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A new species of genus *Strongyloneura* BIGOT from India (Insecta, Diptera, Calyptrata: Calliphoridae)

With 3 Figures

RAJESH K. G H E Z T A & DALIP K U M A R
Chandigarh

Abstract. A new species, *Strongyloneura nudus* sp. n., has been described, its differences have been given with the closely allied species *S. malayensis* by three figures.

Introduction

The family Calliphoridae is another family in the order Diptera which is composed of a great number of species throughout the world. The flies of the Calliphoridae have a peculiar type of body colouration and such are commonly known as bright-blue bottle or green bottle flies. Due to their habit of producing buzzing sound during flight, they have been called blow flies as well (DUDDLEY et al., 1829). According to their frequent presence on meat and excreta, these flies are also called as meat or excreta flies. Several species of these flies are of great medical and veterinary importance. Some species breed in decaying animal matter but some breed in human and animal excrement, including faeces and dung, and may thus, by subsequently settling on foodstuff, transmit pathogenic organisms. The many species belonging to this group of flies cause myiasis in man and animals.

Extensive studies on the Calyptrate Muscoid flies have not been conducted yet in India. Therefore, fly surveys were carried out by the authors in Chandigarh and its adjoining areas during September, 1986 to October, 1988.

Strongyloneura nudus sp. n. (Figs. 1, 2, 3)

Description of male

Head Eyes bare, sub-holoptic, separated at closest approximation of eyes by double the width of third antennal segment, inner eyes facets slightly enlarged; frons black, narrow posteriorly and broad anteriorly; parafrontalia silvery-white, narrow posteriorly and broad at lunula, with a row of 8–9 inclinate strong parafrontals and short black setulae outside the parafrontals; ocellar triangle broad, grey, ocelli yellow, ocellars strongly developed; vertex silvery-grey, inner verticals absent, outer verticals strongly developed, postverticals well developed; face yellowish; facialia yellowish-grey, broad; parafacialia silvery-white, covered with small black hairs, parallel-sided to frontal suture; vibrissaria light brown with strongly developed vibrissae; epistome light-yellow, slightly projected below vibrissae; medianae brownish, covered with black hairs; genae and post-buccae (genae) yellowish-white, with pale golden hairs intermixed with black hairs; 2nd antennal segment shining yellow, 3rd antennal segment yellowish-brown, antennae separated by distinct carina, not reaching the level of insertion of vibrissae; arista dark-brown, plumose on both sides up to tip; palpi yellow, with setulae.

Thorax Shining green with purple reflections without well defined black stripes; scutellum concolorous with thoracic dorsum; dorsal mesonotal pilosity relatively long; propleuron bare, other pleura covered with silvery-white long hairs; supra-spiracular convexity bare; supra-squamal ridge bare; para-squamal and tympanic tuft of hairs absent;

post-alar declivity bare; prothoracic spiracle light-brown, metathoracic spiracle dark-brown; chaetotaxy $ac\ 2+2$; $dc\ 2+4$; $ia\ 1+3$; $h\ 3$; $ph\ 3$; $pa\ 2$; $h\ 2$; $sc\ 3+1$; $st\ 1+1$; propleural and prostigmatal bristles well developed.

Wings Hyaline, slightly with yellowish tinge; epaulet black; basicosta brown; subcostal sclerite bare; stem vein (vein-1) with upper and lower basal black hairs; 3rd longitudinal vein yellowish, setulose at node on both the upper and lower surfaces; 4th longitudinal vein with right angle bend; $m-m$ vein strongly sigmoid; squamae white, lower lobe whitish opaque, bare; halteres yellowish.

Legs Black; femora metallic-green; tibiae and tarsi brownish; fore tibia with one p seta; mid tibiae with one ad and one py seta; hind tibiae with two ad setae.

Abdomen Shining-green with cupreous reflections; tergite $1+2$ with anterior half black; tergites $1+2$, 3rd and 4th with strong marginal bristles laterally; tergite 5th besets with strong discal and marginal bristles; venter covered with long bushy hairs.

Body length 7.5–8.7 mm, wing length 7.1–7.8 mm.

Male terminalia

(i) Outer and inner forceps: Outer forceps broad basally, tapering to a fine needle-like apically, covered with bristles, articulated basally with outer surface of epandrium and outer surface of inner forceps; inner forceps narrow and fused up to whole length, with long bristles basally, lie posterior to outer surface of epandrium and inner surface of outer forceps.

(ii) Phallosome: Phallobase well developed; paraphallus developed in continuation with phallobase, composed of two thick, flat, curved ventral stunts; latter narrow basally and broaden apically; hypophallus arises as antero-dorsal out-growth of paraphallus, heavily sclerotized, with a straight ventral cornus running parallel to ventral stunts of paraphallus; praeputium reduced; fused dorso-laterally with two projections of hypophallus; the epiphallus short, blunt apically; anterior parameres broad rectangular, with few bristles on ventral margin; posterior parameres hook-like with a strong bristle antero-ventrally; aedeagal apodeme narrow basally and broad apically, as long as phallosome.

