

ANNOTATIONES ZOOLOGICAE JAPONENSES

Volume 38, No. 2—June 1965

Published by the Zoological Society of Japan
Zoological Institute, Tokyo University

Two New Species of the Drosophilidae from Korea

With 2 Text-figures

Yung Sun KANG*, Taek Jun LEE** and Kyu Whan BHANG*

*Department of Zoology, College of Liberal Arts and
Sciences, Seoul National University
and **Department of Zoology, College of Liberal Arts and
Sciences, Changang University
(Communicated by S. MAKINO)

In the present paper are described a new species for each of the genera *Leucophenga* and *Mycodrosophila* from Korea. The authors wish to offer cordial thanks to Dr. Haruo Takada, Kushiro-Women's College, Japan, for reading the manuscript and for valuable advice and criticism. They are also obliged to Dr. E. Momma for arranging this manuscript for publication.

Leucophengae (Leucophenga) sorii sp. nov. (Fig. 1)

Male and female: Body about 4.3 mm. Brownish yellow. Eye bare, dark red. Second orbital about 1/3 length of the first. Antenna yellowish orange, 3rd joint with brown pubescence. Front yellowish brown, about 1/3 as broad as the head-width. Arista with about 12 long branches including a small fork, about 3 below it. Palpus large, brownish yellow, with several shorter marginal setae. Only one prominent oral bristle. Carina low, broadened below. Cheek brownish yellow, and very narrow, about 1/14 as broad as the greatest diameter of eye.

Mesonotum and scutellum brownish yellow. Acrostichal hairs in about 10 irregular rows. Halteres pale yellow. Thoracic pleura pale yellow. Sterno-index about 0.8. Legs yellow, preapicals on all three tibiae, apicals on middle. Wings clear. Crossveins clear. Costal-index about 3.7, 4v-index about 1.6, 4c-index about 0.6, 5x-index about 1.1, C 3-bristles on basal about 1/2. Abdomen brownish yellow, with black bands as follows: 2 T with caudal band projected anteriorly at middle and each lateral side; 3-4 T with caudal bands reaching forward at middle; 5 T with caudal band interrupted at middle.

Periphallitic organs: Mainly yellow. Genital arch broadly truncate below, with about 5 upper and 5 lower marginal hairs. Clasper quadrate, longer than broad, with about 22 setae inserted on both external and internal surfaces. Anal plate elongate, separated from genital arch, and with about 23 hairs.

Phallic organs: Aedeagus yellowish grey, apically pointed. Anterior paramere brownish yellow. Posterior paramere dark brown, and thick median paired arms.

