



Far Eastern Entomologist

Дальневосточный энтомолог

Journal published by Far East Branch
of the Russian Entomological Society
and Laboratory of Entomology,
Institute of Biology and Soil Sciences,
Vladivostok

Number 116: 1-14

ISSN 1026-051X

July 2002

AN ANNOTATED CHECK-LIST OF CALLIPHORIDAE (DIPTERA) OF THE RUSSIAN FAR EAST

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The list of all known 49 calliphorid species of Russian Far East is given. *Polleniopsis mongolica* is firstly recorded for Russian fauna; *Protocalliphora peusi* for Asia (Novosibirskaya oblast), *Calliphora subalpina* for Evenkiya and *Cynomya cadaverina* for Yakutia. *Bellardia nartshukae* and *Calliphora nigribarbis* are new for Kuril Is; *B. nartshukae* and *Paradichosia okazakii* for Korean peninsula.

KEY WORDS: Calliphoridae, fauna, Russian Far East.

Ю. Г. Вервес. Анnotatedный список каллифорид (Diptera: Calliphoridae) Дальнего Востока России // Дальневосточный энтомолог. 2002. N. 116. С. 1-14.

Приведен список 49 видов каллифорид, известных с Дальнего Востока России. Для фауны России впервые указан *Polleniopsis mongolica*, для Азии (Новосибирская область) – *Protocalliphora peusi*, для Эвенкии – *Calliphora subalpina*, для Якутии – *Cynomya cadaverina*, для Курильских островов – *Bellardia nartshukae* и *Calliphora nigribarbis*, для Кореи – *B. nartshukae* и *Paradichosia okazakii*.

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INTRODUCTION

The fauna and ecological patterns of calliphorid flies of the Russian Far East are not completed. More or less full data are known for synanthropic and zoophilous species (Petrova, 1974a, 1987); for tundra zone (Chernov, 1959, 1965; Petrova, 1974c, 1975), for Amurskaya oblast (Litvinova, 1965), Khabarovskii krai (Nakonechniy & Zhurba, 1959; Zhurba et al., 1959; Zhurba, 1963), Primorskii krai (Vainstein, 1951; Gavrilova, 1962; Soboleva & Gavrilova, 1963; Petrova, 1966, 1968, 1973a, 1973b, 1974a; Petrova & Soboleva, 1968, 1973; Artamonov, 1995), Kamchatka, Kuril Islands and Sakhalin (Sychevskaya, 1974; Petrova, 1978). Some special works have been treated necrophagous (Ozerov, 1984, 1986b, 1989), bloodsucking or parasitized on birds (Grunin, 1966; Kerimov et al., 1985) or mammals (Grunin, 1947) species. Special faunistic study had been made for Sikhote-Alin Mts (Skuf'in & Khitzova, 1982), Ussuriysk (Artamonov, 1997), Zeya Reserve (Ozerov, 1986a), Kamchatka peninsula and North Kuril Islands (Kurahashi & Kuranishi, 2000). The data on different species had been published in reviews (Grunin, 1970b; Schumann, 1973, 1974; González-Mora & Peris, 1988; Peris & González-Mora, 1989; Rognes, 1988); faunistic notes of neighboring territories (Grunin, 1969, 1970c, 1975; Skuf'in & Khitsova, 1978), key (Grunin, 1970a), general reviews (Zumpt, 1956; Rognes, 1991, 1998) and catalogue (Schumann, 1986).

This study is based on material deposited in the following collections: Zoological Institute, Russian Academy of Sciences, St.Petersburg (ZIN); Institute of Animal Systematics and Ecology, Siberian Branch of Russian Academy of Sciences, Novosibirsk (IASE); Hungarian National Museum, Budapest (HNM); Institute of Zoology and Botany, Estonian Academy of Sciences, Tartu (IZBE); Laboratory of Zoology and Ecology, Biological Faculty of Kiev National University (LZEKU). New records are asterisked.

LIST OF THE SPECIES Subfamily Calliphorinae Tribe Calliphorini

Aldrichina grahami (Aldrich, 1930)

DISTRIBUTION. Russian Far East: Amurskaya oblast, south part of Khabarovskii krai, Primorskii krai (Petrova, 1974a, 1987; Skuf'in & Khitzova, 1982; Artamonov, 1997). East Palaearctic and Oriental Regions; introduced to Hawaii and Western USA.

Bellardia nartshukae Grunin, 1970

MATERIAL EXAMINED. South of Primorskii krai: Pidan ridge, Khualaza (= Mt. Litovka), 3.VII 1963, 1♂ (E. Narchuk) (ZIN). *Kuril Is.: Kunashir, Alekhino,

4.VIII 1964, 2♂ (K. Elberg); Shikotan, environs of Krabozavodsk, 13.VIII 1964, 1♀ (K. Elberg) (all in IZBE). [*North Korea: Prov. Pyeong-an-nam-do, Pyeong-yang, city park, 1.IX 1971, 1♀ (A. Horvatovich & J. Papp) (HNM). Japan: Kyushu: Kita-kyushu, environs of Kokura, forest-park, 28.III 1984, 1♂ (E. Sugonyaev) (ZIN)].

