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## Tribe Drosophilini of the Asian part of the USSR

(Diptera, Drosophilidae)

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### Abstract

A List of the species of the tribe Drosophilini of the asian part of the USSR is given. Two new species are described: *Drosophila bondarenkoi* sp. nov. and *Scaptomyza baechlii* sp. nov. The Lectotype of *Hirtodrosophila ussurica* (DUDA, 1935) is designated. New synonymy is proposed: *Drosophila (Drosophila) virilis* STURTEVANT, 1916 = *Drosophila brevicornis* DUDA, 1935 syn. nov. *Drosophila (Drosophila) brachynephros* OKADA, 1956, *D. (D.) curvispina* OKADA & KUROKAWA, 1957, *D. (D.) ezoana* TAKADA & OKADA, 1958, *D. (D.) lacertosa* OKADA, 1956, *D. (D.) makinoi* OKADA, 1956, *D. (D.) moriwakii* OKADA & KUROKAWA, 1957, *D. (D.) multispina* OKADA, 1956, *D. (D.) okadai* TAKADA, 1959, *D. (D.) parakuntzei* OKADA, 1973, *D. (D.) sordidula* KIKKAWA & PENG, 1938, *D. (Sophophora) biauraria* BOCK & WHEELER, 1972, *D. (S.) alpina* BURLA, 1948, *Hirtodrosophila alboralis* MOMMA & TAKADA, 1954, *H. macromaculata* KANG & LEE, 1961, *H. nokogiri* OKADA, 1956, *H. pseudonokogiri* KANG, LEE & BAHNG, 1965, *H. quadrivittata* OKADA, 1956, *H. trilineata* CHUNG, 1960, *Lordiphosa magnipectinata* OKADA, 1956, *L. pseudotenuicauda* TODA, 1983, *L. tenuicauda* OKADA, 1956, *Scaptodrosophila puncticeps* OKADA, 1956 and *S. throckmortonii* OKADA, 1973 are recorded for the fauna of the USSR for the first time.

### Zusammenfassung

Die vorliegende Arbeit verzeichnet eine Liste der Drosophilini-Arten der asiatischen GSU. Zwei neue Arten werden beschrieben: *Drosophila bondarenkoi* sp. nov. und

*Scaptomyza baechlii* sp. nov. Der Lectotypus von *Hirtodrosophila ussurica* wird festgelegt. Eine neue Synonymie wurde erkannt: *Drosophila (Drosophila) virilis* STURTEVANT, 1916 = *Drosophila brevicornis* DUDA, 1935 syn. nov. *Drosophila (Drosophila) brachynephros* OKADA, 1956, *D. (D.) curvispina* OKADA & KUROKAWA, 1957, *D. (D.) ezoana* TAKADA & OKADA, 1958, *D. (D.) lacertosa* OKADA, 1956, *D. (D.) makinoi* OKADA, 1956, *D. (D.) moriwakii* OKADA & KUROKAWA, 1957, *D. (D.) multispina* OKADA, 1956, *D. (D.) okadai* TAKADA, 1959, *D. (D.) parakuntzei* OKADA, 1973, *D. (D.) sordidula* KIKKAWA & PENG, 1938, *D. (Sophophora) biauraria* BOCK & WHEELER, 1972, *D. (S.) alpina* BURLA, 1948, *Hirtodrosophila alboralis* MOMMA & TAKADA, 1954, *H. macromaculata* KANG & LEE, 1961, *H. nokogiri* OKADA, 1956, *H. pseudonokogiri* KANG, LEE & BAHNG, 1965, *H. quadrivittata* OKADA, 1956, *H. trilineata* CHUNG, 1960, *Lordiphosa magnipectinata* OKADA, 1956, *L. pseudotenuicauda* TODA, 1983, *L. tenuicauda* OKADA, 1956, *Scaptodrosophila puncticeps* OKADA, 1956 und *S. throckmortonii* OKADA, 1973 werden erstmals für die Fauna der GSU nachgewiesen.

### Introduction

The Tribe Drosophilini sensu GRIMALDI (1990) includes 39 genera; 8 of these are distributed in the asian part of the USSR. About 40 species have been known from this territory (DUDA 1935; KIKKAWA & PENG 1938; HACKMANN 1959; STACKELBERG 1970; MÁCA 1988; GORNOSTAYEV 1989). This article adds 25 species (two of them are new for science) of 6 genera. The genus *Mycodrosophila* was studied recently (SIDORENKO 1990) and is not included in this report; the genus *Microdrosophila* with only one species in asian part of the USSR is considered elsewhere (SIDORENKO 1992).

The majority of the material was collected by the author, other specimens are from Zoological Institute in Leningrad. The list of the species is given according to GRIMALDI's classification of Drosophilidae (1990). A part of the types (including holotypes) are deposited in the Institute of Biology and Pedology in Vladivostok, USSR, others are in the Zoologische Staatssammlung in München, Germany, and in the Zoologisches Museum of the University of Zürich, Switzerland.

Abbreviations: Mat. = Material; Distr. = Distribution.

### List of Species

#### Drosophilini, Drosophilina, Drosophiliti

##### *Scaptodrosophila* DUDA, 1923

##### *Scaptodrosophila coracina* (KIKKAWA & PENG, 1938)

Mat.: 47 ♂♂, ♀♀. Ussuri Region: 15 km SE Barabash-Levada; Ussurian Reserve; Jakovlevka; Novomikhailovka; 20 km NW Melnitchnoe; 50 km W Melnitchnoe, Iman River, Jigitovka River. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Region: Khingansky Reserve, Kundur. Kurile Is.: Kunashir Island, Tretjakovo.