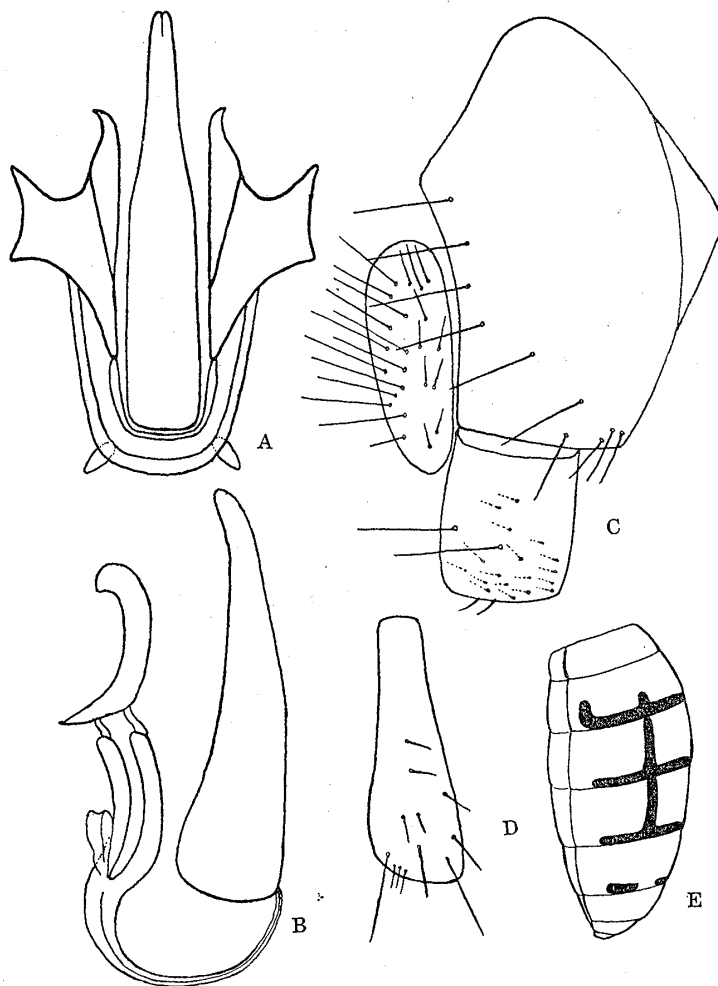


Fig. 1. *Leucophenga (Leucophenga) sorii* sp. nov.
A. Phallic organs (ventral aspect). B. do., part (lateral aspect). C. Peripheral phallic organs. D. Egg-guide. E. Male abdomen.

Egg-guides: Lobe greyish yellow, apically truncate, and with about 12 setae on the surface.

Holotype: ♂, Mt. Sori (Kwangneung area) Kyungki Province. 26 July, 1964 (Bhang).

Allotype: ♀, Collected together with holotype.

Paratype: 13 ♀♀, Mt. Sori, 26 July, 1964.

Feeding habits: Net sweeping on grasses.

Relationships: Allied to *Leucophenga concilia* Okada 1956, but differs from in the color pattern of abdominal tergites and in the shapes of phallic organs.

Remarks: The Holotype and Allotype are in the Department of Zoology,

Seoul National University. The Paratypes are in the Department of Biology, Chungang University.

Mycodrosophila nigropteropleura sp. nov. (Fig. 2)

Male and female: Body about 3.0 mm, with blackish patches. Eye dark red, bare. Antennae blackish yellow. Arista with about 7 branches, one below. Ocellar triangle and periorbits blackish brown. Front about half as broad as head-width, orange, and posteriorly blackish brown. Palpus yellow, with a long apical seta, as well as several shorter setae. Clypeus blackish brown. Carina blackish brown, high and narrow. Cheeks yellowish orange, about 1/4 as broad as the greatest diameter of eye. Second orbital minute. Only one prominent oral.

