ON SOME ASILIDAE (DIPTERA) FROM INDIA PRESENT IN THE SMITHSONIAN INSTITUTION III

P. PARUI

Zoological Survey of India
New Alipore, Block-M
Calcutta-700 053

and

A. N. T. JOSEPH*

Marine Biological Station
Zoological Survey of India
100 Santhome High Road
Madras-600 028.

INTRODUCTION

This is the third and last part of a series of papers on Asilidae from India present in the Smithsonian Institution, Washington. The first and the second parts were published in 1978 and 1989 respectively. Specimens for the present study were received through the courtesy of Dr. Lloyd Knutson, Director, Insect Identification and Beneficial Insect Introduction Institute, U. S. D. A. and Mr. Gary F. Hevel. Collections Manager, Department of Entomology, Smithsonian Institution. The arrangement of genera followed in this paper is after Joseph and Parui, 1990.

The types are deposited in the Smithsonian Institution, Washington, and the Zoological Survey of India, Calcutta.

SYSTEMATIC ACCOUNT

Genus: **Lapbria Meigen**


*Retired; Present address: Nellissery House, P. O. Edathuruthi-680 703, Kerala.
1. **Laphria nathani** Joseph and Parui


*Material*: 13 ♂, 18 ♀, Tamil Nadu: Cherangode, 1060 m, v. 1950, coll. P. S. Nathan (S. W. Bromley coll. 1955); 3 ♂, 1 ♀, Cherangode, 1060 m, xi. 1950, coll. P. S. Nathan; 1 ♂, Karnataka: South Coorg: Ammathi South, 1125 m, v. 1951, coll. P. S. Nathan.

*Distribution*: Karnataka, Kerala and Tamil Nadu.

**Genus**: *Laxenecera* Macquart


2. **Laxenecera flavibarbis** Macquart


*Distribution*: Bihar, Goa, Gujarat, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

*Remarks*: This is the first record from Madhya Pradesh.

**Genus**: *Nusa* Walker

3. **Nusa karaikalensis** Joseph and Parui


*Distribution*: Pondicherry.
Genus: Microstylum Macquart


4. Microstylum ananthakrishnani Joseph and Parui


*Material*: 1 ♀, Tamil Nadu: Nilgiri hills: Cherangode, 1060 m, 15.v.1950, coll. P. S. Nathan.

*Distribution*: Karnataka and Kerala.

*Remarks*: This is the first record from Tamil Nadu.

Genus: Saropogon Loew

5. Saropogon hulli Joseph and Parui


*Distribution*: Karnataka and Kerala.

*Remarks*: This is the first record from Tamil Nadu.

Genus: Trigonomima Enderlein


6. Trigonomima anamalliensis Joseph and Parui


*Material*: 3 ♂, 16 ♀, Tamil Nadu: Nilgiri hills: Cherangode, 1060 m, coll.
P. S. Nathan; 1 ♂, Nilgiri hills: Gudalur, 1060m, iv.1959, coll. P. S. Nathan; 1 ♂, 2 ♀, Karnataka: Mudigore, 6.iv.1980, coll. Mathis and Freidberg.

**Distribution**: Kerala and Tamil Nadu.

**Remarks**: This is the first record from Karnataka.

**Genus**: *Stenopogon* Loew


7. *Stenopogon manii* Joseph and Parui


**Distribution**: Kerala and Tamil Nadu.

8. *Stenopogon raven* (Bromley)


**Distribution**: Tamil Nadu.

**Remarks**: This is the first record from Kerala.
Genus: *Damalis* Fabricius


9. *Damalis dravidica* (Joseph and Parui)


*Distribution*: Karnataka, Kerala and Tamil Nadu.

10. *Damalis fusca* Walker


*Distribution*: Karnataka, Kerala, Pondicherry, Uttar Pradesh and West Bengal.

*Remarks*: This is the first record from Tamil Nadu.

Genus: *Merodontina* Enderlein

11. *Merodontina spinulosa* Joseph and Parui


*Distribution*: Meghalaya.

Genus: *Michotamia* Macquart

12. Michotamia aurata (Fabricius)


Distribution: Andhra Pradesh, Bihar, Delhi, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Orissa, Pondicherry, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

13. Michotamia macquarti Joseph and Parui


Distribution: Uttar Pradesh.

Remarks: Here, this is the first record from Meghalaya.

Genus: Ommatius Wiedemann


14. Ommatius jabalpurensis Joseph and Parui


Material: 1 ♂, Madhya Pradesh: Jabalpur, 490 m, ix.1950, coll. P. S. Nathan.

Distribution: Madhya Pradesh and Orissa.

15. Ommatius pseudokempi Joseph and Parui


Distribution: Orissa, Rajasthan and Tamil Nadu.

Remarks: This is the first record from Pondicherry.

16. Ommatius pillai Joseph and Parui


Material: 1 ♂, Tamil Nadu: Nilgiri hills: Chirambadi, 1060m, xi.1950, coll. P. S. Nathan.

