

Takada, H. Sapporo University, Japan.
Curtonotidae and Drosophilidae from
Ussuriysk, U.S.S.R.

8 species of drosophilids flies are new to fauna of Eastern Siberia.

Family Curtonotidae
Genus Curtonotum Macquart
Curtonotum anus (Meigen), 1830.
female, July 12, 1984 (by Dr. Ozerov).

Family Drosophilidae
Genus Amiota Loew
Subgenus Amiota Loew
Amiota (Amiota) **rufescens** (Oldenberg), 1914
male, August 11, 1984 (by Dr. Ozerov).

Subgenus Phortica Shiner
Amiota (Phortica) **conifera takadai** Okada, 1977
male, July 7 and female, August 21, 1984
(by Dr. Ozerov).

Genus Leucophenga Mik
Subgenus Neoleucophenga Oldenberg
Leucophenga (Neoleucophenga)
quinquemaculipennis Okada, 1956.
male, July 9, 1984 (by Dr. Ozerov).

Faunistic and taxonomic data of Curtonotidae (Diptera) and Drosophilidae from Dr. A.L. Ozerov, the Zoological Museum, Moscow Lomonosov State University's material collected in Ussuriysk, Ussuri, U.S.S.R., from June 30 to August 31, 1984; of the

Genus Drosophila Fallen
Subgenus Scaptodrosophila Duda
Drosophila (Scaptodrosophila) **coracina**
Kikkawa & Peng, 1938.
9 females and 7 males, June 30 to August 31, 1984
(by Dr. Ozerov).

Subgenus Hirtodrosophila Duda
Drosophila (Hirtodrosophila) **confusa** Staeger, 1844
2 females, July 2 and a male, July 7, 1984
(by Dr. Ozerov).

Subgenus Sophophora Sturtevant
Drosophila (Sophophora) **auraria** Peng, 1937.
male, August 10, 1984 (by Dr. Ozerov).

Subgenus Drosophila Fallen
Drosophila (Drosophila) **testacea** von Roser, 1840
5 females and 5 males, July 5 to August 26, 1984
(by Dr. Ozerov).

Drosophila (Drosophila) **transversa** Fallen, 1823.
2 males, August 21 and 31, 1984 (by Dr. Ozerov).

Thompson, S.R. Ithaca College, New York
USNA. The effect of density on death rates
in Drosophila population cages.

death vials could be the territorial behavior of flies within the cage. For example, flies could establish a particular space or "moving territory" around themselves from which they would keep other flies. The less successful flies would be driven away from desirable space and other resources, and could find themselves in the death vials, space which is not fought over. Flies found in the death vial could be of three types: (1) healthy flies who inadvertently find themselves within the vial and who can escape; (2) moribund flies, those who exhibit erratic, uncoordinated behavior and who cannot escape the death vial; and (3) dead flies. If territoriality plays a role in the movement of flies to the specific death vials, then increasing the cage density should cause an increase in the rate of emigration to death vials. This study examines the effect of increase in cage density on death rates.

Seven-day old adult Oregon-R, equal numbers of males and females, were inserted in population cages (lucite boxes 135 x 110 x 160 mm o.d., on 115 mm supports, screen vented at each end, and fitted with six standard 25 x 95 mm culture vials in two rows), at known densities. All but one of the culture vials contained about 10 ml of a standard cornmeal, molasses, Brewer's yeast, agar medium. The empty vial, which occupied a terminal position, served as a "death vial," and contained a 1 x 4 cm heavy paper strip to ease the departure of healthy flies from the vial. On start-up, flies were made to crawl from clean, empty vials into the cage so that no dead or moribund flies entered the cage. The numbers of dead and moribund flies were enumerated every day for a period of seven days, with a new, clean death vial inserted at each count. Before the death vials were removed for classification, the vials were repeatedly disturbed, "rattled," rotated, etc., to cause relatively healthy flies to leave the death vial. Those flies remaining in the death vial were anesthetized with ethyl ether and classified; moribund flies being those which did not leave the death vial, but which recovered from the ether treatment, and dead flies being those which either did not recover from the ether or which were obviously dead prior to treatment.

Milkman (1975) demonstrated that flies in **Drosophila melanogaster** population cages will preferentially die in empty vials (food cups), if they are provided; such sites were termed "death vials." According to Milkman, one of the causes of emigration of flies to