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Taxonomical Studies on Muscoid Flies in Japan, VIII*

Description of two new species of genus *Sarcophaga* (Dipt., Sarcophagidae) and *Strongylooneura prasina* BIGOT (Dipt., Calliphoridae) from Japan**

BY

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(With 4 Text-figures)

Sarcophaga hokurikuensis sp. nov.

♂—*Head* : frons about equal to half an eye-width. Lateral verticals weak. Frontals 10-11, diverging below. Frontal stripe black, of uniform breadth and somewhat ill-defined toward vertex. Parafrontalia about two-thirds of frontal stripe. Parafrontalia and parafacialia yellowish-silver. Parafacial hairs weak. Cheek yellowish-silver, with black hairs. Antennae black, third segment about three times the second. Back of head usually with two irregular rows of bristles, yellow soft hairs restricted to the center and below. Palpi black.

Thorax : very slight yellowish-grey, with the three black stripes. Propleura bare. Acrostichals 0+1, dorso-centrals 4~5+4. Scutellum with usual bristles. Sternopleurals 1:1:1.

Abdomen : ground-color as in thorax, with the usual tessellation. Second segment with lateral marginals, fourth with a marginal row. GS₁ black, grey pollinose posteriorly, without marginals, GS₂ black.

Male genitalia as shown in fig. 1.

Wings : hyaline. Costal spine distinct. Section III of costa a little longer than section V, but shorter than section V+VI. Vein r_1 bare. Vein r_{4+5} bristly about halfway to the cross-vein.

Legs : mid-femora with comb and basal fringe. Mid-tibiae bare. Hind femora fringed, hind tibiae bare.

Length : 11-15 mm.

♀—Unknown.

Specimens examined : holotype, ♂, Mt. Shiritaka (Ishikawa Pref.), 20. VI. 1951 ;

* For convenience in promoting further investigation, the writer should like to use a general title "Taxonomical Studies on Muscoid Flies in Japan" instead of "Morphological Studies on Muscoid flies of medical importance in Japan" which the writer used to his papers published formerly.

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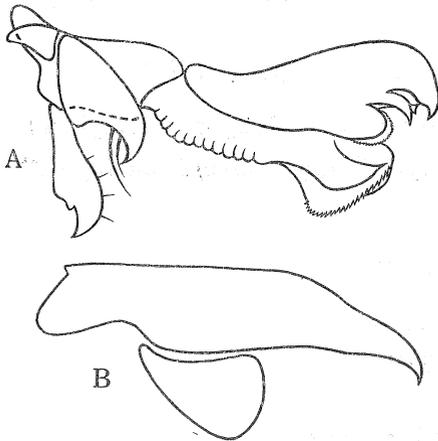


Fig. 1. Male genitalia of *Sarcophaga hokurikuensis* sp. nov.

A.—Phallosome and one paramere in side view ($\times 20$); B.—Lateral view of anal cercus and ninth coxite ($\times 20$).

as wide as frontal stripe. Parafrontalia and parafacialia yellowish-silver. Hairs on parafrontalia weak. Parafacials moderately strong. Cheek dark grey, with black hairs. Antennae black, third segment about thrice the second, arista biplumose. Back of head with three irregular rows of bristles, yellow soft hairs restricted to the center and below. Palpi black.

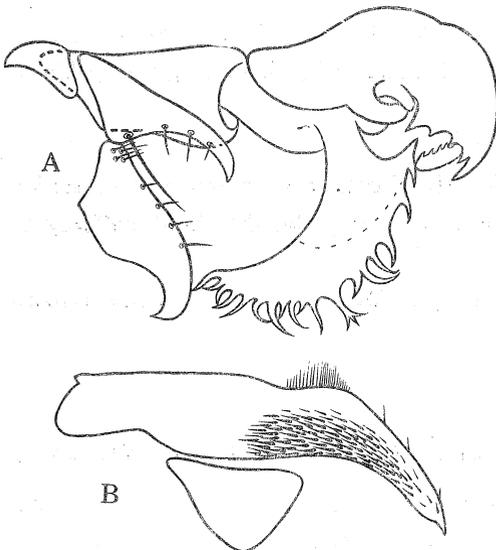


Fig. 2. Male genitalia of *Sarcophaga oitana* sp. nov.

A.—Phallosome and one paramere in side view ($\times 25$); B.—Lateral view of anal cercus and ninth coxite ($\times 20$).

paratypes, 2 ♂♂; the same data as the holotype; 12 ♂♂, Mt. Karasudake (altitude, 400–500m.), near Taketa (Oita Pref.) 20. VII. 1954.

Habitat: Japan (Honshu, Kyushu).

The small lateral processes and peculiar form of anterior appendages of phallosome are different from the other species of the same genus known to science.

Sarcophaga oitana sp. nov.

