

The Flies (Diptera) of Park “Theophania”, Kyiv. 2. Sarcophagidae

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Verves Yu. G. The Flies (Diptera) of Park “Theophania”, Kyiv. 2. Sarcophagidae. Summary. 1602 specimens from 41 species of sarcophagids were collected from Park Memorial of Landscape Art “Theophania” in 1998–2012. As a result, 38 of them are firstly recorded for Park. In Ukraine, 177 species of Sarcophagidae were recorded so far; a list of 95 species collected in Kyiv City in its current boundaries is present too.

Key words: Sarcophagidae, Park “Theophania”, Kyiv City, new records.

Вервес Ю. Г. Мухи (Diptera) парка «Феофания», Київ. 2. Sarcophagidae. Резюме. 1602 особи из 41 вида саркофагид были отловлены в Парке-памятнике садово-паркового искусства «Феофания» в 1998–2012 гг. Из них 38 видов впервые обнаружены на территории парка. Для Украины известно 177 видов саркофагид; представлен список 95 видов, собранных в современных пределах г. Киева.

Ключевые слова: Sarcophagidae, Парк «Феофания», Киев, новые находки.

Вервес Ю. Г. Мухи (Diptera) парку «Феофанія», Київ. 2. Sarcophagidae. Резюме. 1602 особин із 41 виду саркофагід були зібрані в Парку-пам'ятці садово-паркового мистецтва «Феофанія» в 1998–2012 рр. З них 38 видів вперше знайдені на території парку. Для України відомо 177 видів саркофагід; подано список 95 видів, зібраних в сучасних межах м. Києва.

Ключові слова: Sarcophagidae, Парк «Феофанія», Київ, нові знахідки

Introduction

In Ukraine, 177 species of the grey fleshflies (Sarcophagidae) were recorded so far; 95 species were known from Kyiv City in its current boundaries, and only 3 species were found to occur in the Landscape Art Memorial Park “Theophania”.

This article continues publications of results of my dipterological researches in “Theophania” park (Verves, 2012a, b). The faunistic data of the results of field collections of author and observations in 1998–2006 and 2012 in the “Theophania” park are presented. The general distributional data of the species are given after Khrokalo & Verves (2009), Pape (1996), Verves (1986, 1998b, 2000, 2001 b, 2003, 2004, 2010, 2013 a, b), Verves & Khrokalo (2006 a), Verves & Szpila (2008, 2011). Some additional references on the distribution of certain species are given in the text below. Generic position of Sarcophagidae species follows Lopes (1982), Rohdendorf (1965), Verves (1986,

1989 a, b, 1990 a, b, 1994, 1997, 1998a, 2001 a), Verves & Khrokalo (2006 b), Xue & Verves (2009), Xue, Verves & Du (2011). The first records for the “Theophania” park are asterisked (*). Ukrainian administrative regions (“oblasts”) ordered alphabetically.

A brief description of the park was hovered in my previous article (Verves, 2012a).

Material and methods

The flies were collected mainly by means of a hand net and killed then by ethyl acetate in glass tubes. In total, 1602 specimens (1545 ♂, 57 ♀) have been collected in 1999–2006 and 2012 by author. Species were identified according to Rohdendorf (1970), Verves (1982, 1985, 1993), Verves & Richet (2009), Zerova et al. (2006). Collected specimens are deposited in the Center for Megalopolis Ecomonitoring and Biodiversity Research, Kyiv.

Results

In this study, 41 species of Sarcophagidae were collected in the park “Theophania” and its boundaries in 1998–2012. Of them, 38 species are firstly recorded for Park.

Macronymchia (s. str.) *striginervis* (Zetterstedt, 1838)

Collected in “Theophania” park in 1999 (Verves & Khrokalo, 2006).

Distribution. Palaearctic: Europe northwards to Denmark and Leningrad Region, including British Is.; Asia: Japan (Hokkaido, Honshu), Kazakhstan, Mid Asia, Mid East (Jordan), Russia (South Siberia, Amur Region, Primorye, Sakhalin), Tibet, Transcaucasia (Azerbaijan, Georgia). Afrotropical: Kenya; South Africa. Ukraine: Cherkasy, Crimea, Chernigiv, Dnipropetrovsk, Ivano-Frankivsk, Kharkiv, Kyiv, Lviv, Poltava, Rivne, Sumy, Vinnytsya and Zakarpattyia Regions.

Material examined. Bushes near ponds, at leaves, 3.08.2002, 5 ♂, 3 ♀.

Macronymchia (s. str.) *substriginervis* Verves & Khrokalo, 2006

Collected in “Theophania” park in 1999 (Verves & Khrokalo, 2006).

Distribution. Palaearctic: Europe (Ukraine); Asia: Mid Asia (Turkmenistan, Uzbekistan), Russia (East Siberia). Ukraine: Dnipropetrovsk and Kyiv regions.

Macronymchia (*Moschusa*) *agrestis* (Fallén, 1810)

Collected in “Theophania” park in 1999 (Verves & Khrokalo, 2006).

Distribution. Palaearctic: Europe northwards to Sweden and Leningrad Region, except for British Is.; Asia: Russia (South Siberia: Altay and Buryatia). Ukraine: Cherkasy, Kharkiv, Kyiv and Volyn regions.

Macronymchia (*Moschusa*) *polyodon* (Meigen, 1824)*

Material examined. Park near buildings, at leaves, 25.06. — 6.07.2012, 3 ♀.

Distribution. Palaearctic: Europe northwards to Norway and Leningrad Region, including British Is.; North Africa: Morocco; Asia: China (Beijing, Neimenggu), Japan (Hokkaido, Honshu), Mid East (Cyprus, Israel), Mongolia, Russia (South Siberia, southern part of Far East, including Sakhalin). Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Ivano-Frankivsk, Kharkiv, Krym Republic, Kyiv, Lviv, Ternopil, Volyn, Zakarpattyia and Zhytomyr regions.