Distr.: USSR: Far East.

***Scaptodrosophila pattersoni* (PIPKIN, 1956)**

Distr.: USSR: Uzbekistan (MACA 1988).

***Scaptodrosophila puncticeps* (OKADA, 1956)**

Mat.: 6 ♂♂, ♀♀, Kurile Is.: Kunashir Island.

Distr.: USSR (new record): Far East.

***Scaptodrosophila throcmortoni* (OKADA, 1971)**

Mat.: 3 ♂♂, 1 ♀. Ussuri Region: Ussurian Reserve; Jakovlevka.

Distr.: USSR (new record): Far East.

***Chymomyza* genus group**

***Chymomyza* CZERNY, 1903**

***Chymomyza caudatula* OLDENBERG, 1914**

Mat.: 67 ♂♂, ♀♀. Ussuri Region: Ussurian Reserve; Novokatchalinsk (coll. MOROKHOVETS); vic. Dersu; vic. Dalny Kut, left bank of Iman River, mouth of Armu River. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River.

Distr.: USSR: European part; Far East.

***Chymomyza costata* (ZETTERSTEDT, 1838)**

Distr.: USSR: European part; Far East (GORNOSTAYEV 1989).

***Chymomyza distincta* (EGGER, 1862)**

Distr.: USSR: European part; Amur Region (GORNOSTAYEV 1989).

***Chymomyza fuscimana* (ZETTERSTEDT, 1838)**

Mat.: 11 ♂♂, ♀♀. Ussuri Region: Mouth of Armu River; vic. Dalny Kut, left bank of Iman River, 20 km NW Glubinnoe, Dalnaya River. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River.

Distr.: USSR: European part; Far East.

***Hirtodrosophila* genus complex, *Zygothrica* genus group**

***Hirtodrosophila* DUDA, 1923**

***Hirtodrosophila alboralis* (MOMMA & TAKADA, 1954)**

Mat.: 148 ♂♂, ♀♀. Ussuri Region: Andreevka; 15 km SWW Nezhino, Ananevka River, Barabash; 15 km SE Barabash-Levada; 10 km NE Livadia (coll. RODIONOV); 20 km NW Lazo, Lazovka River, Lazovsky Reserve, Petrov I.; Ussurian Reserve; Jakovlevka; Novomikhailovka; Novovladimirovka. Kurile Is.: Kunashir Island (from various parts of the island).

Distr.: USSR (new record): Far East.

***Hirtodrosophila histrioides* (OKADA & KUROKAWA, 1957)**

Mat.: 81 ♂♂, ♀♀. Ussuri Region: Andreevka; Sukhanovka; Tsukanovo; Barabash; 15 km SE Barabash-Levada; Zanadvorovka; vic. Nakhodka; Lazovsky Reserve; Ussurian Reserve; Ljalitchi; Jakovlevka; Novomikhailovka; vic. Lenino; Bogolyubovka; 65 km W Melnitchnoe, Iman River. Amur Region: Khingansky Reserve, Kundur. Kurile Is.: Kunashir Island, Stolbtchaty Cape; Shikotan Island (coll. Kasparyan). Khabarovsk Prov.: Komsomolsky Reserve, Gorin River.

Distr.: USSR: Far East.

***Hirtodrosophila macromaculata* (KANG & LEE, 1961)**

Mat.: 20 ♂♂, ♀♀. Ussuri Region: 15 km SWW Nezhino, Ananevka River, Ussurian Reserve; vic. Dersu.

Distr.: USSR (new record): Far East.

***Hirtodrosophila nokogiri* (OKADA, 1956)**

Mat.: 14 ♂♂, ♀♀. Ussuri Region: 15 km SWW Nezhino, Ananevka River; 20 km NW Lazo, Lazovka River; Ussurian Reserve. Amur Region: Khingansky Reserve, Kundur.

Distr.: USSR (new record): Far East.

***Hirtodrosophila pseudonokogiri* (KANG, LEE & BAHNG, 1965)**

Mat.: 2 ♂♂, 3 ♀♀. Ussuri Region: 15 km SWW Nezhino, Ananevka River; Ussurian Reserve.

Distr.: USSR (new record): Far East.

***Hirtodrosophila quadrivittata* (OKADA, 1956)**

Mat.: 14 ♂♂, ♀♀. Ussuri Region: 15 km SWW Nezhino, Ananevka River; Ussurian Reserve.

Distr.: USSR (new record): Far East.

***Hirtodrosophila sexvittata* (OKADA, 1956)**

Mat.: 434 ♂♂, ♀♀. Ussuri Region: Tsukanovo; Andreevka; Sukhanovka; Zanadvorovka; Barabash; 15 km SWW Nezhino, Ananevka River; vic. Nakhodka; Barabash-Levada; vic. Vladivostok (coll. FALCOVITCH); Brovnitchi; 32 km S Lazo, Benevka River; Ussurian Reserve; Ljalitchi; Jakovlevka; Evseevka; Novovladimirovka; Novokatchalinsk (coll. MOROKHOVETS); Novomikhailovka; 20 km NW Melnitchnoe; 50 km W Melnitchnoe, Iman River; Jigitovka River. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Region: Khingansky Reserve, Kundur. Kurile Is.: Kunashir Island.

