

THREE SMALL, LITTLE-KNOWN GENERA OF ASILIDAE (DIPTERA)
FROM INDIA

A. N. T. JOSEPH AND P. PARUI
Zoological Survey of India, Calcutta

ABSTRACT

One new species each of *Apoclea* Macquart, *A. rajasthanensis* n. sp., *Stichopogon* Loew, *S. indicus* n. sp., and *Lobus* Martin, *L. jairami* n. sp. are described from India and keys to the species are also given.

Apoclea Macquart, *Stichopogon* Loew and *Lobus* Martin are three small genera of Asilidae, represented in India by one species, four species and two species respectively (Oldroyd, 1975); one more new species of the last mentioned genus was recently (1983) described by us. In this paper, one new species each, of these genera, is described.

Genus *Apoclea* Macquart

Apoclea Macquart, 1838, *Dipt. exot.* 1 (2) : 119. Type-species *Asilus algirus* Linnaeus, by monotypy.

Medium to large-sized flies with dense pollen and characteristically appressed, short, hairs; wings with subcosta narrow, marginal cell relatively wide, and anterior branch of third vein generally with a short basal extension; male terminalia large, superior forceps closely apposed and laterally wholly dominate the terminalia.

KEY TO THE INDIAN SPECIES OF *Apoclea* Macquart

1. Femora black, tibiae and tarsi reddish, antennae dark brown, superior forceps of male terminalia rather long. ... *indica* Bromley
Legs and antennae uniformly yellowish-brown, superior forceps of male terminalia comparatively short. ... *rajasthanensis* n. sp.

Apoclea rajasthanensis n. sp.

(Fig. 1)

Medium sized yellowish-brown to dark brown species with yellowish-brown legs

covered with white hairs, and hyaline wings. Male: length 17 mm, wing 11 mm; female: length 18 mm, wing 12 mm.

Male: Head broader than thorax, dark brown, greyish-yellow tomentose; mystax white to pale, frons below as well as above antennae with dense pale hairs, the hairs being longer below, ocellar bristles white, hairs of occiput pale, some of which medio-laterally form bristles. Antennae yellowish-brown, bristles on segments 1 and 2 white, segment 2 longer than half of 1, segment 3 longer than 2 but shorter than 1. Palpi yellowish-brown and proboscis black, their hairs white and also with some pale ones.

Thorax dark brown to black, sparsely greyish-yellow tomentose; pronotal hairs white and pale, dense on sides; mesonotum with the mediolongitudinal stripe indistinctly marked, humeri yellowish-brown, covering hairs and bristles pale; scutellum with the disc bearing white hairs and hind border a pair of white bristles; pleura densely grey or greyish-yellow tomentose with the hairs white. Halteres yellowish-brown.

Legs yellowish-brown, covering hairs and bristles white but for a few black ones on tarsal segments.

Wings hyaline, anterior branch of third vein with a small basal extension, first posterior cell, fourth posterior cell and anal cell closed and stalked.

Abdomen yellowish-brown to dark brown, sides of tergites 1-3 with a few pale bristles, clothing hairs white. Male terminalia (Fig. 1) concoloured with the rest of abdomen, hairs white, dense.

Female: Similar, but comparatively darker coloured. Apex of ninth tergite bearing

Paratype ♀, Reg. No. 6970/H6, India : Rajasthan : Gudba, 17.v.1958, coll. T. G. Vazirani.

Genus *Stichopogon* Loew

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

Minute flies of dark colour characterised by the single transverse row of mystax above the mouth margin, frons and vertex very widely divergent, style quite short; male terminalia hood-like and turned downwards, not distinctive.