Description of female

Resembles male except in the following: Eyes dichoptic, separated at vertex by more than $\frac{1}{3}$ width of head, facets uniform; frons dark-brown, more than the width of one parafrontalia; parafrontalia with 2 proclinate orbito-frontals and one reclinate frontal bristle; inner verticals present.

Body length 8.8 mm, wing length 7.5 mm.

Holotype Male; India: Chandigarh; 18. IV 1986; Botanical garden (P.U.); ex cactus; R. K. Ghezta. **Paratypes** 1 Male, 1 Female; same data as for holotype, material in Zoology Department, Panjab University, Chandigarh.

Remarks

Strongyloneura nuda sp. n. clearly reflects the diagnostic characters of the genus *Strongyloneura*, so it is placed under it. It does not resemble with any of the known species of the genus *Strongyloneura*, but it resembles with *Strongyloneura malayensis* in the following few characters: (1) vein I with upper and lower basal hairs black, (2) hind tibiae with two antero-dorsal setae. However, it differs significantly from *S. malayensis* in the following characters:

S. malayensis

1. Female frons at vertex $\frac{1}{4}$, head width
2. Thorax with well-defined black vittae on thoracic dorsum post-suturally
3. Propleuron bare centrally
4. Foretibia with an antero-dorsal seta.

S. nuda sp. n.

- Female frons at vertex $\frac{1}{3}$, head width
- Thorax without well-defined black stripes or vittae
- Propleuron completely bare
- Foretibia without ad seta

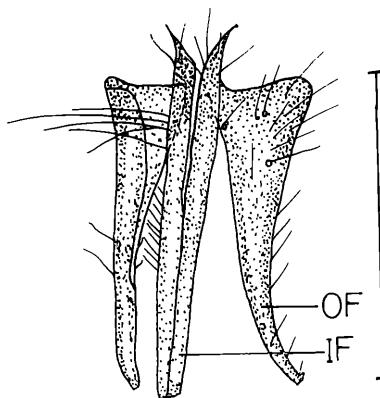


FIG.1

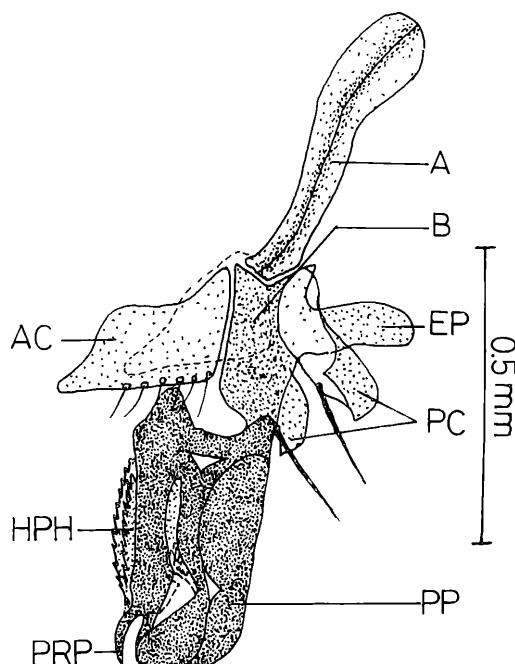
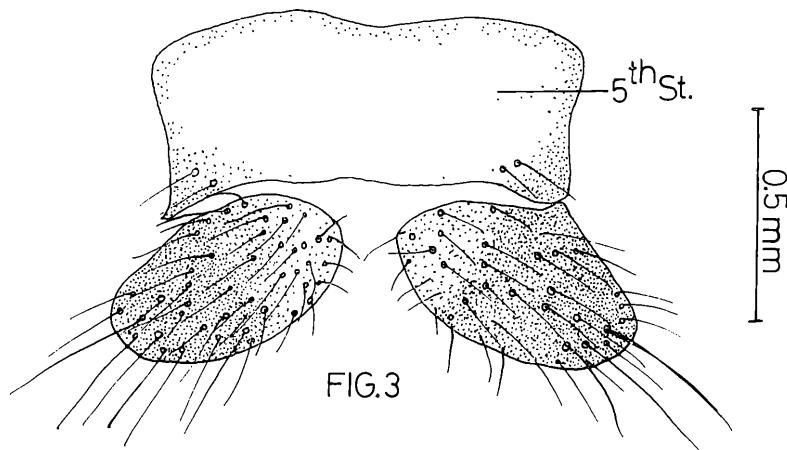


FIG.2



Figs. 1-3: *Strongyloneura nuda* sp. n. 1 Outer and inner forceps (caudal view) – 2: Phallo-base (lateral view) – 3: 5th sternite (ventral view).

As such it becomes obvious from above that it does not resemble with any of the known species of the genus *Strongyloneura*, so it is a new species. On account of its possessing completely bare propleuron, it has been named as *Strongyloneura nuda* sp. n.

Abbreviations

A: aedeagal apodeme; AC: anterior parameres; B: phallobase; EP: epiphallus; HPH: hypophallus; IF: inner forceps; OF: outer forceps; PC: posterior parameres; PP: paraphallus; PRP: praeputium; 5th St.: fifth sternite.

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Address of the authors:

Department of Zoology, Panjab University, Chandigarh - 160 014 (India)

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Autor(en)/Author(s): Ghezta Rajesh K., Kumar Dalip

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