Distr.: USSR: Far East.

***Hirtodrosophila trilineata* (CHUNG, 1960)**

Mat.: 15 ♂♂, ♀♀. Ussuri Region: Tsukanovo; Ussurian Reserve; Novovladimirovka; Evseevka. Kuril Is.: Kunashir Island.

Distr.: USSR (new record): Far East.

***Hirtodrosophila trivittata* (STROBL, 1893)**

Mat.: 57 ♂♂, ♀♀. Ussuri Region: 15 km SWW Nezhino, Ananevka River, Vladivostok (coll. FALKOVITCH); 20 km NW Lazo, Lazovka River, Ussurian Reserve; Novovladimirovka; 50 km W Melnitchnoe, Iman River, Jigitovka River. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Region: Khingansky Reserve, Kundur. Kurile Is.: Kunashir Island. Burjatia: Vic. Mondy (coll. GORODKOV). Altaj Region: Vic. Teletskoe Lake (coll. SILANTJEV).

Distr.: USSR: European part, Crimea, Siberia, Far East.

***Hirtodrosophila ussurica* (DUDA, 1935)**

Mat.: Lectotype male, Tigrovaja, Sutchan District, Ussuri Region, 9.VI.1927 (coll. STACKELBERG); *Drosophila 3vittata* STROBL var. *ussurica* male Type det. DUDA (at present designation). Paralectotypes: 1 ♂, 10 ♀♀, the same data as lectotype.

Distr.: USSR: Far East.

***Drosophila* genus complex**

***Drosophila* FALLEN, 1823, (*Dorsilopha*) STURTEVANT, 1942**

***Drosophila* (*Dorsilopha*) *busckii* COQUILLET, 1901**

Mat.: 35 ♂♂, ♀♀. Ussuri Region: Ussurian Reserve; Dmitrievka; Novovladimirovka; Novokatchalinsk (coll. MOROKHOVETS). Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Region: Khingansky Reserve, Kundur. Kurile Is.: Kunashir Island, Tretjakovo.

Distr.: USSR: European part, Caucasus, Far East.

**Subgenus *Drosophila* s.str.**

***Drosophila* (*Drosophila*) *angularis* OKADA, 1956**

Distr.: USSR: Far East (GORNOSTAYEV 1989). This record may refer to any Far Eastern species of *quinaria* species group.

***Drosophila* (*Drosophila*) *avicennai* MACA, 1988**

Distr.: USSR: Kazakhstan (MACA 1988).

***Drosophila* (*Drosophila*) *bondarenkoi* sp. nov.**

Holotype male, USSR, Khabarovsk Prov., Komsomolsky Reserve, 50 km off the mouth of Gorin River, 28.VII.1990 (coll. SIDORENKO).

Paratypes: 2 ♂♂, the same data as the holotype, 27., 28.VII.1990.

Body length 2.2 - 2.5 mm, grayish brown. Eye dark red, with fine pile. Antenna with 2nd joint grayish yellow, 3rd yellow. Arista with 4 upper and 2 lower branches in addition to terminal fork. Frons (measured at level of anterior ocellus) 1/2 as broad as head, black; anteriorly paler and with a few frontal hairs. Ocellar triangle black. Periorbits grayish yellow. Anterior reclinate orbital bristle 3/10 length of posterior reclinate; proclinate orbital bristle 6/7 length of posterior one. Face yellowish white; carina high, broad. Clypeus yellowish white. Cheek yellowish gray, 1/8 as broad as maximum diameter of eye.

Vibrissa strong; 2nd oral bristle 1/4 length of vi. Palpus yellow, flattened, with 2 prominent setae apically and ventrally.

Scutellum grayish brown, with median dark brown longitudinal stripe. Thoracic pleura grayish brown. Humerus yellowish gray; 2 humerals, lower one longer. Acrostichal hairs in 6 rows. Anterior dorsocentrals 5/9 length of posterior ones; length distance of dorsocentrals 1/2 cross distance. Prescutellars absent. Anterior scutellar bristle 9/10 length of posterior. Sterno-index 5/9.

Legs yellowish gray. Preapicals on mid tibia; apicals on hind tibia.

Wing slightly fuscoid. Veins yellowish brown; crossveins darkened. C1-bristles 2, equal. Wing indices: C - 2.58 (2.54 - 2.62); 4C - 0.89 (0.86 - 0.92); 4V - 1.7 (1.63 - 1.77); 5x - 1.29 (1.07 - 1.55); Ac - 3.12 (3.0 - 3.25); C<sub>3</sub>-fringe 0.48 (0.46 - 0.55). Halteres yellowish white.

Abdominal tergites yellowish gray with brown patches. Sternites pale yellow.

Periphallial organs fig.1. Epandrium with 5 bristles in upper part. Ventral lobe of epandrium elongated with numerous recurved bristles. Surstylus with about 16 teeth in concave row. Cercus separated from epandrium, with more than 10 bristles.

Phallic organs fig.2. Aedeagus trilobed. Anterior parameres small, with 1 sensilla apically. Posterior parameres with 3 chitinized processes.

Relationships: Probably belongs to *quinaria* section, but differs from all known East Palearctic species of this section in having well developed, densely haired ventral lobe of epandrium.

Distr.: USSR: Far East.

