

SAROPOGON LOEW (DIPTERA : ASILIDAE) FROM INDIA AND NEPAL

P. PARUI

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

INTRODUCTION

Through the courtesy of Dr. Gary F. Hevel, Collection Manager, Smithsonian Institution, Washington, D.C., I received a few interesting collection of robberflies from India and Nepal, the result of the study is dealt with in this paper which contains two new species- *Saropogon londti* and *S. meghalayensis*. The other two new species *S. tigris* and *S. nepalensis* are from the material present in the Zoological Survey of India, Calcutta.

Genus *Saropogon* Loew

1847 *Saropogon* Loew, *Linn. Ent.*, 2 : 439

In *Dasyopogoninae*, the oriental genera with fore tibial spur at apex are *Saropogon* Loew and *Dasyopogon* Meigen. The former can be distinguished from the latter by the mystax being confined to epistomal region, presence of distinct acrostichal bristles, absence of a row of stout bristles on hind femur and drooping head and abdomen.

The genus *Saropogon* is common in temperate and tropical climate. Bigot (1876) described *S. scalaris* from "Indae Orient" and Joseph and Parui (1981) described *S. hulli* from Karnataka and Kerala. The genus is here recorded for the first time from Meghalaya and Uttar Pradesh.

Of the four new species described here. *S. tigris*, *S. londti*, *S. meghalayensis* and *S. nepalensis*, the genus is recorded here for the first time from Nepal.

Key to the species

- 1 Abdomen reddish, basal tergite with a transverse black band on each segment; mesonotum reddish with a median black spot extending anteriorly as a narrow line.....*scalaris* Bigot
Abdomen not reddish, basal tergite coloured otherwise.....2
2. Disc of scutellum with black hairs and border with 4-bristles; scutum with mediolongitudinal black stripe and two lateral spots.....*hulli* Joseph and Parui

- Disc of scutellum bare, its border with a pair of bristles; scutum otherwise.....3
3. Scutum uniformly black; femora yellow with a dorsal black stripe.....4
- Scutum coloured otherwise; femora without black stripe.....5
4. Mystax comprising of stout yellow bristles covering half of face; male genitalia black with profuse yellow piles.....*tigris* n. sp.
- Mystax comprising a single row of black bristles, male genitalia black with black bristles.....*nepalensis* n. sp.
5. Scutum with a single black patch gradually narrowing posteriorly; antenna uniformly black.....*londti* n. sp.
- Scutum with a black spot lateral to humerus and a pair of curved black stripes in the middle; antennal scape and pedicel yellowish-brown, first flagellomere dark-brown*meghalayensis* n. sp.

1 *Saropogon tigris* n. sp. (Fig.1)

A medium-sized black species with yellow antenna, yellow and black leg, infuscated wing and black abdomen with yellow pattern.

Male Body length 11 mm., wing-length 8 mm.

Male Head Face densely covered with golden yellow tomentum except at base of antenna; mystax consisting of uniformly stout yellow bristles covering half the face, facial tubercle moderately developed; vertex with a row of pale yellow pile; ocellarium pale yellow, pilose; upper occiput with a row of pale yellow bristles, postocular occiput with bristles of similar colour. Antenna yellow with concolourous bristles, proportional length of segments 1 1:2.5. Proboscis and palpi yellow-black with yellow pile.

Thorax Black with humeral callus and posterior margin yellow; pronotum black with a transverse row of yellow bristles and a bunch of long, yellow pile laterally; vestiture of scutum yellow; chaetotaxy: npl 2, spal 2, pa 2; pleura with golden-yellow tomentum; suprspiracular convexity with long, yellow pile; scutellar disc bare, border with a pair of yellow bristles.

Legs All yellow and black; femora yellow with a dorsal black stripe, stripe extending more extensive in posterior two pairs, fore and mid femora with ventral long yellow pile,

absent in hind pair, fore and hind tibiae with a black stripe, absent in mid tibia, tarsi yellow.