DISTRIBUTION. Russian Far East: south part of Khabarovskii krai, Primorskii krai (Grunin, 1970c; Schumann, 1974; Artamonov, 1995). North-East China, *North Korea, Japan.

***Bellardia obsoleta* (Meigen, 1824) (= *Ambodicria pruinosa* Enderlein, 1933)**

DISTRIBUTION. Russian Far East: Amurskaya oblast, South of Primorskii krai (Artamonov, 1997). Europe, South Siberia, Japan, North Africa.

***Bellardia stricta* Villeneuve, 1926**

DISTRIBUTION. Russian Far East: South of Primorskii krai (Artamonov, 1997). Europe, Transcaucasus, Siberia; introduced in USA.

***Calliphora (Abonesia) generum* Zetterstedt, 1838:**

MATERIAL EXAMINED. Magadanskaya oblast: Burhalinski kuru, 11.VIII 1972, 2♂ (K. Elberg) (IZBE). [Yakutia: 232 km from Khandyga, along the road, 19.VI 1965, 6♂, 3♀ (L. Popova); Ust'-Lenskiy reserve, Tit-Ary River, 31.VII 1989, 1♂ (A. Tzybulskiy) (all in IASE)].

DISTRIBUTION. Russian Far East: Chukotka, Magadanskaya oblast, Kamchatka, Amurskaya oblast, Kuril Is. (Paramushir I.), Primorskii krai (Chernov, 1959, 1965; Grunin, 1970a; Ozerov, 1986a; Schumann, 1986; Petrova, 1974a, 1987; Peris & González-Mora, 1989; Kurahashi & Kuranishi, 2000). Central and North Europe, mountains of Middle Asia, Siberia; Canada, USA (Alaska).

***Calliphora (Acrophaga) subalpina* Ringdahl, 1931**

MATERIAL EXAMINED. Magadanskaya oblast: Burhalinski kuru, 11.VIII 1972, 3♂ (K. Elberg) (IZBE). [Chitinskaya oblast: Shiviya, 27.VIII 1973, 4♂, 1♀ (A. Rasnitzyn); Zhidka, 9.VIII 1973, 1♂, 2♀ (A. Rasnitzyn). *Evenkiya: Taymura River basin, mouth of Neptene River, 24.VII 1982, 1♂ (I. Sukacheva) (all in LZEKU)].

DISTRIBUTION. Russian Far East: Magadanskaya oblast, Amurskaya oblast, Primorskii krai (Chernov, 1965; Grunin, 1970a; Ozerov, 1986a; Schumann, 1986; Petrova, 1987; Peris & González-Mora, 1989; Rognes, 1991). Central and North Europe, Transcaucasus, mountains of Middle Asia, Siberia, Japan.

***Calliphora (Calliphora) loewi* Enderlein, 1903**

MATERIAL EXAMINED. [Yakutia: 232 km along road from Khandyga, 24.VII, 11.VII 1985, 3♂, 1♀ (A. Barkalov) (IASE)].

DISTRIBUTION. Russian Far East: Amurskaya oblast, Primorskii krai (Grunin, 1970a; Skuf'in & Khitzova, 1982). Central and North Europe, Transcaucasus, Middle Asia, Siberia, Japan.

***Calliphora (Calliphora) nigribarbis* Vollenhoven, 1863 (= *C. lata* Coquillett, 1898)**

MATERIAL EXAMINED. Khabarovskii krai: Krivoy Klyuch near Nikolaevsk, 20.VIII 1929, 1♂ (Maslovskiy) (IASE); Primorskii krai: mouth of River Sitza, Suchan (= Patrizansk), 13.V 1928, 1 ♀ (Kurentzov) (ZIN). *Kuril Is.: Kunashir, Sernovodsk, 9.VII 1968, 2♂, 1♀ (Zolotarenko) (IASE).

DISTRIBUTION. Russian Far East: Amurskaya oblast, Primorskii krai, Sakhalin, *Kuril Is. (Sychevskaya, 1974; Skuf'in & Khitzova, 1982; Schumann, 1986; Petrova, 1987; Peris & González-Mora, 1989; Artamonov, 1997). East Siberia, China (including Taiwan), Korea, Japan.

***Calliphora (Calliphora) terraenovae* Macquart, 1851**

MATERIAL EXAMINED. Kamchatka: Dal'niy, 18.VII 1967, 5♂, 1♀ (N. Violovich) (IASE). Sakhalin: Smirnykhovsk district, Bogataya River, 17.VIII 1978, 3 ♂ (S. Kuznetzov) (ZIN).

DISTRIBUTION. Russian Far East: Chukotka, Magadanskaya oblast, Kamchatka, Amurskaya oblast, Khabarovskii krai, Primorskii krai, Sakhalin, Kuril Is. (Kunashir, Paramushir) (Chernov, 1965; Grunin, 1970a; Sychevskaya, 1974; Schumann, 1986; Petrova, 1987; Peris & González-Mora, 1989; Kurahashi & Kuranishi, 2000). North America.