Remark: This species is named in honour of my friend Mr. I.V. BONDARENKO (Komsomolsk-on-Amur, USSR) for his assistance during field trips in Komsomolsky reserve.

***Drosophila (Drosophila) brachynephros* OKADA, 1956**

Mat.: 31 ♂♂, ♀♀. Ussuri Region: Tsukanovo; Andreevka; Barabash; 15 km SE Barabash-Levada; Nikolaevka; Lazovsky Reserve; Ussurian Reserve; Ljalitchi; Novovladimirovka; Novokatchalinsk (coll. MOROKHOVETS). Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Region: Khingansky Reserve, Kundur.

Distr.: USSR (new record): Far East.

***Drosophila (Drosophila) curvispina* WATABE & TODA, 1984**

Mat.: 31 ♂♂, ♀♀. Ussuri Region: 10 km NE Livadia (coll. RODIONOV); vic. Nakhodka; Ussurian Reserve; Bogolyubovka; 50 km W Melnitchnoe; Jigitovka River. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Region: Khingansky Reserve, Kundur. Kuril Is.: Kunashir Island, Tretjakovo.

Distr.: USSR (new record): Far East.

***Drosophila (Drosophila) ezoana* TAKADA & OKADA, 1958**

Mat.: 28 ♂♂, ♀♀. Ussuri Region: 20 km NW Glubinnoe, Dalnaya River.

Distr.: USSR (new record): Far East.

***Drosophila (Drosophila) funebris* (FABRICIUS, 1787)**

Mat.: 198 ♂♂, ♀♀. Ussuri Region: 25 km W Nakhodka, Yuzhno-Morskoy (coll. LELEJ); Artem (coll. PETROVA); Primorskaya (coll. BEREZANTSEV); Nesterovka; Novoselischche; Barabash-Lavada; 15 km SE Barabash-Lavada; Ussurian Reserve; Jakovlevka (colls. DIAKONOV, FILIPIJEV); Tchernigovka (coll. EMELJANOV); Dmitrievka (coll. KHOLIN); Evseevka; Novokatchalinsk (coll. MOROKHOVETS). Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Region: Khingansky Reserve, Kundur; Blagoveschtchensk. Kurile Is.: Kunashir Island. Kamtchatka: Petropavlovsk-Kamtchatsky (coll. NOVOGRABLENOV). Irkutsk Prov.: Vic. Mina (coll. GRUNIN); Taishet (coll. BOROVSKY). Tyumen Prov.: Khanty-Mansiysk (coll. GORODKOV). Krasnoyarsk Region: Minusinsk (coll. TYUTCHEV).

Distr.: USSR: European part, Caucasus, Middle Asia, Siberia, Far East.

***Drosophila (Drosophila) histrio* MEIGEN, 1830**

Mat.: 130 ♂♂, ♀♀. Ussuri Region: Nakhodka; Barabash; 15 km SE Barabash-Lavada; Ussurian Reserve; Jakovlevka; Novokatchalinsk (coll. MOROKHOVETS); Bogolyubovka; Jigitovka River. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Region: Khingansky Reserve, Kundur. Kurile Is.: Kunashir Island; Shikotan Island (coll. KASPARYAN). Irkutsk Prov.: Listvjanka (coll. GORODKOV). Burjatia: Barguzin Reserve (coll. GORODKOV). Krasnoyarsk Region: Vic. Krasnoyarsk (coll. GORODKOV). Tyumen Prov.: Vic. Tyumen; Tobolsk; Berjezovo-na-Obi (coll. GORODKOV).

Distr.: USSR: European part, Siberia, Far East.

***Drosophila (Drosophila) immigrans* STURTEVANT, 1921**

Mat.: 17 ♂♂, ♀♀. Ussuri Region: Ussurian Reserve; "Kedrovaya Pad" Reserve (coll. ZLOBIN); Dmitrievka; 20 km NW Glubinnoe, Dalnaya River.

Distr.: USSR: European part, Caucasus, Far East.

***Drosophila (Drosophila) kuntzei* DUDA, 1924**

Mat.: 15 ♂♂, ♀♀. Ussuri Region: Novokievsk (coll. MISCHTCHENKO); Romanovka; 65 km N Plastun; Vysokaya Mt., 1500 m. Amur Region: Tynda (coll. GORODKOV). Jakutia: Nagorny (coll. GORODKOV); Teply Klyutch, 70 km ENE Khandyga (coll. GORODKOV); Jakutsk, left bank of Lena River (coll. BIANKI).

Distr.: USSR: European part, Siberia, Far East.

***Drosophila (Drosophila) lacertosa* OKADA, 1956**

Mat.: 1 ♂, 1 ♀. Ussuri Region: Ussurian Reserve, 30.V.1990; 1 m, Kurile Is., Kunashir Island, 6 km S Lagunnoe Lake, 15.VIII.1989.

Distr.: USSR (new record): Far East.

***Drosophila (Drosophila) limbata* ROSER, 1840**

Mat.: 1 ♂. Amur Region: Khingansky Reserve, 5 km E Ukrainka, 11.VI.1987.

Distr.: USSR: European part, Far East.

***Drosophila (Drosophila) littoralis* MEIGEN, 1830**

Distr.: USSR: European part, Caucasus, Far East (STACKELBERG 1970).