Wings Lightly infuscated, but infuscation deeper along veins, all cells open including anal cell.

Abdomen First segment wholly black, segments 2-4 with almost a rectangular yellow spot laterally, remaining segments with a yellow transverse stripe on posterior margin. Male genitalia (Fig. 1) black with profuse yellow bristly pile.

Material Holotype (M), ZSI, Reg. No. 9901/H₂, India Uttar Pradesh Kumaun; Bhim Tal, 1500 m., 2-10.v.1911 Coll. S. Kemp. MS name 'tigris' attached to the specimen by Enrico Brunetti is used here in describing the species present in the National Zoological Collection housed in the Zoological Survey of India, Calcutta.

The species is close to *Saropogon nepalensis* n. sp., but differs from the latter in the colouration of mystax, humeral callus, the posterior margin of thorax and detailed structure of male genitalia.

2. *Saropogon nepalensis* n. sp. (Fig. 2)

A medium-sized black species with yellow and black leg and pale yellow wing. Male Body-length 10 mm, wing-length 7 mm.

Male Head in dorsal view broader than thorax; face densely covered with shiny white tomentum except base of antenna; frons golden-yellow tomentose with rows of black bristles; mystax consisting of a single row of black bristles above epistome; ocellarium with a few black bristles; upper occiput with black and yellow bristles, postocular occiput yellow pilose with a row of black bristles dorsally. Antenna lost. Proboscis and palpi with black pile, the former black with yellow apex.

Thorax : Black; pronotum with a transverse row of pale yellow bristles and lateral pile; mesonotum with yellowish-brown humeral callus; chaetotaxy: npl 2 exceptionally long and stout, spal 4, pal 2; pleura with a yellowish white tomentose stripe from the base of mid-leg to wing base.

Legs Femora brownish-yellow with a black stripe dorsally up to subapical region, tibiae yellow, posterior pair yellowish-brown, fore pair with black stripe anteriorly; tarsi dark brown.

Wings Pale yellow, all cells open, including anal cell.

Abdomen Uniformly black, clothing pile pale yellow. Male genitalia (Fig. 2) black with black bristles.

Material Holotype (M) (lacking antennae), ZSI Reg. No. 9900/H₂, Nepal Tarai : Kumdhik, 22.iii.1908, Coll. Mus. Coll. The species was named by E. Brunetti and kept in the ZSI type collection without describing it. I take the opportunity to describe it in the same name. Deposited in the ZSI collection.

The species resembles *Saropogon tigris* n. sp. but can be separated on characters as mentioned above.

3. *Saropogon londti* n. sp.

A medium-sized yellowish-brown and black species with distinct black colour pattern on scutum, yellow legs and wings. Male Body-length 9-10 mm, wing length 7-8 mm. Female Body-length 9-10 mm., wing 7-8 mm.

Male: Head as broad as thorax in dorsal view, black, yellowish-white tomentum covering a little away from the base of antenna to epistome; mystax pale yellow; frons from base of antenna to eye margin with sparse black pile; upper occiput with a pair of stout bristles on each side; postocular occiput bearing a row of weak, curved black bristles. Antenna black with black pile and bristles, proportional length of segments 1:0.4:2.6.

