

## ON THE MONOTYPIC GENUS *CHRYSOSARCOPHAGA* (DIPTERA: SARCOPHAGIDAE)<sup>1</sup>

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*Abstract:* The genus *Chrysosarcophaga* Townsend, 1932 is redefined and the female of *C. superba* Townsend is redescribed. The male and 1st-instar larva are reported and described for the first time. Figures of female, male, and cephalopharyngeal sclerite of 1st-instar larva are also presented.

Townsend (1932) proposed the genus *Chrysosarcophaga* based on a female and included a single species, *C. superba*, from Bougainville, Solomon Islands. We have recently examined further material from Bougainville and Malaita, including males from Guadalcanal, Solomon Islands. We have also examined a 1st-instar larva which was found in a female from Bougainville. In order to incorporate this new material, we are hereby redefining the genus *Chrysosarcophaga* Townsend to include the characters of the male.

### GENUS *Chrysosarcophaga* Townsend

*Chrysosarcophaga* Townsend, 1932, J. N. Y. Ent. Soc. **40**: 441, type-species: *C. superba* Townsend, 1932 (by original designation); 1938, Man. Myiol. **6**: 19-20.

Large species (13 to 18 mm), with only 2 thoracic longitudinal vitæ, the middle one absent or very faint. Ocellar bristles of medium size; frontal bristles reaching well below base of antennæ, somewhat divergent anteriorly; parafacial bristles absent. Propleura bare; 4 postsutural dorsocentral bristles, posterior 2 long, others well developed; presutural dorsocentrals same size as anterior postsuturals; 1st male genital segment without bristles; paraphallus with lateral membranous region, apical plate very large and spinous, lateral plates absent; ventralia large, well sclerotized.

***Chrysosarcophaga superba* Townsend, 1932**

FIG. 1-11

*Chrysosarcophaga superba* Townsend, 1932, J. N. Y. Ent. Soc. **40**: 441 (Bougainville, ♀).—Curran, 1936, Proc. Calif. Acad. Sci. Ser. 4, **22**(1): 62 (Guadalcanal, ♀) nec *Chrysosarcophaga superba* Baranov, 1934=*Sarcorhodendorfia magnifica* (Baranov, 1938).

♂. Body length 17 to 18 mm. *Head*, including occiput, intense golden. Front about 0.19 of head width, frontal vitta velvety black; ocellar bristles long, about length of superior frontal bristles but more slender; 3 frontal bristles placed below base of antenna, all bristles directed inwards; reclinate frontorbital bristle longer than ocellar bristle. Antenna gray, reaching about 0.8 of the distance to vibrissæ, 2nd segment black, about 0.32 of 3rd; arista sparsely long plumose on basal 1/2. Facialia blackish, with sparse and somewhat erect hairs on inferior 2/3; parafacialia about 0.46 of distance between vibrissæ, with a series of minute hairs near eye and 1 or 2 developed hairs below;