***Drosophila (Drosophila) makinoidae* OKADA, 1956**

Mat.: 144 ♂♂, ♀♀. Ussuri Region: Vysokaya Mt., 1500 m. Kurile Is.: Kunashir Island, vic. Yuzhno-Kurilsk.

Distr.: USSR (new record): Far East.

***Drosophila (Drosophila) moriwakii* OKADA & KUROKAWA, 1957**

Mat.: 102 ♂♂, ♀♀. Ussuri Region: 15 km SWW Nezhino, Ananevka River, Ussurian Reserve. Kurile Is.: Kunashir Island, Tretjakovo.

Distr.: USSR (new record): Far East.

***Drosophila (Drosophila) multispina* OKADA, 1956**

Mat.: 2 ♂♂. Ussuri Region: Ussurian Reserve, 16., 20.VIII.1988.

Distr.: USSR (new record): Far East.

***Drosophila (Drosophila) nigromaculata* KIKKAWA & PENG, 1938**

Mat.: 124 ♂♂, ♀♀. Ussuri Region: Rjazanovka (coll. MAKARKIN); Barabash; 10 km NE Livadia (coll. RODIONOV); Romanovka; 32 km S Lazo, Benevka River, Ussurian Reserve; Dmitrievka. Saghalien: Novoaleksandrovsk (colls. BASARUKIN, GORODKOV); Pravda, S Kholmsk (coll. KERZHNER). Kurile Is.: Kunashir Island; Khabomai Island (coll. Violovitch).

Distr.: USSR: Far East.

***Drosophila (Drosophila) okadae* TAKADA, 1959**

Mat.: 29 ♂♂, ♀♀. Ussuri Region: Ussurian Reserve. Saghalien: Rakuma (at present Kholmsk) (coll. STRELKOV). Kurile Is.: Kunashir I., Tretjakovo.

Distr.: USSR (new record): Far East.

***Drosophila (Drosophila) parakuntzei* OKADA, 1973**

Mat.: 1 ♂. SE Altaj, Ulandrik River, 27.VI.1964 (coll. Grunin).

Distr.: USSR (new record): Altaj.

***Drosophila (Drosophila) sordidula* KIKKAWA & PENG, 1938**

Mat.: 11 ♂♂, ♀♀. Ussuri Region: Ussurian Reserve.

Distr.: USSR (new record): Far East.

***Drosophila (Drosophila) testacea* ROSER, 1840**

Mat.: 551 ♂♂, ♀♀. Ussuri Region: Andreevka; Barabash; 15 km SWW Nezhino, Ananevka River; 15 km SE Barabash-Levada; Lazovsky Reserve, Petrov I.; Ussurian Reserve; Nikolaevka; Novokatchalinsk (coll. MOROKHOVETS); vic. Lenino; 50 km W Melnitchnoe; Jigitovka River, 65 km N Plastun. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Region: Khingansky Reserve, Kundur, Arkhara. Kurile Is.: Kunashir



Island. Saghalien: Vic. Yuzhno-Sakhalinsk (coll. VILOVITCH). Krasnoyarsk Region: Vic. Krasnoyarsk (coll. GORODKOV).

Distr.: USSR: European part, Siberia, Far East.

***Drosophila (Drosophila) transversa* FALLEN, 1823**

Mat.: 4 ♂♂. Khabarovsk Prov., Komsomolsky Reserve, Gorin River, 19., 27., 28.VII.1990.

Distr.: USSR: European part, Uzbekistan, Far East.

***Drosophila (Drosophila) unispina* OKADA, 1956**

Mat.: 34 ♂♂, ♀♀. Ussuri Region: Vic. Nakhodka; "Kedrovaya Pad" Reserve (coll. ZINOVJEV); 15 km SWW Nezhino, Ananevka River, 32 km S Lazo, Benevka River, Lazovsky Reserve; Ussurian Reserve; Evseevka; Novomikhailovka.

Distr.: USSR: Far East.

***Drosophila (Drosophila) virilis* STURTEVANT, 1916**

*Drosophila brevicornis* DUDA, 1935: 76, *syn. nov.*

Mat.: 1 ♀, Jakovlevka, Spas. u., Ussur. kr., 23.VI.1926 DJAKONOV, FILIPJEV; within the village limits; 613; *Drosophila brevicornis* DUDA female Typus det. O. DUDA; Holotypus *Drosophila brevicornis* DUDA, 1935; *Drosophila (Drosophila) virilis* STURTEVANT, 1916 det. M.J. TODA.

Distr.: USSR: European part, Caucasus, Far East.

**Subgenus *Sophophora* STURTEVANT, 1939**

***Drosophila (Sophophora) ambigua* POMINI, 1940**

Distr.: USSR: Uzbekistan (MACA 1988).

***Drosophila (Sophophora) auraria* PENG, 1937**

Mat.: 1 ♂, Ussuri Region, Ussurian Reserve, 11.VIII.1988.

Distr.: USSR: Far East.

***Drosophila (Sophophora) alpina* BURLA, 1948**

Mat.: 3 ♂♂, 2 ♀♀, Burjatia, vic. Sosnovka, Barguzin Reserve, 2.VIII.1962 (coll. GORODKOV).

Distr.: USSR (new record): Burjatia.

***Drosophila (Sophophora) biauraria* BOCK & WHEELER, 1972**

Mat.: 15 ♂♂, ♀♀. Ussuri Region: Romanovka; Sadovij; Ussurian Reserve. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River.

Distr.: USSR (new record): Far East.