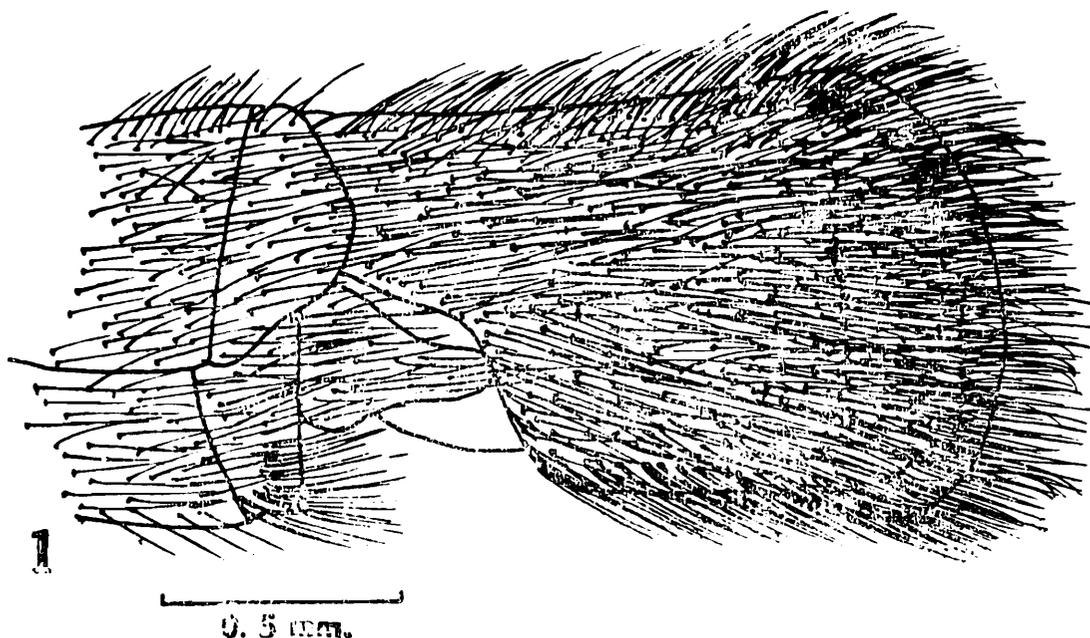


Fig. 1. *Apoclea rajasthanensis* n. sp., lateral view of male terminalia.

about eight spines of unequal size arranged in two rows on either side.

The only other species recorded under *Apoclea* from India is *A. indica* Bromley from which *A. rajasthanensis* n. sp. differs in the yellowish-brown antennae, uniformly yellowish-brown legs and comparatively short superior forceps of male terminalia.

Holotype ♂, ZSI Reg. No. 6969/H6, India : Rajasthan : Narana, 27.v.1958, coll. T. G. Vazirani.

KEY TO THE INDIAN SPECIES OF *Stichopogon* Loew (After Oldroyd 1948)

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|---|-----|--------------------------------|
| 1. Fore femora partly or wholly orange or yellow. ... | ... | 2 |
| Fore femora black contrasting with orange base of tibia. ... | ... | 3 |
| 2. Lamellae of female rather bare, with pointed tuft of golden hairs. ... | ... | <i>meridionalis</i>
Oldroyd |
| Lamellae tomentose, without tuft of hairs. ... | ... | <i>tomentosus</i>
Oldroyd |

3. Lamellae of female with a broad tuft of hairs fringing all upper margin. Mystax and face white in both sexes. ... *inaequalis* Loew
 Lamellae of female without tuft of hairs. ... 4
4. Mystax white in female and bright golden-yellow in male, antennae orange with blackish style, eighth tergite with 5-6 stout bristles. ... *gymnurus* Oldroyd
- Mystax straw coloured in both sexes, basal segments of antennae black, apical segment brown with upper side black, eighth tergite without bristles. ... *indicus* n. sp.

Stichopogon indicus n. sp.

(Figs. 2, 3)

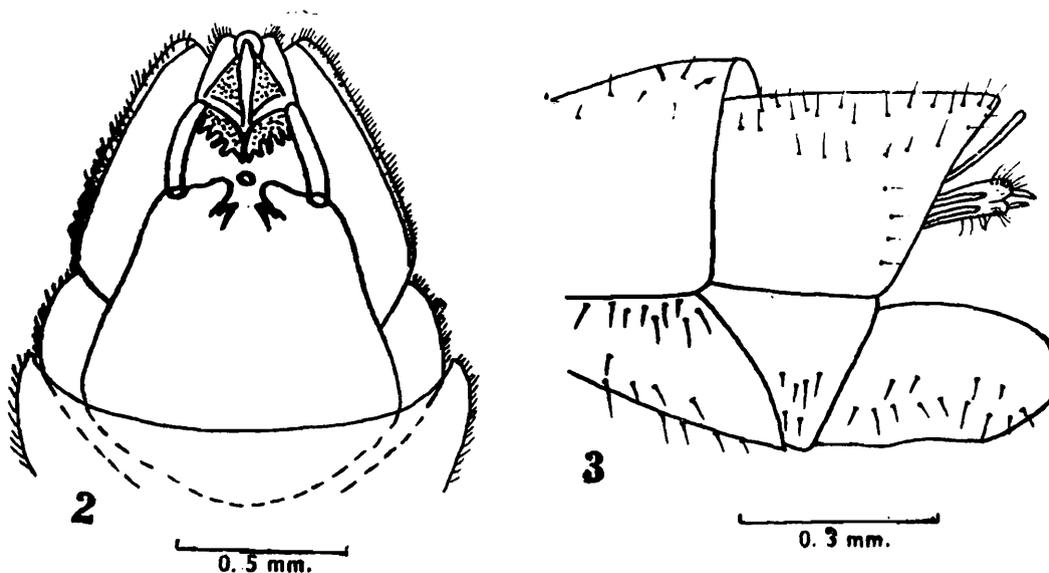
A tiny black species with black and yellowish-brown legs and lightly infuscated wings. Female : length 6-7 mm, wing 4-5 mm ; male : length 5-6 mm, wing 4-5 mm.