***Calliphora (Calliphora) uralensis* Villeneuve, 1922**

DISTRIBUTION. Throughout Russian Far East (Petrova, 1974a, 1987; Schumann, 1986). Throughout Palaearctic region; Greenland.

***Calliphora (Calliphora) vicina* Robineau-Desvoidy, 1830**

DISTRIBUTION. Throughout Russian Far East (Petrova, 1974a, 1987; Schumann, 1986). Holarctic, Oriental, Australasian/Oceanian, Afrotropical (South Africa), Madagascar and Neotropic regions.

***Calliphora (Calliphora) vomitoria* (Linnaeus, 1758)**

DISTRIBUTION. Throughout Russian Far East (Petrova, 1974a, 1987; Schumann, 1986). Holarctic, Oriental and Australasian/Oceanian (Hawaii) regions.

***Cynomya cadaverina* Robineau-Desvoidy, 1830**

MATERIAL EXAMINED. Kamchatka: NW of Nachiki, 14.VIII 1967, 1♂ (N. Violovich) [*Yakutia: environs of Yakutsk, 14.VIII 1985, 1♂ (A. Barkalov)] (all in IASE).

DISTRIBUTION. Russian Far East: Chukotka, Wrangel I. (Chernov, 1965; Grunin, 1970a; Schumann, 1986; Petrova, 1987). Czech Republic; North America.

***Cynomya mortuorum* (Linnaeus, 1761)**

DISTRIBUTION. Throughout Russian Far East (Chernov, 1959, 1965; Petrova, 1974a, 1987; Schumann, 1986). Palaearctic region.

***Melinda gentilis* Robineau-Desvoidy, 1830**

DISTRIBUTION. Russian Far East (Grunin, 1970a; Schumann, 1973). Europe, Transcaucasus, Siberia (Altai), Japan.

***Melinda io* (Kurahashi, 1965)**

MATERIAL EXAMINED. South of Primorskii krai: environs of Vladivostok, Lyanchykhe, 17.VII 1963, 2♂, 1♀ (E. Narchuk); Pidan ridge, Khualasa (=Mt. Litovka), 3.VII 1963, 2♀ (E. Narchuk) (all in ZIN).

DISTRIBUTION. Russian Far East: South of Primorskii krai (Grunin, 1970b; Petrova & Soboleva, 1973; Schumann, 1983; Artamonov, 1997). North-East China, Japan.

***Paradichosia itoi* (Kano, 1962)**

DISTRIBUTION. Russian Far East: Primorskii krai (Grunin, 1970b; Schumann, 1986; Petrova, 1987). Japan (Shikoku).

***Paradichosia okazakii* (Kano, 1962)**

MATERIAL EXAMINED. [*North Korea: Prov. Hamgeongnam-do, Plateau Chann-Pay, Sam-zi-yan, 1600-1700 m, 5, 25-27.VIII 1971, 5♂ (A. Horvatovich & J. Papp) (HNM)].

DISTRIBUTION. Russian Far East: Amurskaya oblast, Primorskii krai (Grunin, 1970b; Ozerov, 1986a; Schumann, 1986; Petrova, 1987; Artamonov, 1997). *North Korea, Japan (Honshu, Kyushu, Ryukyu)

***Paradichosia pusilla* (Villeneuve, 1927)**

MATERIAL EXAMINED. South of Primorskii krai, environs of Ekaterinovka, Boietz Kuznetsov station, 2.X 1968, in room, 1♀ (K. Gorodkov); Kedrovaya Pad' reserve, 3.5 km WNW of central office, in oak-wood at ground at dry leaves, 15-17.X 1968, 4♂, 3♀ (K. Gorodkov) (all in ZIN).

DISTRIBUTION. Russian Far East: South of Primorskii krai (Grunin, 1970b; Schumann, 1986; Petrova, 1987). Japan (Hokkaido, Honshu); China (Taiwan).

***Polleniopsis mongolica* Seguy, 1928**

MATERIAL EXAMINED. South of Primorskii krai: Mountain-taiga station SE of Ussuriysk, at light, 1.VIII 1963, 1♂ (E. Narchuk). Kuril Is.: Kunashir, Mendeleev, 25.VIII 1968, 1♂, 1♀ (E. Narchuk) (all in ZIN).

DISTRIBUTION. *Russian Far East: Primorskii krai, Kuril Is. (Kunashir). Mongolia, China, Japan, Oriental region.

***Triceratopyga calliphoroides* Rohdendorf, 1931**

MATERIAL EXAMINED. Amurskaya oblast: Arkhara, 10.IX 1972, 2♂ (V. Zherikhin); Primorskii krai: Imansk district, environs of Malinovo village, 4♂, 2♀ (V. Zherikhin); Roshchino village, 20.VII 1976, 1♂, 2♀ (V. Zherikhin); Suvorovo, 24.VI 1972, 6♂ (V. Zherikhin) (all in LZEKU). [Buryatiya: mouth of Michikha River, 4.VII 1984, 3♂, 1♀ (D. Zakharov) (IASE). Krasnoyarskii krai: Tutanchena village at Nizhnyaa Tunguska River, 9.VIII 1982, 12♂, 4♀ (K. Yas'kov) (LZEKU)].