♂—Head: frons narrow, less than half an eye-width. Lateral verticals weak. Frontals about 12–13, diverging below. Frontal stripe black, somewhat narrower immediately below ocellar triangle, with distinct edges. Parafrontalia together about

Thorax: dark ashy-grey, with the usual black stripes. Propleura bare. Acrostichals 4~5+1, dorso-centrals 4~5+4, intra-alars 1+2~3. Scutellum with usual bristles. Sternopleurals arranged 1:1:1.

Abdomen: ground-color as in thorax, with the usual tessellation. Second segment with lateral marginals, fourth with a marginal row. GS₁ brownish-black, grey pollinose posteriorly, without marginals. GS₂ black. Hairs on genital segments weak. Sternum V with sparse long bristles on inner sides of arms.

Male genitalia as shown in fig. 2.

Wings: hyaline. Costal spine distinct. Section III of costa a little longer than section V. Vein r_1 bare. Vein r_{4+5} bristly about halfway to the cross-vein.

Legs : black, mid-femora with comb and sparse long hairs. Mid-tibiae bare. Hind femora and tibiae unfringed.

Length : 10-12 mm.

♀—Unknown.

Specimens examined : holotype, ♂, Mt. Suishi (altitude, 455m.) near Taketa (Oita Pref.), 17. VII. 1954 ; paratypes, 2 ♂♂, the same data as the holotype.

Habitat : Japan (Kyushu).

A medium-sized species without striking external characters. The phallosome is peculiar in having a small apical process, the long stylets and the large membranous anterior appendages.

Strongyloneura prasina BIGOT, 1886

This species was originally described by Bigot (1886)* basing upon only one female specimen from Japan without definite locality. The writer has not examined the type-specimen and the description is not perfect to show the characteristic details, but the present form collected by the writer agrees with the original description.

♂—*Head* : frons very narrow, frontalia reduced to a line, eye-facets not noticeably differing in size. Ocellars strong, proclinate. Frontal rows of bristles extending anteriorly to the base of the second antennal segment and narrowly diverging, each consisting of 7-8 bristles. Frontal stripe black. Parafrontalia and parafacialia with golden glints. Genal hairs mixed black and yellow. Face testaceous, lunule reddish-

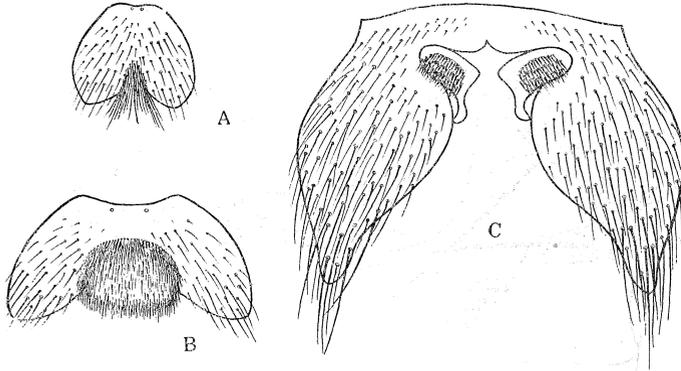


Fig. 3. *Strongyloneura prasina* Bigot. ($\times 20$).
A.—Third sternum ; B. — Fourth sternum ; C. — Fifth sternum.

brown. Antennae orange-brown, their bases separated by a narrow carina, third segment twice the second. Epistome slightly projecting below vibrissae. Arista biplumose nearly to tip. Palpi yellow. A bare glossy submarginal band on upper occiput extending almost entirely across its width.

Thorax : golden-green, with yellow dorsal dusting. Anterior spiracular covering black. Acrostichals 2~3+4~5, dorso-centrals 2+4, sternopleurals 1:1. Mesopleura with yellow hairs, among the usual black bristles. Pteropleural hairs yellow. Humeral and post-alar declivity bare. Pre-alar knob bare. Scutellum metallic green, with

* Bull. Soc. Ent. Fr. p. XIV.

yellowish dusting and with basals, discals, submarginals and apicals.

Abdomen : metallic-green, with cupreous reflections, the under surface white-dusted, changeable by light incidence. Abdomen unbanded, fourth tergite with strong marginal bristles. The third sternite with a sparse brush of black hairs at the posterior center, the fourth with a dense patch of black hairs distally, the fifth also with a tuft of hairs at inner bases of arms (see fig. 3). Anterior half of GS₁ bare, a row of strong bristles on hind margin. GS₂ strong, with sparse black hairs. Both genital segments concolorous with abdomen.

Male genitalia shown in fig. 4.