Distribution: Kerala.

Remarks: This is the first record from Tamil Nadu.

Genus: Astochia Becker


17. Astochia indica Joseph and Parui


Distribution: Karnataka.

Remarks: This is the first record from Tamil Nadu.

18. Astochia pseudoguptai Joseph and Parui


Distribution: Karnataka, Kerala, Rajasthan and Sikkim.

Remarks: This is the first record from Tamil Nadu.

Genus: Clephydroneura Becker


19. Clephydroneura apicalis Ricardo


Distribution: Karnataka, Kerala and Tamil Nadu.

20. Clephydroneura semirufa Oldroyd


Distribution: Tamil Nadu.

Genus: Machimus Loew


21. Machimus dubius Ricardo


22. Machimus montanus Ricardo


*Distribution*: Maharashtra, Tamil Nadu and Uttar Pradesh.

23. *Machimus nilgiriensis* n. sp.

A medium black species with black and pale yellow mystax and infuscate wing. 

*Male*: length 15 mm, wing 9-10 mm; female: 13 mm, wing 10 mm.

*Male*: Head as wide as thorax, black with yellow tomentum; mystax black with pale-yellow bristles in the middle; fronto-orbital and oceller bristles black; occiput with black pile and bristles; postocciput largely pale yellow pilose with a few dorsal black bristles; postgena pale yellow pilose. Antenna black except wholly yellow pedicel, bristles black; first flagellomere subequal to combined length of scape and pedicel, arista longer than flagellum. Palpus and proboscis black, the former with black and pale yellow pile and the latter with only pale yellow pile.

*Thorax* black, pale yellow tomentose; pronotum pale yellow with black pile; scutum medially with three tomentose stripes, the middle stripe short, extending to transverse suture; chaetotaxy: notopleurals 2, supra-alars 2, post-alars 2, dorsocentrals many, acrostichal absent; katepisternum with fine yellow pile; meron with a row of long, pale yellow long bristly pile; vestiture black. Scutellum brownish-yellow tomentose, disc with black pile, border with a series of black bristles. Haltere yellow.

*Leg* black; coxa with numerous long, pale, yellow pile, hind coxa with very thin, short pile; anterior two pairs of femora and tibiae with long ventral pile, hind femur with less abundant ventral pile, pile absent in hind tibia; except a few fore and mid femora devoid of bristles, hind femur with a row of anterodorsal pale yellow bristles; fore and mid tibiae with a row of dorsal bristles, hind tibia with a row of dorsal and ventral bristles; hind basitarsus with a mat of golden yellow pile.

*Wing* with apical half dark brown, basal half hyaline.
Abdomen black, tergum 1 posterolaterally with 1 or 2 black bristles and long, pale yellow pile, terga 2 and 3 laterally and sterna with pale yellow pile. Genitalia

(Fig. 1) black with concolourous pile and bristles; epandrium apically cleft ventrally at base with a few pale yellow pile.

Female: Similar with the following difference: mystax wholly black. Ovipositor yellowish-brown, longer than segments six and seven together.


Remarks: The species is closely similar to Machimus indicus Joseph and Parui but differs in the wholly black pile on scutellum, smaller size and details of male genitalia.

24. Machimus parvus Ricardo

Material: 1 ♂, 1 ♀, Tamil Nadu: Nilgiri hills; Cherangode, 1060 m, xi.1950, coll. P. S. Nathan.

Distribution: Andhra Pradesh, Karnataka, Kerala and Tamil Nadu.

Genus: Neoitamus Osten Sacken


25. Neoitamus sedlaceki Joseph and Parui


Distribution: Meghalaya.

Remarks: The species was described from Nepal.

26. Neoitamus mussooriensis Joseph and Parui


Distribution: Uttar Pradesh. This is the first record from Himachal Pradesh.

Genus: Philodicus Loew

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

27. Philodicus femoralis Recardo


Distribution: Assam, Arunachal Pradesh, Bihar, Goa, Himachal Pradesh, Karnataka, Kerala, Meghalaya, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

28. Philodicus pruthii Bromley


Distribution: Andhra Pradesh, Karnataka, Kerala, Rajasthan and Tamil Nadu.

Genus: Promachus Loew


29. Promachus jabalpurensis Joseph and Parui


Material: 2 ♂, Madhya Pradesh: Jabalpur, 460 m, x.1957; 1 ♂, Tamil Nadu: Coimbatore, xi.1957, all coll. P. S. Nathan.

Distribution: Madhya Pradesh.

Remarks: This is the first record from Tamil Nadu.

30. Promachus smithi n. sp.

A robust species with uniformly brown wing, yellow and black leg, black abdomen with broad yellow bands and shining black genitalia. Male: length 30 mm, wing 22 mm; female: length 30-32 mm, wing 24 mm.