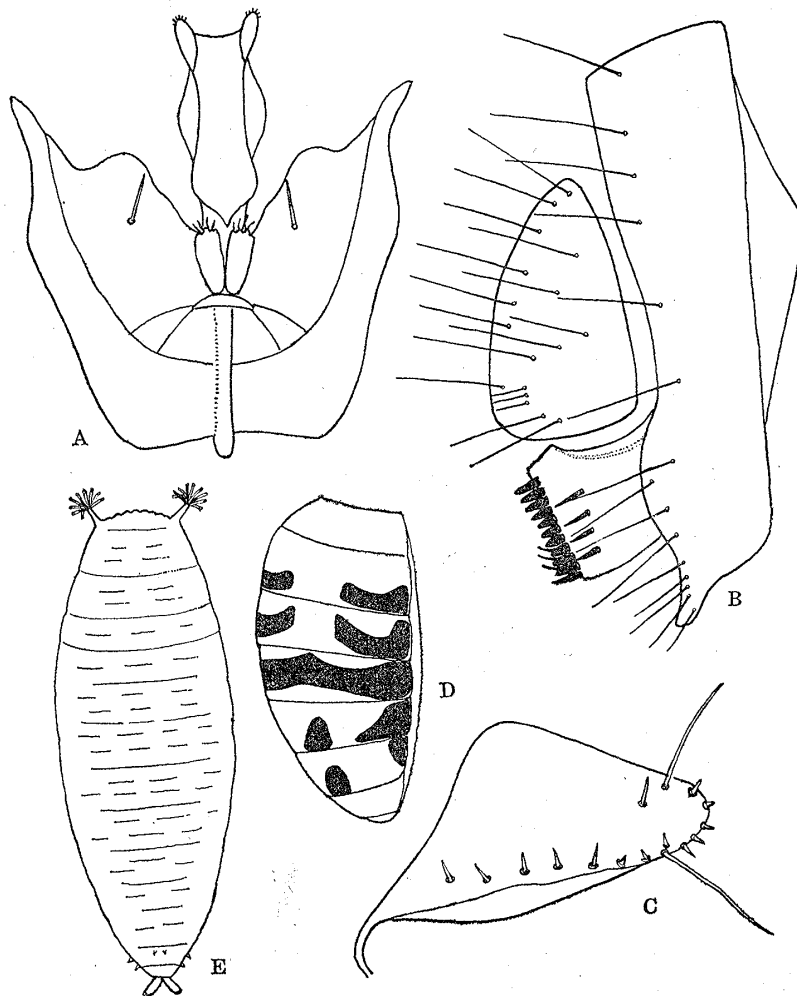


Fig. 2. *Mycodrosophila nigropteropleura* sp. nov.

A. Phallic organs (ventral aspect). B. Periphallic organs
C. Egg-guide. D. Male abdomen. E. Puparium.

Mesonotum and scutellum blackish brown. Acrostichal hairs in 10 or more irregular rows. Humeral bristles 3. Sterno-index about 0.6. Pleura mostly

pale, but with an oblique blackish brown stripe across pteropleura from metanotum.

Legs pale yellow, preapicals on hind tibia, apicals on fore and middle. Wings hyaline, veins yellow and black at the end of 1st costal section, crossveins clear. Costal-index about 2.0; 4v-index about 2.1; 4c-index about 1.2; 5x-index about 1.2, 3rd costal section with heavy bristles on its basal about 3/5. Halteres black.

Abdominal tergites pale yellow, with brownish black bands as follows: 2-3 T with caudal bands broadly interrupted at middle; 4 T with caudal band projected at middle and at both lateral sides to reach anterior margin; 5-6 T with spots at middle and both lateral sides.

Periphallallic organs: Genital arch pale yellow, narrowly prolonged at lower end, with about 6 upper marginal and 9 lower marginal hairs. Clasper pale yellow, and distally with about 10 black primary teeth, as well as 4-5 secondary teeth. Anal plate pale yellow, somewhat triangular, and with 15 hairs.

Phallic organs: Aedeagus pale yellow, and bilobed. Anterior parameres minute, blackish brown, and each with about 4 apical sensilla. Ventral fragma quadrate and nearly as long as broad.

Egg-guides: Lobe medially swollen, with about 13 yellowish marginal teeth, and a discal tooth and ultimate marginal ones being longest. There is a subterminal long hair on each lobe.

Pupae: Yellowish brown, anterior spiracles about 12, posterior spiracles divergent.

Holotype: ♂, Mt. Sori (Kwangneung area) Kyongki Province. 14 May, 1964 (Lee).

Allotype: ♀, Collected together with holotype.

Paratype: 8 ♂♂ and 9 ♀♀, Mt. Sori, 31 May, 1964. 10 ♂♂ and 12 ♀♀, Mt. Sori, 26 July, 1964. 1 ♀, Mt. Sori, 22 Sept, 1964.

Feeding habits: Net sweeping on fungi.

Relationships: Closely allied to *Mycodrosophila koreana* Lee and Takada 1959, and *Mycodrosophila claytonae* Wheeler and Takada 1963, but differs from in the color pattern of the thoracic pleura and in the shape of phallic organs.

Remarks: This species was easily raised in laboratory culture with standard *Drosophila media*. The karyotype consists of one pair of rod-shaped chromosomes, two pairs of V-shaped ones and one pair of dot-like ones. The Holotype and Allotype are in the Department of Biology, Chungang University. The Paratypes are in the Department of Zoology, Seoul National University.

REFERENCES

- Burla, H. 1954 Rev. Suiss. de Zool., **61**, 1.
 Kang, Y. S., O. K. Chung and H. Y. Lee 1959 Kor. Jour. Zool., **2**, 61.
 Lee, T. J. and H. Takada 1959 Annot. Zool. Japon., **32**, 94.
 Okada, T. 1956 Systematic study of Drosophilidae and allied families of Japan. Gihodo Co. (Tokyo), 1.
 Wheeler, M. R. 1954 Univ. Texas Publ., 5422, 47.
 ——— and H. Takada 1963 Ann. Entomol. Soc. Amer., **56**, 392.