DISTRIBUTION. Russian Far East: Amurskaya oblast, Khabarovskii krai, Primorskii krai, Sakhalin, Kuril Is. (Rohdendorf, 1931; Sychevskaya, 1974; Skuf' in & Khitzova, 1982; Petrova, 1974a, 1987; Ozerov, 1986a; Schumann, 1986; Peris & González-Mora, 1989; Artamonov, 1997). East Siberia, Mongolia, North-East and South China, Korea, Japan (including Ryukyu Is.).

Tribe Bengalini

***Booponus inexpectatus* (Grunin, 1947)**

MATERIAL EXAMINED. Primorskii krai: environs of Vladivostok, 12.VI 1973, 2♂ (P. Lehr) (ZIN).

DISTRIBUTION. Russian Far East: South of Primorskii krai (Grunin, 1947; Petrova, 1974a, 1987; Schumann, 1986). East Siberia, Mongolia.

Tribe Luciliini

***Lucilia (Lucilia) ampullacea* Villeneuve, 1922**

MATERIAL EXAMINED. Khabarovskii krai (EAO): environs of Obluchye village, 27.VIII 1976, 1♂ (V. Zherikhin). Primorskii krai: Kedrovaya Pad' reserve, 30.VIII 1980, 6♂, 1♀ (V. Zlobin) (ZIN); Bol'shaya Svetlovodnaya River, 40 km upper of mouth, 14.VIII 1976, 1♂ (V. Zherikhin); Suvorovo, 25.VI 1972, 2♂ (V. Zherikhin) (all in LZEKU); environs of Vladivostok, botanic garden, 7.IX 1985, 1♀ (V. Dubatolov) (IASE).

DISTRIBUTION. Russian Far East: Amurskaya oblast, Khabarovskii krai, Primorskii krai, Sakhalin, Kuril Is. (Petrova, 1974a, 1987; Skuf'in & Khitzova, 1982; Ozerov, 1986a; Artamonov, 1997). Throughout Palaearctic region, India.

***Lucilia (Lucilia) bazini* Seguy, 1934**

DISTRIBUTION. Russian Far East: South of Primorskii krai (Grunin, 1970c; Petrova, 1987). East Siberia, North-East China, Korea, Japan, Laos, Vietnam.

***Lucilia (Lucilia) caesar* (Linnaeus, 1758)**

DISTRIBUTION. Russian Far East: Kamchatka, Kuril Is. (Paramushir), Amurskaya oblast, Khabarovskii krai, Primorskii krai (Petrova, 1974a, 1987; Skuf'in & Khitzova, 1982; Ozerov, 1986a; Artamonov, 1997; Kurahashi & Kuranishi, 2000). Throughout Palaearctic region.

***Lucilia (Lucilia) illustris* (Meigen, 1826)**

MATERIAL EXAMINED. Primorskii krai: Roshchino, 17-20.VII 1976, 16♂, 1♀ (V. Zherikhin); 40 km upper of mouth of Bol'shaya Svetlovodnaya River, 14.VIII 1976, 1♂, 1♀ (V. Zherikhin); Suvorovo, 25.VI 1972, 3♂ (V. Zherikhin); Vladivostok, 12.VI 1972, 2♂, 1♀ (V. Zherikhin) (all in LZEKU).

DISTRIBUTION. Russian Far East: Chukotka, Magadanskaya oblast, Amurskaya oblast, Khabarovskii krai, Primorskii krai, Sakhalin, Kuril Is. (Chernov, 1965; Petrova, 1974a, 1987; Skuf'in & Khitzova, 1982; Ozerov, 1986 a; Artamonov, 1997). Throughout Palaearctic region; Oriental and Nearctic (California) regions.

***Lucilia (Phaenicia) hirsutula* Grunin, 1969**

MATERIAL EXAMINED. Primorskii krai: Roshchino, 19, 21.VII 1976, 2♂ (V. Zherikhin) (LZEKU).

DISTRIBUTION. Russian Far East: Primorskii krai (Grunin, 1969, 1975; Schumann, 1986; Petrova, 1987). South-East Europe, Kazakhstan, Siberia.

***Lucilia (Phaenicia) regalis* (Meigen, 1826)**

DISTRIBUTION. Russian Far East: Amurskaya oblast (Ozerov, 1986a). Europe, South Siberia, North China.

***Lucilia (Phaenicia) sericata* (Meigen, 1826)**

DISTRIBUTION. Throughout Russian Far East (Petrova, 1974a, 1987; Schumann, 1986). Cosmopolitan.

***Lucilia (Bufolucilia) chini* Fan, 1965**

MATERIAL EXAMINED. South of Primorskii krai: Pidan ridge, Khualasa (=Mt. Litovka), 3.VII 1963, 1♂ (E. Narchuk) (ZIN).

DISTRIBUTION. Russian Far East: Primorskii krai (Petrova, 1987). North-East China, Japan.

