 12.ii.1985; 1(M), 1(F), Karimnagar Dist.. Thirumalapur Forest, 15.ii.1985; 3 (M), 2(F), Surampet Forest, 16.ii.1985; 1(M), 3 (F), Adilabad Dist. Mallampet Forest; 18.ii.1985; 6 (M), 9(F), Jaipur Forest, 19.ii.1985; 8(M), 6(F), Arsnath Forest Mancherral Range, 20.ii.1985; 7 (M), 4(F), Nirmal Forest, 22.ii.1985; 3(M), 1(F), Dhimadurthi, 22.ii.1985; 4(M), 3(F), Khanapur forest, 23.ii.1985; 4(M), 5(F), Riwapet Forest and Kadam Forest 24.ii.1985; all Coll. A.N.T Joseph and Ramakrishna. 1(M), 2(F), West Godavari Dist. : Nayam Palli, 14.ii.1986; 5(M), 3 (F), Eluru : Palasgudam, 15.ii.1986; 1(M), 1(F), Eluru Jellaru Dam, 17.ii.1986; 6 (M), 1(F), Kannapuram :Munchurulu, 18.ii.1986; 6 (M), 5(F), Kannapuram Jeedipudi Jellaru Dam, 19.ii.1986; 8(M), 6 (F), Dovaripalli and Gopalpuram, 20.ii.1986; 3 (M), 1(F), Kannapuram Munchurulu, 21.ii.1986; 1(M), Kannapuram Sanivaram Forest, 24.ii.1986; 1(M), Visakhapatnam Dist. · Bondavidi, 26.ii.1986; 3(M), Araku Valley Ananthagiri, 900 m, 1.iii.1986; 7 (M), 6 (F), Vizianagaram Dist. Parbati Puram Thinnukarja Forest, 4.iii.1986; 3(M), 2(F), Ramchandra Puram, 5.iii.1986; 1(M), 1(F), Hyderabad :Bodouppal, 14.iii.1986; 1(F), Hyderabad Shameerpet, 12.ix.1986; all Coll. A.N.T Joseph.

Remarks · The species has so far been reported from Andhra Pradesh, Karnataka, Tamil Nadu, Kerala, Orissa and Assam.

SUMMARY

This paper reports 32 species of Asilidae from Andhra Pradesh. Of these 11 species are new, viz. *Lobus pandai*, *Nusa andhraensis*, *Nusa balraji*, *Oldroydia costata*, *Scylaticus*

godavariensis, *Damalis dattai*, *Stichopogon mahatoi*, *Stichopogon mukherjeei*, *Ommatius pseudojabalpurensis*. *Ommatius ramakrishnai* and *Clephydroneura singhi*, and male of *Philodicus jagannathi* Rao is recorded here for the first time.

ACKNOWLEDGEMENTS

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ABBREVIATIONS

Ae, aedeagus; Cl, clasper; Ep, epandrium; Go, gonocoxite; Hy, hypandrium; L, lamella; Lo, lobos; Pr, proctiger; 8t, eighth tergite.

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