

On a New Species, "*Drosophila trilineata*" sp. nov.

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韓國產 초파리 一新種에 對하여

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摘 要

Drosophila (Drosophila) trilineata sp. nov.: 國名, 세출등초파리

1. 本種은 1958年 8月 6日에 鬱陵島의 聖人峰에서 그리고 1958年 9月 5日 光陵에서 採集된바, 外形이 *Drosophila trivittata* STROBL과 酷似하기에 此種으로 잘못 同定發表하였던 것이다. 然而나 1959年 10月 英國 Edinburgh大學의 E. B. Basden 이 本種의 標本을 觀察한 다음 著者가 採集한 上記種은 Strobl種이 아니고 新種인듯 生覺한다는 暗示를 받았기에 그 後 細密히 調査한 바 新種으로 認定할 수 있었기에 여기서 發表하는 바이다.

2. 本種은 外形 特히 中背胸部의 stripe의 模樣으로 보아 *Drosophila trivittata* STROBL과 酷似하나 anal plate의 側部에 뚜렷한 knob가 있다는 點, genital arch와 clasper의 기리의 關係, phallic organ의 形態, egg-guide의 剛毛等に 뚜렷한 差異가 있다. 本種은 明白한 fungus feeder로서 laboratory breeding은 不可能이었다.

A considerable amount of attention has been given by the drosophilid geneticists to field collections of "Drosophilidae" during recent years all over the world.

The present author has collected drosophilids in various localities of Korea since 1955. The new species which the present work concerns was collected at Mt. Sung-In in Dagelet Is. on the 6th of August, 1958 and in Kwang-Neung (Kyunggi province) on the 5th of September, 1958 by the author. As the present species resembles closely to *Drosophila (Hirtodrosophila) trivittata* STROBL the author identified erroneously it as *D. (H.) trivittata* STROBL.

In 1959, Dr. Basden of Edinburgh University suggested me that this species seemed not to be *D. (H.) trivittata* but to be new species. Then the author examined it precisely and it was found to be new species.

The author is specially grateful to Dr. Basden of Edinburgh University, Scotland, for his invaluable suggestion given in the present work and Miss B. J. Rho for her kind help to do the present work and Professor T. J. Lee of College of Education, Kongjoo, Choong-Nam Province for his kind advice in giving a scientific name of the present species. The author could have opportunity to examine the present species collected by Miss H. Y. Lee of Department of Zoology, Seoul National University. Here, the author must express his cordial thanks to her.

Drosophila (Drosophila) trilineata sp. nov. Fig. 1.

Korean name: Sejul-deung-chopari

D. (H.) trivittata STROBL, Chung, 1958, Korean Jour. Zool.

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Male and female: Body yellowish orange, about 2.5mm. in length. Head (Fig. 1. A): Antenna brownish grey. Arista with about 7 branches including a fork, 1 below it. Palpus yellow, narrow, and with only one prominent bristle. Eyes bright red. Carina high. Front orange, about half as broad as head width. Ocellar triangle black. Periorbits yellow. Cheek yellow, about 1/4 as broad as the greatest diameter of eye. Second orbital about 1/4 size of the first. Second oral weak.

Mesonotum yellowish orange, with 3 broad black longitudinal stripes, which are confluent to become a quadrate patch near the scutellum; and also confluent anteriorly for a short length. Scutellum black, with anterior corners yellowish orange. Sterno-index about 1.0. Thoracic pleura brownish orange in