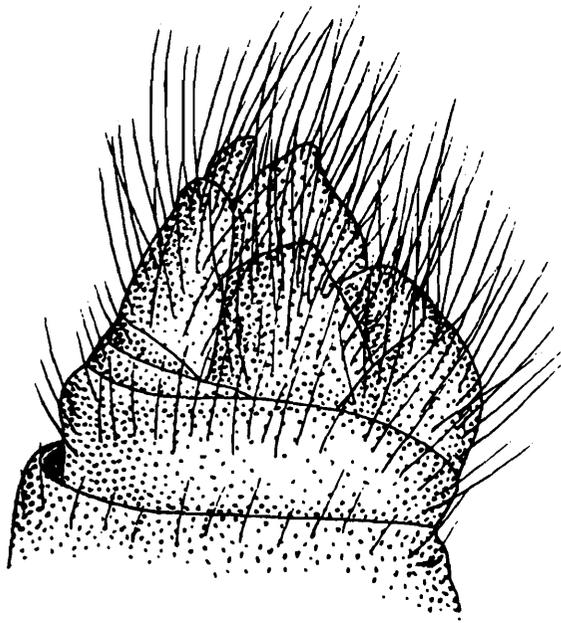
Thorax Yellowish-brown; pronotum with black pile and bristles; scutum with a black patch, gradually broadening to wing level followed by gradual narrowing, vestigule pale yellow; scutellum yellowish-brown with pale yellow pile laterally, border with a pair of black bristles and pale yellow pile; pleura bare.

Legs Yellow with dark brown tarsal segments; femora free from bristles, sparsely pilose; fore tibiae with a row of dorsal and a row of ventral bristles; mid tibia with a row of anterodorsal and a row of ventral bristles; hind tibiae with a row of dorsal, a row of anteroventral and a row of posteroventral bristles; basitarsi paler than remaining segments.

Wing greyish, distal half with full of microtrichia.

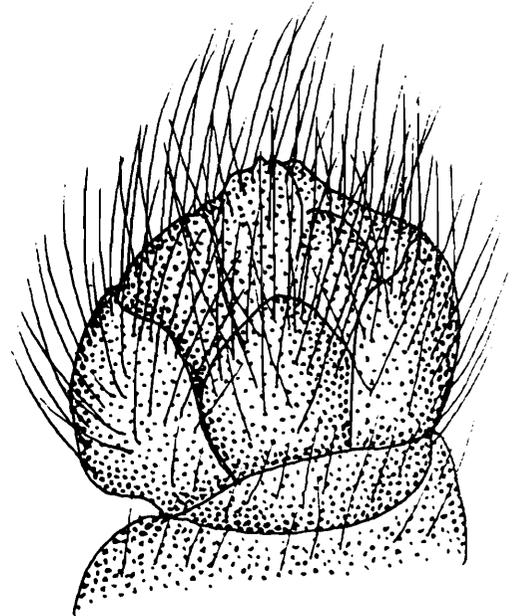
Abdomen Black and yellowish-brown, tergites 1-6 black, remaining tergites pale yellow. Male genitalia (Fig 3) yellowish-brown with profuse yellow pile.

Material Holotype (M), India: Kerala Nilgiri Hills Naduvatum, v. 1958, Coll. P.S. Nathan. Paratypes (M), Kerala Nilgiri Hills: Cherangode, 1665 m., v. 1950, Coll. P.S. Nathan; 15 (M), 6(F), details as in holotype. Holotype and 17 paratypes deposited in Smithsonian Institution, Washington, 4 paratypes in ZSI collection and 1 in Natal Museum.