Wings : yellowish-hyaline, faintly browned apically on costa. Squamae and halteres

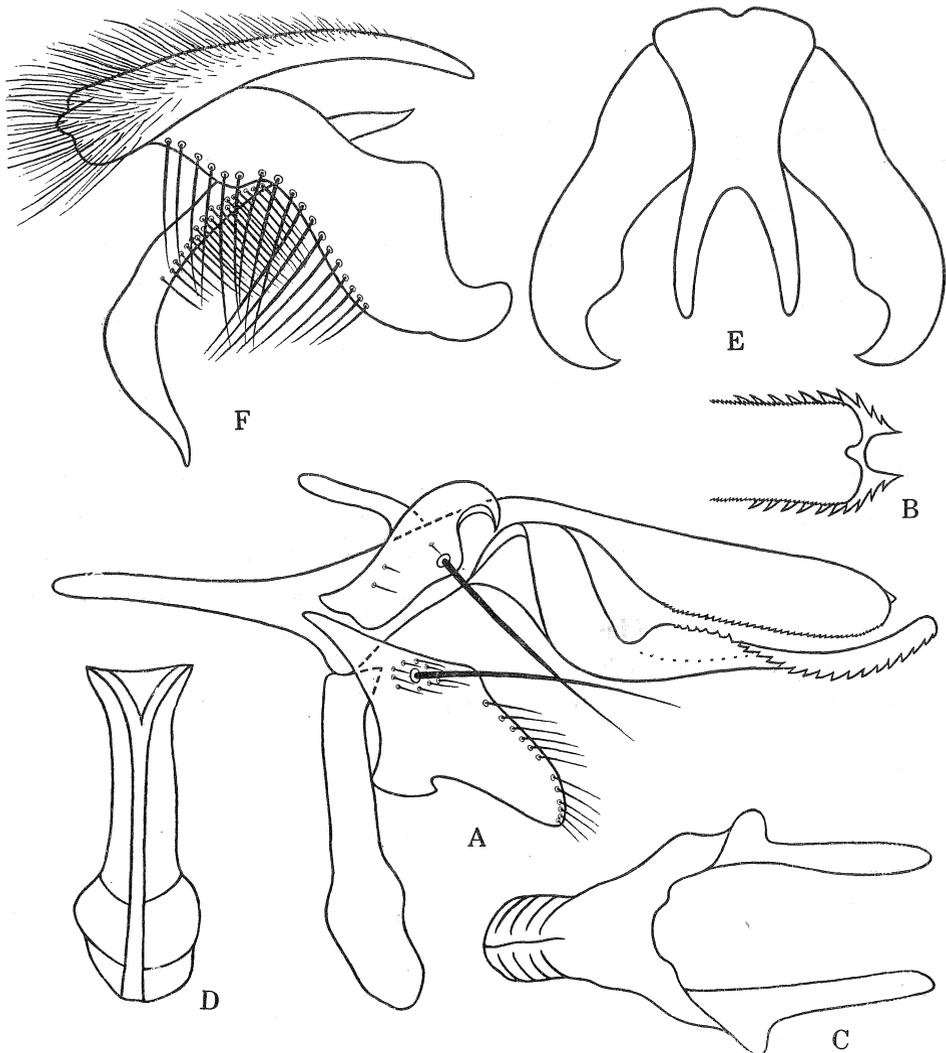


Fig. 4. Structural details of male genitalia of *Strongyloneura prasina* Bigot. A.—Phallosome and one paramere in side view ($\times 50$); B.—Dorsal view of the end of phallosome ($\times 50$); C.—Ninth tergo-sternum ($\times 25$); D.—Dorsal view of the apodeme of phallosome ($\times 50$); E.—Ventral view of anal cerci and ninth coxite ($\times 20$); F.—Lateral view of anal cercus, ninth coxite and lateral lobe ($\times 25$).

yellow. Basicosta yellow. Vein *R* at base above with row of black bristles, below without bristles. Vein r_{4+5} above with bristles on a little way beyond the basal node, below on node. Vein m_{1+2} evenly rounded. Lower squamae large, rather narrowly rounded at apex.

Legs : black, tibiae and bases of tarsi usually brownish-yellow. Mid-tibiae without a strong submedian ventral bristle.

♀—Frons nearly three-fourths of an eye. Lateral verticals strong. Frontal stripe rusty-brown, narrower than each parafrontalia, with a very elongate golden circum-ocellar triangle. Two fronto-orbitals. Scutellar apicals strong. Abdomen oval. Genital segments black.

Length : 7–10 mm.

Allotype : ♂, Mukaiyama (Sendai), 20. VIII. 1950.

Specimens examined : 1 ♀, the same locality as the allotype, 21. VIII. 1950 ; Mt. Oyama (Kanagawa Pref.), 2 ♂ ♂, 10. X. 1949 ; Yonago (Tottori Pref.), 1 ♂, 21–25. VI. 1954, 1 ♀, 11–15. VII. 1954, M. Nagahana leg.

Habitat : Japan (Honshu).

The presence of patches of black hairs on the sternites, Y-shaped anal cerci, peculiar shape of ninth coxite and characteristic form of phallosome are all highly specific.

Four specimens were found at flowers and on leaves, and also two specimens were trapped by Dr. M. Nagahana at Japanese Clock-trap in a house at Yonago City (Tottori Pref.).

Unless above stated, the specimens treated in this paper have been collected by the writer and the type-specimens are preserved in his collection.

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