

**PARASARCOPHAGA (LIOSARCOPHAGA) CHOUDHURYI SP. NOV.
(DIPTERA : SARCOPHAGIDAE) FROM SAGAR ISLAND,
SUNDARBANS BIOSPHERE RESERVE, INDIA**

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INTRODUCTION

Very little is known about the sarcophagid flies from Sagar Island. Nandi (2001) reported only 8 species from this Island. The authors made several trips for collection of this flies from different parts of the Island and found an interesting species described now as new to the Indian sarcophagid fauna.

Types will be deposited in National Collection of Zoological Survey of India, Kolkata in due course.

ABBREVIATIONS USED IN THE TEXT

ac–acrostichal bristles, *dc*–dorsocentral bristles, *h*–humeral bristles, *hpl*–hypopleural bristles, *ia*–intraalar bristles, *mpl*–mesopleural bristles, *np*–notopleural bristles, *pa*–postalar bristles, *ph*–posthumeral bristles, *ps*–presutural bristles, *sa*–supraalar bristles, *st*–sternopleural bristles.

ABBREVIATIONS USED IN THE FIGURES

AP–apical plate of paraphallus, *LP*–lateral plate of paraphallus, *P*–paraphallus, *S*–styli of glans, *T*–theca of penis, *V*–ventralia of penis, *PA*–process of apical plate of paraphallus, *K*–seventh tergite, *F*–sixth sternite, *G*–seventh sternite, *H*–eighth sternite, *AS*–anal sternite.

***Parasarcophaga (Liosarcophaga) choudhuryi* sp. nov.**

(Text figures 1–6)

Male : Body length 8–9 mm.

Head : Width of frons about two-thirds that of one eye; frontal vitta blackish, its width at narrowest point of frons about twice that of each parafrontal; parafrontal and parafacial black with golden pollen, the former with short scattered hairs, the latter with a row of short black hairs near