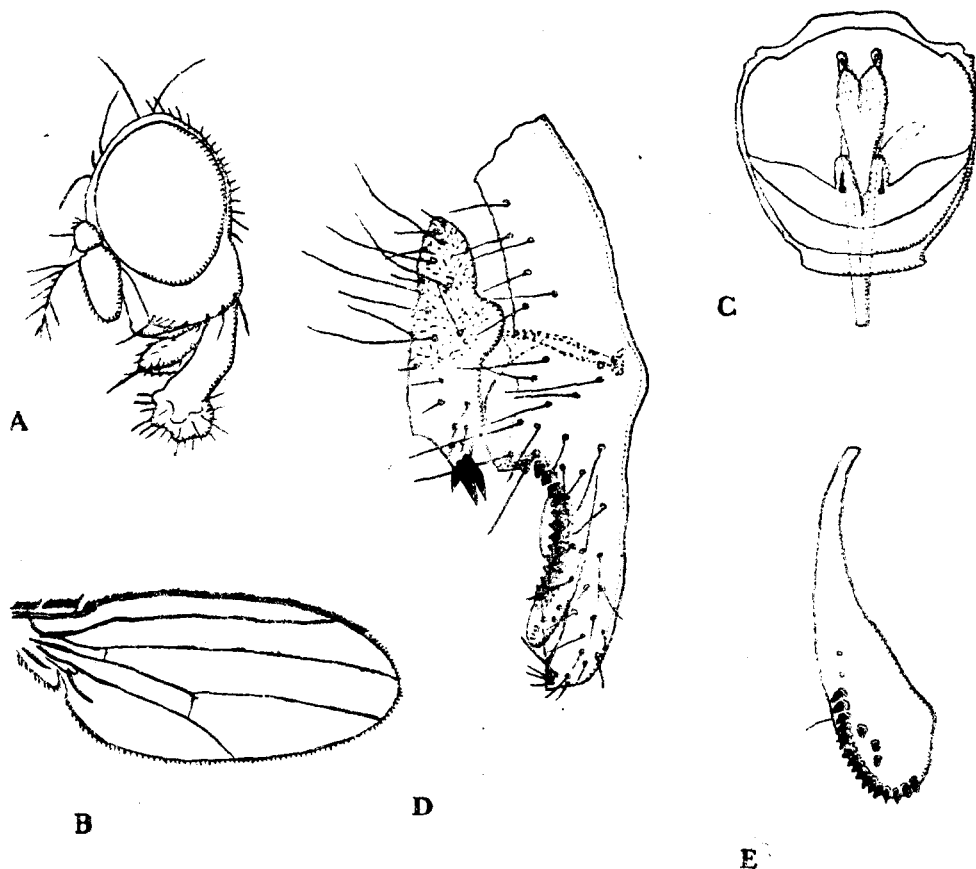


Fig. 1. *Drosophila (Drosophila) trilineata* sp. nov.

A. Head; B. Wing; C. Phallic organs (Ventral aspect); D.Periphallic organs (Lateral aspect); E. Egg-guide.

some, or dark brownish in others. Humerals two, almost equal. Acrostichal hairs in 6 rows.

Legs yellow. Preapicals on all three tibiae; apicals on middle. Wings (Fig. 1. B) hyaline, crossveins clear. C-index about 3.1; 4v-index about 2.6; 4c-index about 0.9; 5x-index about 2.2; C1-bristles 2; C3-bristles on basal $\frac{2}{5}$. Halteres yellow.

Abdomen yellow, each segment with an apical black band that is interrupted in the mid-dorsal line, and attenuated or interrupted between that line and each lateral margin of abdomen.

Periphallallic organs (Fig. 1. D): Genital arch pale yellow, elongate, apically narrowing, concave below, upper margin and middle part with about 15 hairs; lower margin with about 15-20 hairs. Clasper pale yellow, elongate tapering below, with about 13 black teeth arranged in a slightly concave row, and with a few setae. The bottom part (toe) of genital arch is longer than clasper and it and the clasper are more elongated so that their tips meet the tips of the opposite side. Anal plate pale yellow, elongate, with a characteristic knob at the side, and with a tuft of about 3 black stout bristles directed ventrad, and about 21 hairs.

Phallic organs (Fig. 1. C): Aedeagus pale yellow, apically bilobed. Anterior paramere somewhat shorter, with about 4 sensilla. Posterior paramere like long straight bar. Novasternum with a pair of about submedian spines.

Egg-guides (Fig. 1. E): Lobe pale yellowish brown, somewhat fusiform, and with upper margin slightly concave subapically, and with about 19 marginal and 3 discal black teeth. Subterminal hair inserted at about $\frac{2}{3}$ distad of the lower margin of lobe.

Holotype: ♂, Dagelet Island, 6 August, 1958 (Chung). Deposited at the College of Education, Ewha Womans University, Seoul.

Allotype: ♂, Collected together with holotype. Deposited at the College of Education, Ewha Womans University.

Paratype: 1 ♂, Kwang-Neung, 5 Sept., 1958; 7 ♂♂ and 9 ♀♀, Dagelet Island, 6 August, 1958; 30 ♂♂ and 30 ♀♀, Kwang-Neung, 25 July, 1959 (H. Y. Lee).

Distribution: South Korea

Feeding habits or collecting methods: Net sweeping on mushrooms.

Relationships: Closely resembles *D. trivittata* STROBL in having striped mesonotum but differs from it in form of anal plates, of genital arch, of egg-guides, and of phallic organs.

Remarks: Failed to breed on culture-medium in the laboratory.

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