Males: Head broader than thorax, black, covered with dense pale yellow tomentum; mystax yellowish-white with scattered black bristles; fronto-orbital bristles
black with a few pale yellow pile near base of antenna; ocellar bristles black; postcranium with pale yellow pile: postocular bristles and bristles of postgena pale yellow. Antenna black, pedicel and base of first flagellomere pale yellow, scape and first flagellomere equal in length, arista as long as combined length of scape and pedicel. Palpus and proboscis black, the former with black and yellow bristles, the latter with long black and pale yellow pile.

Thorax black with dark brown tomentum; pronotum with pale yellow pile and a few scattered black pile and bristles; scutum without distinct mediolongitudinal stripes, vestiture black; chaetotaxy: notopleurals 2, supra-alars 3, post-alars 3, dorsocentraals 4 extending from behind transverse suture; scutellum with scattered black pile on disc, a few pale yellow pile at corner, border with six long black bristles and anterior to them with a row of six black bristles; katepisternum and anepisternum with long pale yellow and black pile; meron with long, pale yellow pile. Haltere dark brown.

Legs black and yellow; femora black except pale yellow posteriorly at apex, fore and mid femora with a row of ventral black bristles and a few scattered dorsal black bristles, hind femur with a row of ventral and a row of anterodorsal black bristles; tibiae yellow with dark apices, pile black ventrally, fore pair with two rows

**Fig. 2:** *Promachus smithi* n. sp.
of small dorsal black bristles, other two pairs with scattered black bristles.

*Wing* brown, first submarginal cell with a grey streak.

*Abdomen* black, terga 1-3 with long pale yellow pile laterally which being dense on first tergum, each tergum with a band of yellow tomentum at posterior margin which gradually diminishes in breadth posteriorly. Male genitalia (Fig. 2) shining black with similar pile.

*Females*: Similar but with the following differences: first flagellomere smaller than scape; genitalia black, tergum 8 elongate, cercus rectangular, shorter than tergum 9.

*Remarks*: The species is closely similar to *Promachus yerburiensis* Ricardo but differs from it by the robust size, absence of long white pile on femora and details of male genitalia.

The species is named in honour of the collector, Mr. M. E. Smith.


Genus: *Trichomachimus* Engel


31. *Trichomachimus omani* n. sp.

A rather large golden-yellow and black species with infuscated wing and reddish yellow and black legs. *Male* length 25 mm, wing 18 mm.

*Male*: Head black with greyish-yellow and yellowish-white tomentum; mystax pale yellow with a few black bristles above and on sides up to middle; fronto-orbital bristles black and pale yellow; ocellar bristles black; postcereanium with a few black bristles above, rest pale yellow; post-ocular bristles pale yellow, postgena with dense pale yellow long pile. Antennal scape black with black and pale yellow bristles; pedicel pale
yellow with black bristles, first flagellomere more than twice the length of pedicel and equal to arista. Palpus and proboscis black with black bristles on the former and pale yellow pile on the latter.

Thorax black, grey tomentose; pronotum with long pale yellow phile; scutum with lateral yellowish-grey pollinose stripe; chaetotaxy: posthumerals 2, notopleurals 2,

supra-alars 5, post-alars 3, acrostichals absent, post-sutural dorsocentrals many; vestiture and bristles black; scutellar disc with black bristly pile and some pale yellow pile, border with a row of black bristles; katapisternum with long, fine pile; anepisternum with black and pale yellow bristles; meron with long, stout bristly pile. Haltere reddish-yellow.

Legs black and reddish-yellow, femur black with black bristles and predominant
pale yellow pile, fore and hind femora with a row of posterodorsal bristles, mid femur without distinct row of bristles; tibia reddish-yellow, fore tibia ventrally with mixed long pale yellow and black bristly pile, a row of anteroventral bristles on basal half, a row of dorsal bristles on apical half and another row of ventral bristles on apical half; ventral pile of mid tibia lesser and with two rows of dorsal and two rows of ventral bristles on apical half; hind tibia bare of ventral pile and with two rows of dorsal bristles; vestiture predominantly black.

Wing dark brown but hyaline from base to posterior cells.

Abdomen black with golden-yellow pile; all terga with pale yellow pile laterally which gradually reduce in length towards tip. Male genitalia (Fig. 3) black with pale-yellow bristly pile, eighth sternum slightly produced with dense yellow and black bristly pile.


Remarks: The species is closely similar to Trichomachimus basalis Oldroyd but differs from it by the pale yellow and black mytax; all coxae with pale yellow pile; uniformly reddish-yellow tibia and details of male genitalia. It also resembles to T. opulentus (Walker) but differs in the colouration of pile on scutellum and fore tibia, and shape of eighth sternum. The species is named after the collector, Mr. P. W. Oman.

SUMMARY

Thirty two species of Asilidae belonging to 18 genera are dealt with including three new species: Machimus nilgirensis, Promachus smithi and Trichomachimus omani. Distributional records of all the species are given from India.

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