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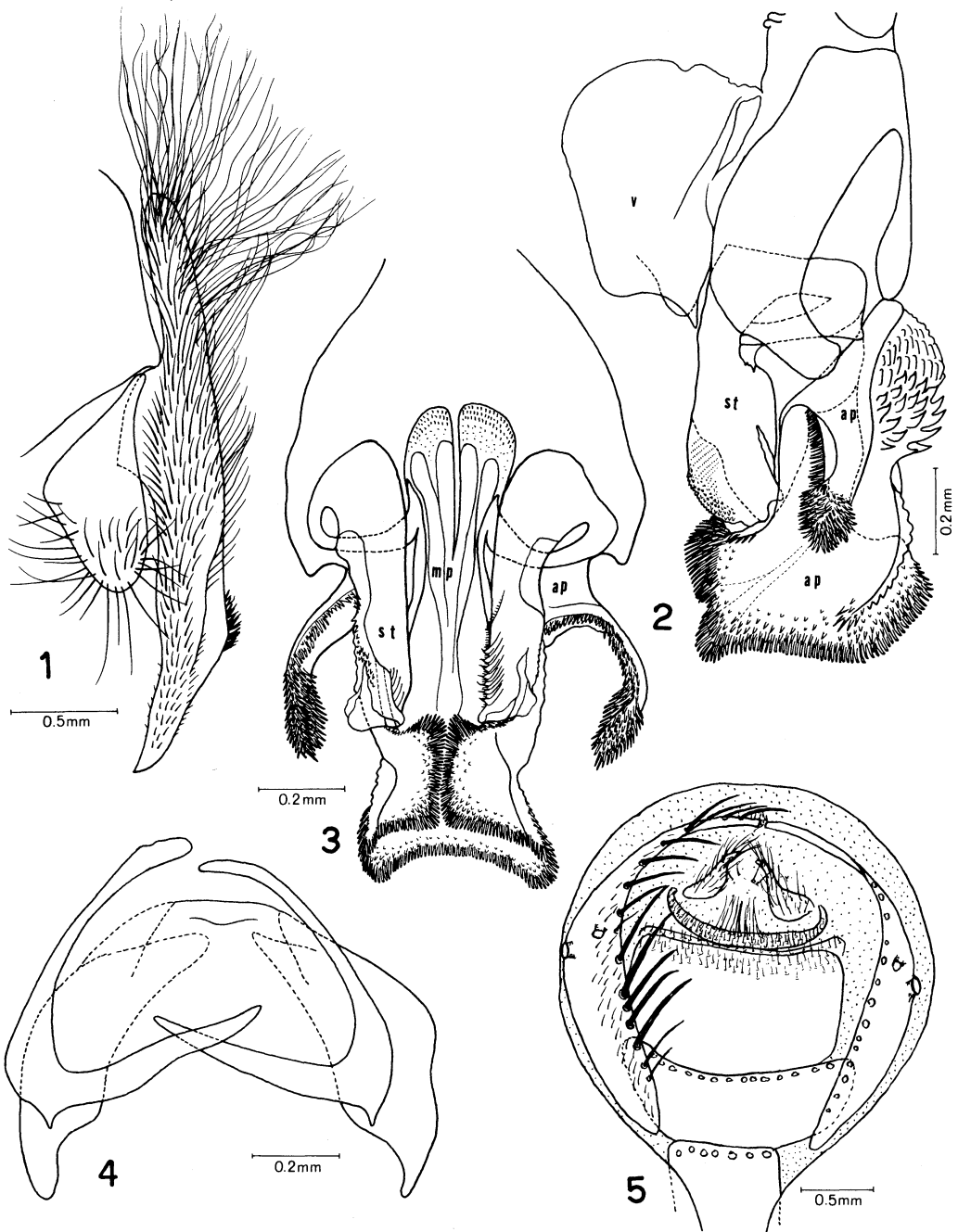


FIG. 1-5. *Chrysosarcophaga superba* Townsend: 1, cercus; 2, penis, lateral view; 3, penis, ventral view, without ventralia; 4, ventralia, ventral view; 5, ♀ abdomen, ventral view. ap=apical plate; mp=median process; st=stylus; v=ventralia.