***Lucilia (Bufolucilia) silvarum* (Meigen, 1826)**

MATERIAL EXAMINED. Primorskii krai: Roshchino, 17-20.VII 1976 2♂, 3♀ (V. Zherikhin), (LZEKU).

DISTRIBUTION. Russian Far East: Primorskii krai (Grunin, 1970a; Petrova, 1974a, 1987; Skuf' in & Khitzova, 1982). Throughout Palaearctic region.

***Lucilia (Francilia) fuscipalpis* (Zetterstedt, 1845)**

DISTRIBUTION. Russian Far East: Chukotka, Magadanskaya oblast (Chernov, 1959, 1965; Petrova, 1974a, 1987). Circumpolar.

Tribe Polleniini

***Pollenia pectinata* Grunin, 1966**

DISTRIBUTION. Russian Far East: Magadanskaya oblast, Kamchatka, Amurskaya oblast, Khabarovskii krai, Primorskii krai (Grunin, 1966, 1970; Petrova, 1974a, 1987; Skuf' in & Khitzova, 1982; Ozerov, 1986a; Schumann, 1986; Rognes, 1988; Artamonov, 1997). Central and East Europe, Siberia, Mongolia, North China.

***Pollenia rudis* (Fabricius, 1794)**

DISTRIBUTION. Throughout Russian Far East (Petrova, 1974a, 1987; Ozerov, 1986a; Schumann, 1986). Holarctic, Oriental and Australasian/Oceanian (Hawaii, New Zealand) regions.

Subfamily Chrysomyinae
Tribe Chrysomyini

***Chrysomya albiceps* (Wiedemann, 1819)**

DISTRIBUTION. Russian Far East: Khabarovskii krai, Primorskii krai (Petrova, 1974a, 1987; Artamonov, 1997). Palaearctic, Oriental, Afrotropical, Madagascar and Neotropic regions.

***Chrysomya megacephala* (Fabricius, 1794)**

DISTRIBUTION. Russian Far East: South of Primorskii krai (Petrova, 1974a, 1987; Artamonov, 1997). Canary Is., Egypt, Afghanistan, Iran, East Siberia, China, Korea, Japan; Oriental, Australasian/Oceanian, Afrotropical and Madagascar regions; introduced in Neotropic region.

Tribe Phormiini

***Boreellus atriceps* (Zetterstedt, 1845)**

DISTRIBUTION. Russian Far East: Wrangel I. and tundra zone (Chernov, 1959, 1965; Grunin, 1970a; Petrova, 1974a, 1987; Schumann, 1986). Circumpolar.

***Phormia regina* (Meigen, 1826)**

MATERIAL EXAMINED. Primorskii krai: Bol'shaya Svetlovodnaya River, 40 km upper of mouth, 7-8.VIII 1976, 6♂, 2♀ (V. Zherikhin). [Chitinskaya oblast: Zhidka, 7.VIII 1973, 2♂ (A. Rasnitzyn)] (all in LZEKU).

DISTRIBUTION. Russian Far East: Magadanskaya oblast, Amurskaya oblast, EAO, Khabarovskii krai, Primorskii krai, Sakhalin, Kuril Is. (Petrova, 1974a, 1987; Ozerov, 1986a; Artamonov, 1997). Holarctic and Australasian/Oceanian (Hawaii) regions.

***Protocalliphora amblyogma* Peus, 1960**

MATERIAL EXAMINED. Primorskii krai: Bol'shaya Svetlovodnaya River, 40 km upper of mouth, 8.VIII 1976, 1♂ (V. Zherikhin) (LZEKU).

DISTRIBUTION. Russian Far East: Amurskaya oblast, Primorskii krai (Grunin, 1966; Skuf'in & Khitzova, 1982; Ozerov, 1986a; Petrova, 1987). East Siberia.

***Protocalliphora azurea* (Fallen, 1917)**

MATERIAL EXAMINED. [Chitinskaya oblast: Zhidka, 9.VIII 1973, 1♂ (A. Rasnitzyn) (LZEKU)].

DISTRIBUTION. Russian Far East: Amurskaya oblast, Khabarovskii krai, Primorskii krai, Kuril Is. (Petrova, 1974a, 1987; Skuf'in & Khitzova, 1982; Kerimov, Lavrenchenko & Ozerov, 1985; Ozerov, 1986a; Artamonov, 1997). Throughout Palaearctic region.

***Protocalliphora chrysorrhoea* (Meigen, 1826)**

MATERIAL EXAMINED. [Novosibirsk region: 7 km SW of El'tzovskii kordon, 22.VII 1966, at grass, 1♀ (E. Kharitonova) (IASE)].

DISTRIBUTION. Russian Far East (Schumann, 1986). Europe, Transcaucasus, Middle Asia, Siberia, North China.

***Protocalliphora maruyamensis* Kano & Shinonaga, 1966**

DISTRIBUTION. Russian Far East: Amurskaya oblast, Khabarovskii krai, Sakhalin, Kuril Is. (Kunashir) (Ozerov, 1986a; Grunin, 1970; Kerimov, Lavrenchenko & Ozerov, 1985; Schumann, 1986; Artamonov, 1997). North-East China, Japan.