***Drosophila (Sophophora) bifasciata* POMINI, 1940**

Mat.: 180 ♂♂, ♀♀. Ussuri Region: Vladivostok (coll. MUTIN); Ussurian Reserve; Jakovlevka (colls DJAKONOV, FILIPJEV). Khabarovsk Prov.: Komsomolsky Reserve, Gorin

River. Amur Region: Klimoutsy (coll. BORISOVA). Kurile Is.: Kunashir Island, 6 km S Lagunnoe Lake. Irkutsk Region: Vic. Bratsk, Padun (coll. MONTCHADSKY).

Distr.: USSR: European part, Caucasus, Kazakhstan, Uzbekistan, Siberia, Far East.

***Drosophila (Sophophora) helvetica* BURLA, 1948**

Mat.: Ussuri Region: 1 ♀, 15 km SWW Nezhino, Ananevka River, 28.V.1989; 1 m, Ussurian Reserve, 13.VIII.1988.

Distr.: USSR: Caucasus, Far East.

***Drosophila (Sophophora) melanogaster* MEIGEN, 1830**

Mat.: 109 ♂♂, ♀♀. Ussuri Region: Vladivostok; 15 km SE Barabash-Levada; Brownitchi; Novitskoe; Nesterovka; Khorol (coll. MAKARKIN); Sinij Gaj; Dmitrievka (coll. KHOLIN); Novovladimirovka; Novokatchalinsk (coll. MOROKHOVETS). Amur Region: Khingansky Reserve, Kundur. Burjatia: Ulan-Ude (coll. Kolmakova).

Distr.: USSR: European part, Caucasus, Middle Asia, Siberia, Far East.

***Drosophila (Sophophora) suzukii* (MATSUMURA, 1931)**

Mat.: 4 ♂♂. Ussuri Region, Vladivostok, 25.VIII.1990 (coll. MAKARKIN).

Distr.: USSR: Far East.

***Scaptomyza* genus group, *Scaptomyza* genus subgroup**

***Lordiphosa* BASDEN, 1961**

***Lordiphosa collinella* (OKADA, 1968)**

Mat.: 48 ♂♂, ♀♀. Ussuri Region: Andreevka; Vladivostok (coll. MOROKHOVETS); Romanovka; Lazovsky Reserve; Ussurian Reserve. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Region: Khingansky Reserve, Kundur. Saghalien: Vic. Novoaleksandrovsk (coll. BASARUKIN); Yuzhno-Sakhalinsk (coll. VILOVITCH). Kurile Is.: Kunashir Island.

Distr.: USSR: Far East.

***Lordiphosa magnipectinata* (OKADA, 1956)**

Mat.: 62 ♂♂, ♀♀. Ussuri Region: Lazovsky Reserve; Vysokaya Mt., 1500 m. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River, Kotikovo (coll. STACKELBERG). Kurile Is.: Kunashir Island. Saghalien: Yuzhno-Sakhalinsk (coll. VILOVITCH).

Distr.: USSR (new record): Far East.

***Lordiphosa pseudotenuicauda* (TODA, 1983)**

Mat.: 1 ♂, Kurile Is., Kunashir Island, vic. Yuzhno-Kurilsk, 18.VIII.1989.

Distr.: USSR (new record): Far East.

***Lordiphosa stackelbergi* (DUDA, 1935)**

Mat.: 7 ♂♂, ♀♀. Ussuri Region: Romanovka; Ussurian Reserve. Khabarovsk Prov.: Komsomolsk-on-Amur (coll. MUTIN). Saghalien: Novoaleksandrovsk (coll. BASARUKIN).

Distr.: USSR: Far East.

***Lordiphosa tenuicauda* (OKADA, 1956)**

Mat.: 10 ♂♂, ♀♀. Kurile Is.: Kunashir Island.

Distr.: USSR (new record): Far East.

***Lordiphosa toyohiokadai* (SIDORENKO, 1990)**

Mat.: 69 ♂♂, ♀♀. Ussuri Region: 20 km NW Lazo, Lazovka River, mouth of Armu River. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River.

Distr.: USSR: Far East.

***Scaptomyza* HARDY, 1849, (*Hemiscaptomyza*) HACKMAN, 1959**

***Scaptomyza* (*Hemiscaptomyza*) *okadai* HACKMAN, 1955**

Mat.: 40 ♂♂, ♀♀. Saghalien: Matrosovka River (coll. BASARUKIN). Kurile Is.: Kunashir Island (from various parts of the island).

Distr.: USSR: Far East.

***Scaptomyza* (*Hemiscaptomyza*) *unipunctum* (ZETTERSTEDT, 1847)**

Distr.: USSR: European part, Kazakhstan, Tajikistan, West Siberia (HACKMAN 1959).

**Subgenus *Parascaptomyza* DUDA, 1924**

***Scaptomyza* (*Parascaptomyza*) *pallida* (ZETTERSTEDT, 1847)**

Mat.: 183 ♂♂, ♀♀. Ussuri Region: Andreevka; Barabash; 15 km SE Barabash-Levada; Lazovsky Reserve; Ussurian Reserve; Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Amur Reion: Khingansky Reserve, Kundur.

Distr.: USSR: European part, Caucasus, Middle Asia, Siberia, Far East.