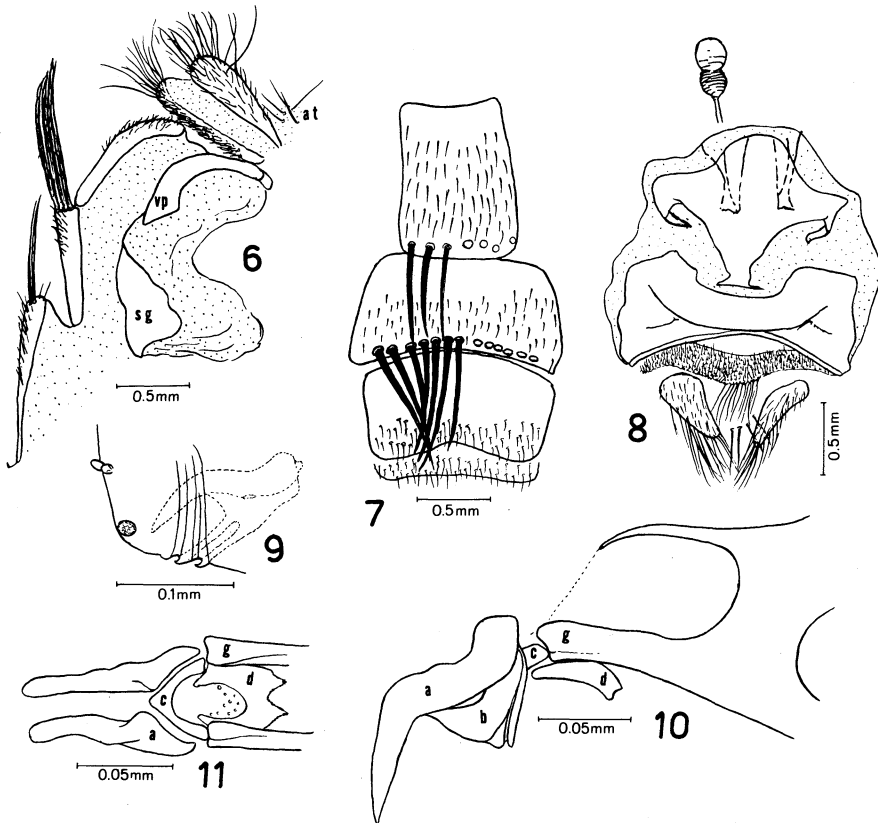


FIG. 6-11. *Chrysosarcophaga superba* Townsend: 6, ♀ sternites, lateral view; 7, genital sternites, ventral view; 8, vaginal plate, signum and anal segment; 9, larva I, anterior end, lateral view; 10, larva I, cephalopharyngeal sclerite; 11, cephalopharyngeal sclerite, dorsal view; a=maxilla; b=dentate sclerite; c=mandible; d=hypopharyngeal sclerite; g=paraclypeal phragma. at=anal tergite; sg=signum; vp=vaginal plate.

back of head and gena with golden hairs and a few black hairs on the superior part of gena; bristles of peristomalium all black. *Mesonotum* intensely golden, with 2 black vittae from level of presutural intraalar bristle to hindmost postsutural dorsocentral; median vitta somewhat dark but no black pigment visible; a lateral black vitta is present from humerus to base of wing; propleura, mesopleura, pteropleura and superior part of sternopleura also golden, rest of pleurae black. Predorsocentral bristles 4 to 5 well developed; 4 postdorsocentrals long, posterior 2 very long; 5 to 6 preacrostichals small, anterior one well developed just before suture; prescutellars present; 2 lateral scutellars, apical pair crossed, preapical present or absent. Legs black, tibiae without ventral bristles, moderate long pilosity, more dense on hind tibia than on middle. Wings infusate, veins reddish brown,  $r_{4+5}$  hairy on basal 4/5 of distance to cross vein. *Abdomen* covered with golden pollinosity and reddish black on ventral sides of tergites and sternites which are covered by long dense hairs; black longitudinal vitta along middle of 3rd and 4th tergites broadening to hind margin of 3rd and extending along hind margin of tergite; faint black median longitudinal vitta on 5th tergite, absent in 1 specimen; median marginal pair of strong bristles on 3rd and 4th tergites; genital segments reddish black, golden pollinosity limited to dorsum of apical 3rd of 1st segment and to intersegmental membrane; both segments covered by black dense hairs but without bristles. Cerci curved forward, with a patch of

spines (FIG. 1); penis with well sclerotized paraphallus but with lateral membranous region; apical plate very large, complex, spinous, with a pair of basal elongate apophyses but not covering the conspicuous styli (FIG. 2, 3); ventralia well sclerotized (FIG. 4), styli very large, spinous on apices, with large bases.

♀. Body length 13 to 15 mm. Front about 0.4 of head width; 9 frontal bristles, superior 2 or 3 small; anterior proclinate frontal bristle about length of outer vertical bristle which measures about 2/3 of inner; posterior proclinate frontorbital bristle a little longer than reclinate; antenna reaching about 0.93 of the distance to vibrissae, 2nd segment about 0.38 of 3rd; small additional bristle near posterior marginal scutellar, apical scutellar absent, prescutellar strong. Legs without villosity, middle tibia with strong ventral bristle, hind tibia with small ventral displaced to anterior side. Sixth and 7th tergites consist of 2 plates united dorsally by narrow membrane; 6th and 7th sternites broad, with marginal series of strong bristles, 8th sternite without marginal bristles, 9th sternite poorly sclerotized, small (FIG. 7, 8), vaginal plate and signum strongly sclerotized, anal tergite with number of bristles (FIG. 8).

Specimens from Malaita and Bougainville differ from the above as follows: signum more sclerotized, bearing an almost complete proximal ring; 6th and 7th tergites less membranous dorsally and with more numerous bristles on anal tergite.

First-stage larva (found in the ♀ from Bougainville): 2 to 2.4 mm in length. Pseudocephalon with 2 conspicuous furrows; maxillae moderately curved, dentate sclerite well separated from base of maxillae; mandible well developed and easily observed from dorsal view (FIG. 9, 11).

**SPECIMENS EXAMINED. SOLOMON IS:** Guadalcanal: ♂, Tambalia, 30 km W of Honiara, 23.V.1964, R. Straatman; ♂, Suta, 500-1200 m, 27.VI.1956, J. L. Gressitt; Malaita: ♀, Auki, 2-20 m, 2.X.1957, Gressitt; PNG (SOLOMON IS): Bougainville: ♀, Kokure, 690 m, 8.VI.1956, E. J. Ford, Jr. Specimens are deposited in Bishop Museum, Honolulu and in Museu Nacional, Rio de Janeiro.

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