***Protocalliphora peusi* Gregor et Povolny, 1959**

MATERIAL EXAMINED. *Novosibirskaya oblast: coast of Malyi Chan Lake, at flowers of *Taraxacum officinale*, 17.V 1982, 1♀ (A. Barkalov) (IASE). This species is firstly recorded for Asia in the present publication.

DISTRIBUTION. Spain, Austria, Germany, Czech Republic, Poland, Greece, European part of Russia (Leningradskaya oblast, Lipetskaya oblast, Orlovskaya oblast), *Novosibirskaya oblast (Zumpt, 1956; Grunin, 1970a; Skuf'in & Khitsova, 1978; Schumann, 1986; González-Mora & Peris, 1988).

***Protocalliphora proxima* Grunin, 1966**

DISTRIBUTION. Russian Far East: Primorskii krai (Grunin, 1966). Central and East Europe, West Siberia, Kyrgyzstan.

***Protocalliphora sabroskyi* Grunin, 1970**

DISTRIBUTION. Russian Far East: Amurskaya oblast (Grunin, 1970c; Ozerov, 1986a). West Siberia.

***Protophormia terraenovae* (Robineau-Desvoidy, 1830)**

DISTRIBUTION. Throughout Russian Far East (Chernov, 1959, 1965; Petrova, 1974a, 1987; Ozerov, 1986a; Schumann, 1986;). Holarctic region.

***Trypocalliphora braueri* (Hendel, 1901) (= *Trypocalliphora lindneri* Peus, 1960)**

MATERIAL EXAMINED. Primorskii krai: Lazovskii reserve, Lazo, from nest of *Sturnus vulgaris*, 13.VII 1983, 3♂, 1♀ (Roman'kova); Lazovskii reserve, Kievka village, from nest of *Sturnus vulgaris*, 21.06.1987, 1♂ (Roman'kova) (LZEKU).

DISTRIBUTION. Russian Far East: Amurskaya oblast, Khabarovskii krai, South of Primorskii krai (Grunin, 1970a; Kerimov, Lavrenchenko & Ozerov, 1985). Holarctic region.

Subfamily Rhiniinae

***Stomorhina discolor* (Fabricius, 1794)**

DISTRIBUTION. Russian Far East: South of Primorskii krai (Petrova, 1974b). East China; Oriental and Australasian/Oceanian regions.

***Stomorhina obsoleta* (Wiedemann, 1830)**

DISTRIBUTION. Russian Far East: Amurskaya oblast, South of Primorskii krai (Ozerov, 1986a; Artamonov, 1997). North-East and South (Fujian) China, Japan (including Bonin Is.).

ACKNOWLEDGMENTS

I would like to thank the following colleagues and friends for their kindness in searching for material, for placing material in my disposal and for other invaluable assistance: A. Barkalov (IASE), K. Gorodkov (ZIN), K. Elberg (IZBE), N. Kolomyietz (IASE), E. Narchuk, V. Zlobin (ZIN), L. Papp (HNM), A. Ponomarenko, A. Rasnitzyn I. Sukacheva, K. Yas'kov, V. Zherikhin (Paleontological Institute, Russian Academy of Sciences, Moscow), V. Sidorenko (Institute of Biology and Soil Sciences, Far Eastern Branch of Russian Academy of Sciences, Vladivostok).

REFERENCES

- Artamonov, S. D. 1995. [Calliphorids (Diptera, Calliphoridae) of the Ussuriysk city]. – In: Zhivotnyi i rastitel'nyi mir Dal'nego Vostoka. Ussuriysk, 2: 3-10. (In Russian).
Artamonov, S. D. 1997. [Calliphorids (Calliphoridae, Diptera) of the Ussuriysk resere]. – In: Zhivotnyi i rastitel'nyi mir Dal'nego Vostoka. Ussuriysk, 3: 1-5. (In Russian).
Chernov, Yu. I. 1959. [The synanthropic flies (Diptera) of Yugorskii peninsula and Waigach island]. - Entomologicheskoe Obozrenie 38 (3): 579-582. (In Russian).
Chernov, Yu. I. 1965. [The complex of the synanthropic flies (Diptera) in tundra zone of the USSR]. - Entomologicheskoe Obozrenie 44 (1): 74-83. (In Russian).