Female : *Head* broader than thorax, black with sparse yellowish tomentum above antennae and grey to greyish-yellow tomentum

below them ; mystax straw coloured and forming a transverse row above mouth margin, frons along sides above antennae bearing white hairs, ocellar bristles pale, upper occiput sparsely white haired and also with four pale bristles, postocular occiput white haired. Antennal segments 1 and 2 black, the latter grey tomentose with concolourous bristles, 3 brown with its upper side black, 3 much longer than the combined length of two basal segments. Palpi and proboscis black, the former bearing sparse pale hairs.

Thorax black, sparsely grey tomentose ; pronotum concolourous with the rest and bearing pale hairs anteriorly ; mesonotum with sparse, pale, clothing hairs, bristles brown ; scutellum grey tomentose, disc bare, hind border bearing pale hairs ; pleura sparsely grey tomentose. Halteres brownish tinged, stalks still lighter coloured.

Legs black and yellowish-brown ; coxa to femur black, tibia yellowish-brown with black apex, tarsal segments black with yellowish-brown basal marking on basal 2-3 segments, clothing hairs as well as bristles pale.



Figs. 2-3. *Stichopogon indicus* n. sp. ; 2, ventral view of male terminalia ; 3, lateral view of female terminalia.

Wings lightly infuscated.

Abdomen black, sides of tergites grey which occupy lesser area in posterior segments, tergite 1 on side with long pale hairs, covering hairs pale; tip of abdomen (Fig. 3) illustrated, lamellae without apical tuft of hairs.

Male: Similar but grey tomentum not so distinct; terminalia (Fig. 2) concoloured with rest of abdomen.

Stichopogon indicus n. sp. is generally similar to *S. gymnurus* Oldroyd but differing in the black basal segments of antennae, in female lamellae devoid of apical tuft of hairs, and in male eighth abdominal tergite without bristles.

Holotype: ♀, Z S I Reg. No. 6920/H6, India: Maharashtra: Ratnagiri District: Ratnagiri, 7.vii.1981, coll. P. Parui and P. H. Roy.

Paratypes: 1 ♀, 4 ♂♂, 6921/H6 to 6925/H6, rest of details as in holotype.

Genus *Lobus* Martin

Lobus Martin, 1972, *J. Kansas ent. Soc.* 45 (1): 8.
Type-species, *Leptogaster pallipes* Janssens 1953, by original designation.

Members belonging to *Lobus* Martin are slender, black flies which are readily recognised from the remaining genera of Leptogastrinae by the long, horizontal, pod-like ventral organ of male terminalia called lobos and the almost wholly fused aedeagal sheath with the lobos.

KEY TO THE INDIAN SPECIES OF *Lobus* Martin

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|---|-----|-----|---|
| 1. Anterior legs uniformly yellowish. | ... | ... | 2 |
| Anterior legs pale yellow, apex dark brown. | ... | ... | 3 |

- | | | |
|--|-----|-------------------------------|
| 2. Hind femur with dark spot medially and basally, hind tibia without band; scutellum bears 8 short dark bristles on posterior margin. | ... | <i>keralae</i> Martin |
| Hind femur reddish-brown at tip, hind tibia with a brown band at apex; scutellum bears pale hairs on posterior margin. | ... | <i>himalayae</i> Martin |
| 3. Posterior border of scutellum with 2 or 3 rows of short bristles; proctiger of male terminalia conical. | ... | <i>martini</i> Joseph & Parui |
| Posterior border of scutellum without bristles; proctiger of male terminalia ovoid. | ... | <i>jairami</i> n. sp. |

Lobus jairami n. sp.