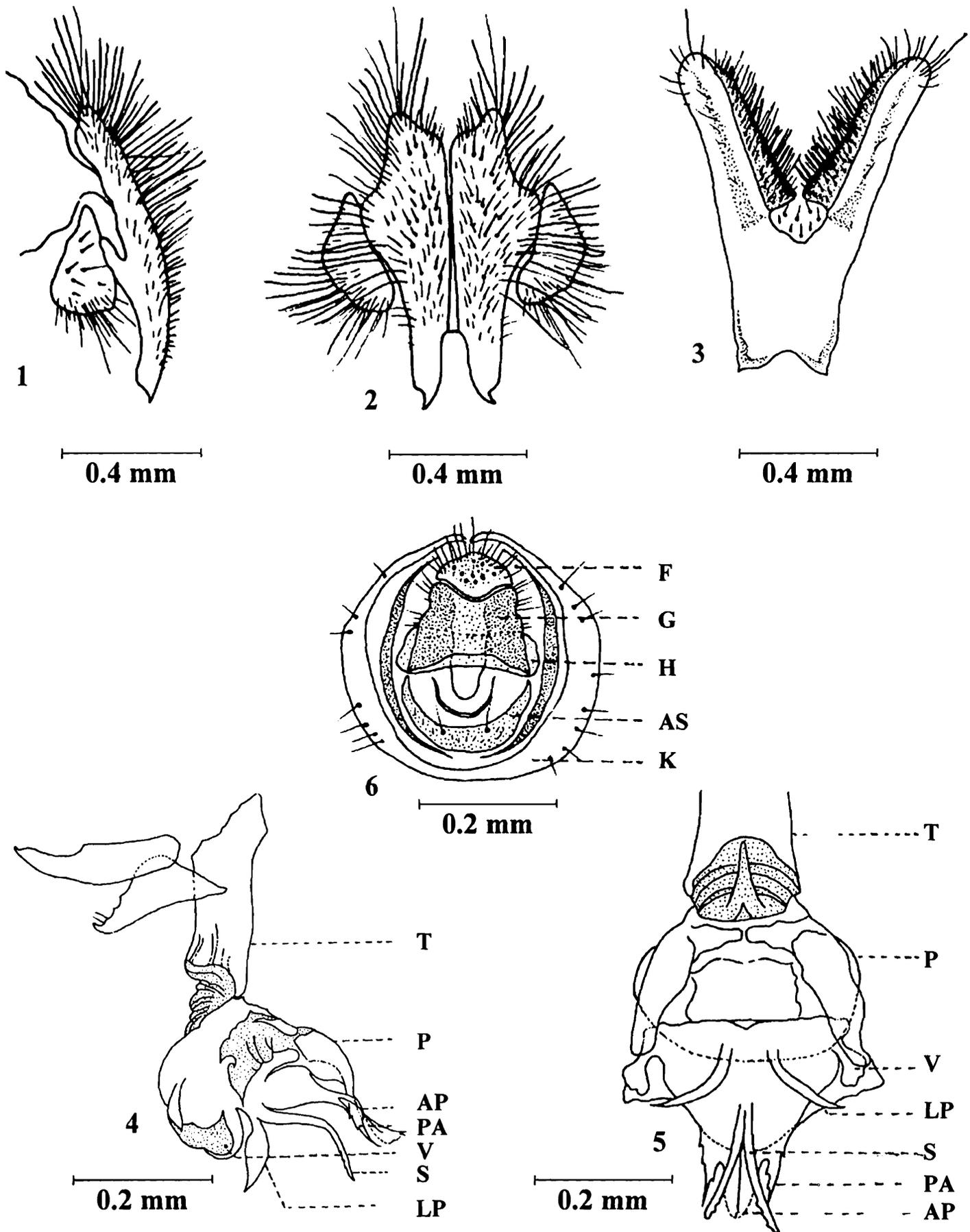
the eye margin of which lower 3 stouter; antennae brownish with silvery pollen, reaching up to about 0.8 distance to vibrissae, first and second segments blackish, third segment brownish with silvery pollen and its length about more than twice that of the second; arista long, plumose along basal half; facial ridge brown with silvery pollen; vibrissae long, distance between vibrissae about three times that of parafacial width; frontal bristles 9, arranged in a row on parafrontal and reaching half of second antennal segment, upper 2 reclinate, lower 3 below base of antennae; gena black with greyish hairs; postgena black with silvery hairs; outer vertical bristle short, inner vertical well developed and about three times that of the outer vertical, post vertical moderately developed; ocellar and postocellar bristles short; a row of regular postocular setae besides postocular cilia, rest of the area with short hairs; palpi black; proboscis blackish-brown.

Thorax : Grey with three black longitudinal stripes; *ac* 0+1; *dc* 4+5 (posterior 2 *dc* stout); *ia* 1+2; *ps* 1; *h* 2; *ph* 2; *np* 2; *pa* 2; *sa* 4; *st* 1+1+1; *mpl* 7-8; *hpl* 6-7; upper part of propleura bare with silvery pollen; prostigmatic and propleural bristles well developed and accompanied with short hairs; pro- and mesothoracic spiracles brown; apicoscutellar and discoscutellar bristles 1 pair each; lateroscutellar bristles 2 pairs.

Wings : Hyaline with brown veins; R_1 bare; R_{4+5} with a row of short setae located dorsally, extending half from the basal node to r-m and several short setae along ventral surface of basal node of R_{4+5} ; fifth costal segment slightly greater than the third, the former with short spines along basal half of its anterior margin; costal spines stout; epaulet brown with short spines; basicostal scale yellowish; squama whitish; halter brown.

Legs : Black; fore femur with a pair of rows of bristles along posterodorsal surface and a row of bristles along posterior margin of ventral surface; fore tibia with a row of 3 bristles along basal one-third of anterodorsal surface and 1 bristle on posterodorsal surface at about one-third the distance from the distal end; mid femur with a row of bristles along middle portion of anterodorsal surface, a row of short setae each along distal half of anteroventral and posteroventral surfaces, a row of short bristles along basal half of anteroventral surface, 2 bristles on posterolateral surface distally and numerous long hairs along basal one-third of posteroventral surface; mid tibia with a row of bristles along posterodorsal surface, 2-3 bristles along anterodorsal surface on distal half and 1 bristle each on distal one-third of anteroventral and posteroventral surfaces; hind femur with a pair of rows of bristles along anterodorsal surface, a row of bristles along anteroventral surface and 2 bristles on distal part of posteroventral surface; hind tibia with 2 bristles apart medially on anterodorsal surface, 1 bristle each on posterodorsal surface at about one-third and two-thirds the distances from the basal end.