**Subgenus *Scaptomyza* s. str.**

***Scaptomyza* (*Scaptomyza*) *baechlii* sp. nov.**

Holotype male, USSR, Northern Primorye, Vysokaya Mt., 1500 m, light trap, 30.-31.VIII.1990.

Paratypes: 20 ♂♂, 24 ♀♀, the same data as holotype, 28.VIII.-3.IX.1990.

Body length 2.6 - 2.8 mm. Eye red, with sparse fine pile. Antenna with 2nd joint grayish yellow, 3rd yellow. Arista with 3 (seldom 4) dorsal branches, but no ventral ones. Frons 1/2 (measured at level of anterior ocellus) as broad as head, anteriorly yellowish orange, a few frontal hairs. Ocellar triangle black. Periorbits grayish yellow, posteriorly brownish gray. Anterior reclinate orbital bristle 1/2 length of posterior reclinate; proclinate bristle as long as posterior reclinate. Face yellow; carina very low. Clypeus yellow. Cheek yellow, 1/6 as broad as maximum diameter of eye. Vibrissa strong, 2nd oral bristle 1/2 as long as vi. Palpus yellow, flattened, with 2 long subequal bristles apically.

Mesoscutum brownish black or black with gray "*Scaptomyza* pattern". Scutellum and thoracic pleura brownish black. Humerus brownish black; 2 humeral bristles, lower one slightly shorter. Acrostichal hairs in 4 rows. Anterior dorsocentral bristles 3/4 length of posterior ones; length distance of dorsocentrals 7/10 cross distance. Prescutellar bristles absent. Anterior scutellars 7/10 length of posterior ones. Sterno-index 0.

Legs yellow. Preapical bristles on all tibiae, apical on mid tibia. Fore metatarsus as long as 3 succeeding tarsal joints together, mid and hind metatarsi as long as the 4 succeeding together.

Wing hyaline, Veins yellow, crossveins clear. C1-bristles 2, subequal. Wing indices: C - 3.38 (3.03 - 3.77); 4C - 0.63 (0.55 - 0.72); 4V - 1.35 (1.21 - 1.51); 5x - 1.53 (1.16 - 1.92); Ac - 2.44 (2.06 - 2.93); C<sub>3</sub>-fringe 0.33 (0.22 - 0.44). Halteres grayish yellow.

Abdomen blackish gray. Sternites pale yellow.

Periphallic organs figs. 3, 4. Epandrium elongate below with 3 long bristles and 5-6 shorter ones in lower part. Surstylus with about 20 teeth arranged in concaved row on inner margin and several bristles below. Cercus separated from epandrium, with about 20 bristles.

Phallic organs figs. 5, 6. Aedeagus pointed apically in ventral view, rounded in lateral view. Anterior parameres 1/2 as long as aedeagus.

Female reproductive organs. Ovipositor (fig.7) elliptical, distally with 15 marginal teeth.

Relationships: *Scaptomyza baechlii* sp. nov. is closely related to *Scaptomyza grahami* HACKMAN, 1959, from Szechuan, China in having no ventral rays of arista but differs from the latter by chaetotaxy of surstylus and the shape of aedeagus.

Distr.: USSR: Far East.

Remark: This species is named in honor of Dr. Gerhard Bächli, Zürich.

#### ***Scaptomyza (Scaptomyza) consimilis* HACKMAN, 1955**

Mat.: 81 ♂♂, ♀♀. Ussuri Region: 15 km SWW Nezhino, Ananevka River, Ussurian Reserve; Vysokaya Mt., 1500 m. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River. Saghalien: Matrosovka River (coll. BASARUKIN). Kurile Is.: Kunashir Island (from various parts of the island).

Distr.: USSR: European part, Far East.

#### ***Scaptomyza (Scaptomyza) flava* (FALLEN, 1823)**

Mat.: 17 ♂♂, ♀♀. Ussuri Region: Ussurian Reserve; Vysokaya Mt., 1500 m. Khabarovsk Prov.: Komsomolsky Reserve, Gorin River.

Distr.: USSR: European part, Siberia, Far East.

#### ***Scaptomyza (Scaptomyza) graminum* (FALLEN, 1823)**

Mat.: 1 ♂, Ussuri Region, Vysokaya Mt., 1500 m, 28.-29. VIII.1990.