- Gavrilova, B. K. 1962. [Materials on the fauna and ecology of flies of fur farms of the south of Primorskiy kray]. – In: Problemy zoologicheskikh issledovaniy v Sibiri, Gorno-Altaysk: 82. (In Russian).
- González-Mora, M. D. & Peris, S. V. 1988. Los Calliphoridae de España, I: Rhiniinae e Chrysomyinae (Diptera). - Eos 64 (1): 91-139.
- Grunin, K. Ya. 1947. [The subdermal parasite of kabarga *Pavlovskomyia inexpectata* gen., sp. n. (Diptera, Calliphoridae)]. – Parazitologicheskiy sbornik Zoologicheskogo Instituta AN SSSR. 9: 183-190. (In Russian).
- Grunin, K. Ya. 1966. [New and little known Calliphoridae (Diptera) mainly bloodsucking or subcutaneous parasites of birds]. – Entomologicheskoe Obozrenie 45: 897-903. (In Russian).
- Grunin, K. Ya. 1969. Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei. 172. Calliphoridae, Gasterophilidae, Oestridae (Diptera). - Faunistische Abhandlungen Staatliches Museum für Tierkunde Dresden 3 (2): 5-11.
- Grunin, K. Ya. 1970a. [108. Calliphoridae]. - In: Bey-Bienko, G. Ya. (Ed.) Opredelitel' nasekomykh evropeiskoi chasti SSSR. Tom 5 (2). Leningrad: 607-624. (In Russian).
- Grunin, K. Ya. 1970b. [The species of the genus *Paradichosia* S.-W. (Diptera, Calliphoridae), new for the fauna of USSR]. - Entomologicheskoe Obozrenie 49 (1): 244-246. (In Russian).
- Grunin, K. Ya. 1970c. [New species of Calliphoridae (Diptera) for the fauna of the USSR]. - Entomologicheskoe Obozrenie 49 (2): 471-483. (in Russian).
- Grunin, K. Ya. 1975. [Gasterophilidae, Calliphoridae, Oestridae, Hypodermatidae (Diptera) of the Soviet-Mongolian expedition, 1969-1971]. – Nasekomye Mongolii. Tom 3. Leningrad: 620-627. (In Russian).
- Kerimov, A. B., Lavrenchenko, L. A. & Ozerov, A. L. 1985 [Calliphorids (Diprera, Calliphoridae) parasites of the nestlings of *Parus major* L. and *Muscicapa narcissina* Temn]. – Bulletin' MOIP, Biol. 90 (1): 37-39. (In Russian).
- Kurahashi, H. & Kuranishi, R.B. 2000. Calliphorid and sarcophagid flies (Insecta: Diptera) collected from the Kamchatka Peninsula and North Kuril Islands in 1996-1997. - Natural History Research, Special Issue, Tokyo, 7: 179-180.
- Litvinova, N. F. 1965. [The synanthropic flies of the Blagoveshchensk city]. – Meditsinskaya parasitologiya i parazitologicheskie bolezni. 34 (5): 529. (In Russian).
- Nakonechniy, V. I. & Zhurba, S. S. 1959. [On the fauna of synanthropic flies of the Far East]. – In: Tezisy nauchnoi konferentsii Instituta epidemiologii i gygienny, Khabarovsk: 50-52. (In Russian).
- Ozerov, A. L. 1984. [The role of calliphorids (Diptera: Calliphoridae) in ecosystems of the Mid-Amur region]. – In: Dvukrylye nasekomye fauny SSSR i ikh rol' v ekosistemakh, Leningrad: 88-90. (In Russian).
- Ozerov, A. L. 1986a. [Calliphorids and carniids (Diptera: Calliphoridae, Carnidae) of Zeya State reservation]. - Trudy Zoologicheskogo Instituta, Leningrad 146: 79-86. (In Russian).
- Ozerov, A. L. 1986b. [On fauna of necrobiont two-winged insects of forest biocoenoses of the southern Far East of USSR]. – Biologicheskie nauki, Moscow: VINITI N 67388 Dep: 1-9. (In Russian).
- Ozerov, A. L. 1989. [To the knowledge of necrobiont two-winged insects of the Far East]. – In: Nasekomye v ekosistemakh Sibiri i Dal'nego Vostoka]. Moscow University Press: 114-142. (In Russian).