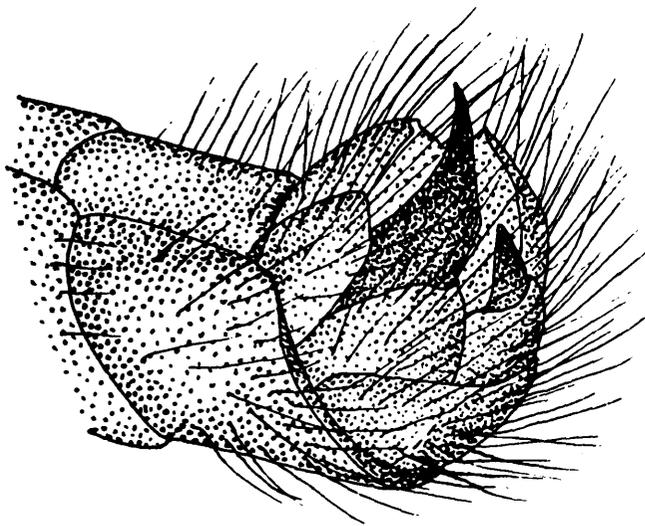
1mm

Fig 1



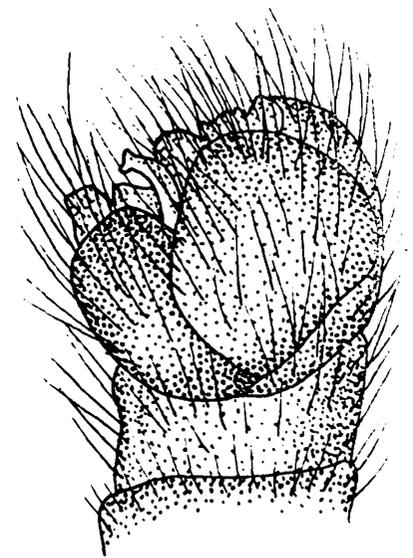
1mm

Fig 2



1mm

Fig, 3



1mm

Fig 4

The species differs from all other known Indian species i.e. *S. hulli* Joseph and Parui (1981), *S. tigris* n. sp. and *S. meghalayensis* n. sp. in the black colour markings of thorax and detailed structures of male genitala. The shape of the antennal microsegment of this species differs from that in any other Indian species except *meghalayensis* n. sp. and the Nepalese species too. The species together with *meghalayensis* however, placed in this genus on the basis of other relevant characteristics.

4. *Saropogon meghalayensis* n. sp.

A medium-sized yellow and black species with distinct black scutal markings, yellow leg and lightly infuscated wing. Male Body-length 9 mm, wing-length 8 mm.

Male Head shiny black except for yellow from below antenna to epistome, yellow tomentum also covering back of head except postvertical region; mystax pale yellow; ocellarium free from bristles; upper occiput with a single bristle and a few pale yellow pile on each side; postocular occiput with a row of pale yellow pile. Antennal scape and pedicel yellowish-brown, first flagellomere dark brown, proportional length of segments 1:0.6:3.4.

Thorax Yellow with black markings; pronotum with a dorsal rectangular black spot and bristles and pile; scutum with an elliptical black spot lateral to humeral callus and a pair of slightly curved stripes in the middle almost reaching the base of scutellum; chaetotaxy: npl 2, dc 2, spal 4, pal 1., scutellum yellow with a pair of marginal bristles. Pleura yellow with brown infuscation on sternopleuron; suprspiracular convexity with a row of long, pale yellow bristles.

Legs Yellow; hind tibiae a little darker, bristles and pile concolourous with legs.

Wings Greyish, basal cells and the discal cell almost bare of microtrichia.

Abdomen Brownish-yellow with black markings on each segment, tergites 1-4 with rectangular black marks, remaining tergites black. Male genitalia (Fig. 4) with yellow pile.

Material: Holotype (M), India Meghalaya Nongpoh forest 25-28 iv. 1980. Coll. Amnon Friedberg. Deposited in the Smithsonian Institution, Washington.

The species resembles *Saropogon hulli* Joseph and Parui but differs in the colour pattern of thorax and with detailed structures of male genitalia.

ACKNOWLEDGEMENTS

I am indebted to Dr. A. K. Ghosh, Former Director, Zoological Survey of India, Calcutta, for permission accorded to study the material and for his keen interest in this study and to Dr. M. Datta, Scientist-SE of this department for his constant encouragement and various helps.

REFERENCES

Bigot, J.M.F. 1878. Dipteres nouveaux ou peu connus. Thibu des Asilidi. *Ann. Soc. Ent. France*, (5) **8** 401 - 446.

Joseph, A.N.T. and Parui, P. 1981 *Astochia* Becker, *Promachus* Loew and *Saropogon* Loew (Diptera : Asilidae) from India. *Orient. Insects* **15** (1) 17-29.