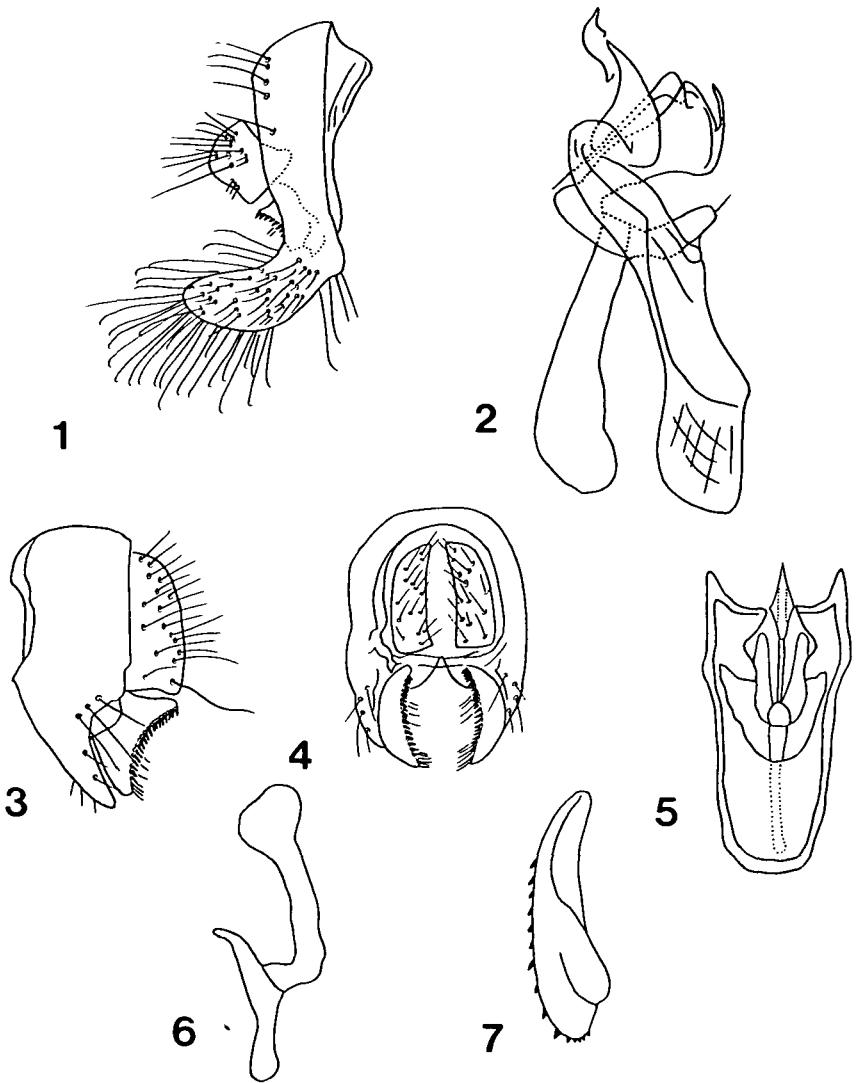
Distr.: USSR: European part, Turkmenia, Uzbekistan, Siberia, Far East.

#### ***Scaptomyza (Scaptomaza) subsplendens* (DUDA, 1935)**

Distr.: USSR: Far East.

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Figs.1-2: *Drosophila (Drosophila) bondarenkoi* sp. nov. - 1) periphallallic organs, lateral view; 2) phallic organs, ventral view.

Figs.3-7: *Scaptomyza (Scaptomaza) baechlii* sp. nov. - 3) periphallallic organs, lateral view; 4) same, caudal view; 5) phallic organs, ventral view; 6) aedeagus, lateral view; 7) ovipositor, lateral view.

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### Literaturbesprechung

WATSON, J.D., GILMAN, M., WITKOWSKI, J., ZOLLER, M. (1993): Rekombinierte DNA, 2. Auflage. - Spektrum Verlag, 596 S., zahlr. Abb.

Die Zelle hat als kleinste Funktionseinheit tierischen und pflanzlichen Lebens entscheidenden Einfluß auf die Lebensäußerungen der Organismen. Und dies nur, weil sich dort die DNA (Desoxyribonucleinsäure), das Molekül des Lebens befindet. In ihrer Struktur steckt die Erbinformation, die den Aufbau aller Proteine bestimmt. Einer der Autoren war an der Entdeckung der DNA als Informationsträger des Lebens maßgeblich beteiligt und plaudert mit seinen Coautoren aus dem Nähkästchen der Genetik. Ganz besonderen Wert legte man darauf, die Experimente zu beschreiben, die zu dem ungeheueren Wissenszuwachs führten und welche die Basis jeglicher wissenschaftlicher Erkenntnis bilden. Stets begleiten anschauliche farbige Fließdiagramme und Zeichnungen die Experimentbeschreibung; der Leser wird so ermutigt, selbst zu kombinieren und ein wenig "Forscher" zu spielen. Allerdings ist die Thematik alles andere als Spielerei. Die Schlußfolgerungen und Quervernetzungen der Einzelergebnisse offenbaren vielmehr die ungeheure Komplexität biochemischer und -physikalischer Vorgänge in den Organismen. Auch umstrittene genetische Experimente an Säugerzellen oder der derzeit heißdiskutierte Einsatz der Gentechnik in der Landwirtschaft kommen ausführlich zur Sprache. Fast selbstverständlich mutet es an, wenn die Autoren trotz aller Bedenken zu dem Schluß kommen, die Gentechnologie werde sich in der Zukunft zum Segen der Menschheit auswirken. Nachgewiesenermaßen falsch ist jedoch die Behauptung am Schluß des Kapitels "24. Gentechnik in der Landwirtschaft", die Anwendung der Gentechnik.....könne eine grüne Revolution hervorbringen, von der die gesamte Menschheit profitieren könnte." Genau das Gegenteil wird der Fall sein. Gentechnisch veränderte Organismen werden von ihren Herstellern patentiert, die Nutzungsrechte nur gegen teure Lizenzen erhältlich sein. Diese Entwicklung schließt diejenigen, welche eine "grüne Revolution" wahrlich dringend bräuchten, geradezu automatisch von deren Nutzung aus: Die Ärmsten der Armen. Warum, fragt man sich, erliegen auch die Autoren dieses Buches dem zerstörerischen Trieb, alle Grundlagenforschung anwendungsorientiert begründen zu wollen. Warum traut sich niemand mehr, Grundlagenforschung als das zu benennen, was sie primär ist: Erkenntnisgewinn - geboren aus der Neugier des Menschen.

M. CARL

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