(Fig. 4)

A slender black fly with dark brown and yellowish-brown legs, brownish tinged wings and dark brown abdomen. Male: 8 mm, wing 4 mm; female: length 9 mm, wing 7 mm.

Male: *Head* black; gibbosity indistinct, mystax a transverse row of white bristles on mouth border with sparse grey tomentum, occipital hairs short and pale coloured, which become gray on sides. Antenna dark brown, segments 1 and 2 nearly equal, 3 elongate, style about two thirds of 3. Palpi and proboscis dark brown.

Thorax black, sparsely grey tomentose; pronotum devoid of hairs; mesonotum without mediolongitudinal stripe, sides, especially posteriorly, grey tomentose and the rest black, covering hairs dark brown or pale, posterior side bearing somewhat dense, brown hairs; scutellum thickly grey tomentose, covered with hairs but without bristles; pleura to a greater extent covered with gray

tomentum, mesopleuron and sternopleuron anteriorly bearing dense, long, pale hairs. Halteres brownish.

Legs dark brown and yellowish-brown, coxa and trachanter dark brown; forefemur for more than three-fourths yellowish-brown and apically dark brown, midfemur dark brown except at extreme base, hindfemur with the basal half yellowish-brown and distal half dark brown, tibiae basally for more than half yellowish-brown while the rest dark brown, tarsus with the basitarsus yellowish-brown; bristles and clothing hairs predominantly pale with some black ones also.

Wings brownish tinged, basally comparatively darker coloured.

Abdomen dark brown with tergites somewhat lighter on anterior and posterior borders, the lighter colouration gradually decreases in hind tergites. Male terminalia (Fig. 4) with the lobos yellowish-brown and the rest dark brown, hairs pale.

Female : Similar but comparatively darker coloured: in forelegs femur and tibia uniformly yellowish-brown, in mid and hind legs femur and tibia yellowish-brown and

black; abdomen black with grey markings at the anterior and posterior sides of tergites.

Genus *Lobus* Martin is represented by *L. martini* Joseph and Parui, *L. keralae* Martin and *L. himalayae* Martin from India. Of these *L. jairami* n. sp. is somewhat similar to *L. martini* Joseph and Parui, but otherwise quite distinct in structural details of male terminalia and colouration of hind legs. This species is named in honour of Sri Jairam Singh, Insect Setter, who has collected many valuable flies.

Holotype ♂, ZSI Reg. No. 6971/H6, India: Kerala: Kottayam, Edapaliyam 5.i.1971, coll. A. N. T. Joseph.

Paratype ♀, Reg. No. 6972/H6, rest of details as in holotype.

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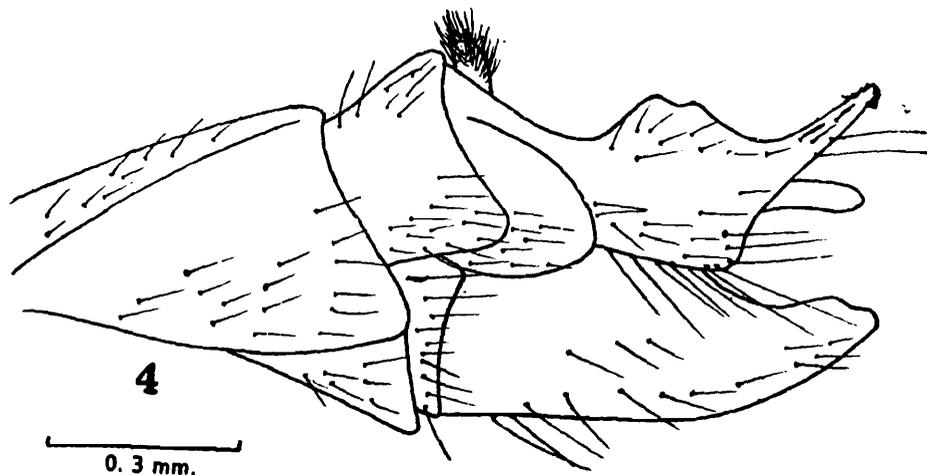


Fig. 4. *Lobus jairami* n. sp., lateral view of male terminalia.

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