Abdomen : Greyish with golden checkered pattern; median marginal bristles on second and third abdominal tergites absent but both with a pair of lateral marginal bristles, fourth with a pair of median and three lateral marginal bristles, fifth with a row of about 14-16 marginal bristles; sternites first to fourth with short hairs; fifth sternite Y-shaped with stout spines on inner sides and



Figs. 1-6. Genitalia σ^7 ; 1. inner and outer forceps, lateral view; 2. same, posterior view; 3. fifth sternite; 4. penis, lateral view; 5. same, ventral view; 6. genitalia q , ventral view.

long hairs terminally on arms; first and second genital segments without marginal bristles; inner forceps slightly curved with grooved at the apex; outer forceps almost oval with few hairs terminally; anterior paramere elongated and wide; posterior paramere gradually pointed apically with 2 short hairs anteriorly; theca shorter than paraphallus, both are sclerotised; apical plate of paraphallus slightly curved backwards with anterior membranous region and elongated apical processes; lateral plate of paraphallus elongated, wide at middle and pointed apically; styli of glans slightly longer than apical plate of paraphallus and with serrations at tip; ventralia almost oval with wide trilobed, posterior lobe with curved chitinous area and the others almost membranous.

Female : Almost similar to male excepting for the following differences :

Body length : 6 mm.

Head : Width of frons more wider than male and about twice that of male; frontal bristles 7; 2 proclinate fronto-orbital bristles; frons showing two black stripes; palpi orange with brown hairs.

Thorax : *ac* non visible; *dc* 1+3.

Wings : Fifth costal segment about twice that of the third; M_{1+2} not bent forward to R_{4+5} .

Legs : Fore tibia with 4 bristles along middle portion of posteroventral surface; mid femur with a row of short bristles along ventral surface; hind tibia with 2 bristles on mid dorsally and 1 bristle on ventral surface.

Abdomen : Second to fourth sternites each with 4 bristles, fifth with 6 bristles, sixth wider than the others and with numerous short hairs, peripheral parts of seventh sternite deeply pigmented, concave anteriorly and overlapped to the eighth sternite and its median portion transparent, eighth membranous, less wide and without hairs; anal sternite well developed, cup-like and with 2 long and few short hairs; seventh tergite entire with short bristles and hairs.

Female described here was collected in couple.

Holotype : 1♂, Sagar Island; Bani Jungle, 24.xi.2000, B. C. Nandi and Shuvra Kanti Sinha; 2♂♂, *Paratypes*, same data as *Holotype*; *Allotype* 1♀, Bani Jungle, 24.xi.2000, B. C. Nandi and Shuvra Kanti Sinha; 1♂, Fraserganj, 26.xi.2000, B. C. Nandi and Shuvra Kanti Sinha.

Distribution : India : Sundarbans Biosphere Reserve; Bani Jungle and Fraserganj.

Discussion : Provisionally, we are placing this species under the genus *Parasarcophaga* Johnston and Tiegs, 1921 on account of long third antennal segment, serrated styli of glans and well developed and complex apical plate of paraphallus. The structure of ventralia is more massive here than in any other species of the genus. This species is almost similar to *Parasarcophaga (Liosarcophaga) angarosinica* Rohdendorf, 1937, but differs from it by the structures of ventralia and lateral plate of paraphallus. Moreover, the styli of glans are more elongated here.

This species is named in honour of Prof. Amalesh Choudhury, renowned scientist and mangrove specialist and former Prof. and Head of the Department of Marine Science, Calcutta University, Kolkata.

Bionomics : This species was collected from bushes near dead mollusca.

SUMMARY

A new species of *Parasarcophaga (Liosarcophaga) choudhuryi* is described from Sagar Island and male and female genitalia are figured.

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