- Peris, S. V. & González-Mora, M. D. 1989. About *Calliphora* and its allies (Diptera). 11 - Eos 65 (2): 165-201.
- Petrova, B. K. 1966. [Data on the ecology and behavior of pasture flies (Diptera) of the south of the Soviet Far East]. - Entomologicheskoe Obozrenie 45 (1): 76-82. (In Russian).
- Petrova, B. K. 1968. [Faunistic-ecological review of synanthropic Diptera from the south of the Primorye Territory]. - Entomologicheskoe Obozrenie 47 (1): 95-105. (In Russian).
- Petrova, B. K. 1973a. [An ecological character of the synanthropic and zoophilous flies of the southern Primorye]. - In: Entomologicheskie issledovaniya na Dal'nem Vostoke. Novosibirsk 2: 78-84. (In Russian).
- Petrova, B. K. 1973b. [To the knowledge of the synanthropic and zoophilous flies of the fur farms of Primorye]. - In: Entomologicheskie issledovaniya na Dal'nem Vostoke. Novosibirsk 2: 84-94. (In Russian).
- Petrova, B. K. 1974a. [Key of the synanthropic flies in Primorye Territory]. Novosibirsk: 101 p. (In Russian).
- Petrova, B. K. 1974b. [Dipterans of state fur and deerbreeding farms of Primorye Territory]. - In: Fauna i ekologiya dvukrylykh Sovetskogo Dal'nego Vostoka. Vladivostok 19 (122): 31-50. (In Russian).
- Petrova, B. K. 1974c. [The ecological adaptations of the synanthropic flies to the conditions of life in north of the Far East]. - In: Zoologicheskie issledovaniya Sibiri i Dal'nego Vostoka. Vladivostok: 195-199. (In Russian).
- Petrova, B. K. 1975. [The synanthropic flies (Diptera) of the Far Eastern Zapolyar'e]. - In: Tezisy 7-go s'ezda Vsesoyuznogo Entomologicheskogo obschestva, Leningrad 1: 247-248. (In Russian).
- Petrova, B. K. 1978. [Ecological and geographical characteristics of the synanthropic flies (Diptera) fauna of the Kunashir Island, USSR]. - Entomologicheskoe Obozrenie 57: 86-91. (In Russian).
- Petrova, B. K. 1987. Blue and green (flesh) flies (Fam. Calliphoridae). - In: Soboleva, R.G. (Ed.). Nasekomye i kleschi Dal'nego Vostoka imeyuschie mediko-veterinarnoe znachenie. Leningrad: 96-102. (In Russian).
- Petrova, B. K. & Soboleva, R. G. 1968. [The fundamental places of the development of the synanthropic flies in the live-stock farms of the Primorye Territory]. - In: Fauna i ekologiya nasekomykh Sovetskogo Dal'nego Vostoka. Vladivostok: 147-160. (In Russian).
- Petrova, B. K. & Soboleva, R. G. 1973. [The peculiarities of habitation of the synanthropic and zoophilous flies in Kedrovaya Pad' reserve]. - In: Entomologicheskie issledovaniya na Dal'nem Vostoke. Novosiborsk 2: 94-105. (In Russian).
- Rognes, K. 1988. The taxonomy and phylogenetic relationships of the *Pollenia semicinerea* species-group (Diptera: Calliphoridae). - Systematic Entomology 13: 315-345.
- Rognes, K. 1991. Blowflies (Diptera, Calliphoridae) of Fennoscandia and Denmark. - Fauna entomologica scandinavica 24: 1-272.
- Rognes, K. 1998. Calliphoridae. - In: Papp, L. & Darvas, B. (Eds). Contributions to the Manual of Palaearctic Diptera (with special reference to flies of economic importance). 3. Higher Brachycera. Budapest: Science Herald: 617-648.
- Rohdendorf, B. B. 1931. Calliphorinen-Studien IV (Dipt.). Eine neue Calliphorinengattung aus Osttsibiri. - Zoologischer Anzeiger. 95: 175-177.

- Schumann, H. 1973. Revision der palaearktischen *Melinda* - Arten (Diptera, Calliphoridae). - Deutche entomologische Zeitschrift (N. F.) 20: 293-314.
- Schumann, H. 1974. Revision der palaearktischen *Bellardia*-Arten (Diptera, Calliphoridae). - Deutche entomologische Zeitschrift (N. F.) 21: 231-299.
- Schumann, H. 1986. Family Calliphoridae. - In: Sooś, A. & Papp, L. (Eds). Catalogue of Palaearctic Diptera. 12. Budapest: Akadémiai Kiadó & Amsterdam: Elsevier: 11-58.
- Skuf'ин, K. V. & Khitsova, L. N. 1978. [On the Calliphoridae (Diptera) fauna in the European section of the USSR]. - Vestnik zoologii (4): 87-89. (In Russian).
- Skuf'ин, K. V. & Khitzova, L. N. 1982. [On the calliphorid fauna (Diptera, Calliphoridae) of the Sikhote-Alin' and Altay reservations]. - In: Problemy fauny i ekologii nasekomykh, Voroneyzh University: VINITI 6455-82 Dep: 45-48. (In Russian).
- Soboleva, R. G. & Gavrilova, B. K. 1963. [The studying of the synanthropic flies in one of the fur farms of the southern Primorye and the experience of control on them]. - Vladivostok 18: 107-112. (In Russian).
- Sychevskaya V. I. 1974. [Synanthropic flies of Sakhalin, Kamchatka and the Kuril Islands]. - In: Fauna i ekologiya dvukrylykh Dal'nego Vostoka. Vladivostok 19 (122): 82-85. (In Russian).
- Vainstein, B. A. 1951. [The synanthropic flies of fishing in Primorskiy Kray]. - In: Meditsinskaya parasitologiya i parazitologicheskie bolezni 20 (6): 541-543. (In Russian).
- Zhurba, S. S. 1963. [To the knowledge of the synanthropic flies of the Far East]. - In: Voprosy geografii Dal'nego Vostoka. Khabarovsk 5: 118-131. (In Russian).
- Zhurba, S. S., Nakonechniy, V. I. & Mishchenko, V. G., 1959. [On the migration of the synanthropic flies in living regions of the city]. - In: Tezisy nauchnoi konferentsii Instituta epidemiologii i gигиени. Khabarovsk: 25-54. (In Russian).
- Zumpt, F., 1956. 64i. Calliphorinae. - In: Lindner, E. (Ed.): Die Fliegen der palaearktischen Region. 11. Stuttgart: Erwin Nagele. Lfg. 190, 191, 193: 1-140.