Senotainia (*Arrenopus*) *albifrons* (Rondani, 1859)*

Material examined. Mesophilic meadows and bushes near pond, 9.08.2002, 3 ♂, 2 ♀; one ♀ leads for ♀ of sphecid wasp *Philanthus triangulum*.

Distribution. Palaearctic: Europe northwards to Sweden and Leningrad Region, except for British Is.; North Africa: Algeria, Canary Is., Egypt, Tunisia; Asia: China (Neimenggu, Shaanxi), Japan (Honshu), Kazakhstan, Korea, Mid Asia, Mid East (Afghanistan, Cyprus, Saudi Arabia, Turkey), Mongolia, Russia (southern parts of Siberia and Far East), Transcaucasia. Afrotropical: Botswana, DR Congo, Kenya, Lesotho, Nigeria, Rodrigues Is., South Africa, St Helena, Tanzania, Zimbabwe. Oriental: India (Jammu & Kashmir), Japan: Ryukyu Is. (Amami-Oshima Isl.), Sri Lanka, Taiwan, Vietnam. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Donetsk, Kharkiv, Kherson, Kirovograd, Kyiv, Lugansk, Mykolaiv, Odesa, Poltava, Sumy, Vinnytsya, Zakarpattyia, Zaporizhzhya and Zhytomyr regions.

Senotainia (s. str.) *conica* (Fallén, 1810)*

Material examined. Mesophilic meadows near pond, 1.09.2002, 1 ♀.

Distribution. Palaearctic: Europe northwards to Norway and Leningrad Region, including British Is.; Asia: China (Hebei, Neimenggu), Mid Asia (Turkmenia), Mid East (Turkey), Mongolia, Kazakhstan, Russia (Siberia and Far East northwards to forest-tundra), Transcaucasia. Ukraine: Cherkasy, Chernigiv, Crimea, Dnipropetrovsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Kirovograd, Kyiv, Luhansk, Lviv, Odesa, Poltava, Sumy, Ternopil, Vinnytsya, Volyn, Zakarpattyia, Zaporizhzhya and Zhytomyr regions.

Miltogramma germari Meigen, 1824*

Material examined. Dry forest near pond, 28.07.2002, 1 ♂.

Distribution. Europe northwards to Sweden and Leningrad Region, including British Is.; North Africa: Algeria, Morocco; Asia: Kazakhstan, Mongolia, Russia (southern Siberia), Turkey. Ukraine: Cherkasy, Chernigiv, Kherson, Kirovograd, Kyiv, Lugansk, Mykolaiv, Odesa, Poltava, Zaporizhzhya and Zhytomyr regions.

Amobia oculata (Zetterstedt, 1844)*

Material examined. Park near buildings, at flowers of *Phalacroloma septentrionale* (Fernald & Wiegand) Tzvelev, 3.07.2012, 1 ♂.

Distribution. Palaearctic: Europe northwards to Sweden and Leningrad Region, except for British Is.; North Africa: Algeria; Asia: Japan (Honshu), Kazakhstan, Korea, Mongolia, Russia (southern parts of Siberia and Far East), Turkey. Nearctic: Canada: British Columbia, Labrador, New Brunswick, Ontario; USA: Arizona, California, Colorado, Georgia, Kansas (Byers, 1962), Maine, Maryland, Minnesota, Missouri (Rau, 1928), New Hampshire, New York, North Carolina, Pennsylvania, Wisconsin (Medler, 1965), Wyoming (Evans, 1973). Oriental: Nepal, Taiwan. Ukraine: Cherkasy, Chernigiv, Dnipropetrovsk and Kyiv regions.

Hilarella hilarella (Zetterstedt, 1844)*

Material examined. At sandy ground in park, 13.07.2012, 1 ♂, 1 ♀.

Distribution. Palaearctic: Europe northwards to Norway and Leningrad Region, including British Is.; North Africa: Canary Is. (Pape et al., 2002); Asia: Kazakhstan, Mongolia, Russia (southern Siberia). Nearctic: Canada: British Columbia, Yukon Territory; Mexico: Baja California Norte, Baja California Sur, México, Sonora; USA: Arizona, Arkansas, California, Colorado, District of Columbia, Florida, Idaho (Hampton, 2005), Indiana, Maryland, Massachusetts, Michigan, Mississippi, Nevada, New Jersey, New Mexico, New York, North Carolina, Oklahoma, Oregon, Pennsylvania, Texas, Virginia, Washington, Wyoming. Afrotropical: Chad. Ukraine: Cherkasy, Chernigiv, Crimea, Dnipropetrovsk, Donetsk, Kharkiv, Kherson, Kyiv, Odesa (Zerova et al., 2006), Poltava, Zakarpattyia, Zaporizhzhya and Zhytomyr regions.

Hilarella stictica (Meigen, 1830)*

Material examined. Mesophilic meadows & bushes near pond, 28.08.2002, 2 ♂.

Distribution. Palaearctic: Europe northwards to southern Sweden and Moscow Region, except for British Is.; North Africa: Algeria; Asia: China (Hebei, Neimenggu, Shanxi), Kazakhstan, Mongolia, Russia (southern Siberia), Transcaucasia. Ukraine: Cherkasy, Chernigiv, Crimea, Dnipropetrovsk, Kharkiv, Kherson, Kyiv, Luhansk'k, Lviv, Odesa (Zerova et al., 2006), Poltava, Ternopil and Zaporizhzhya regions.

Metopia argentata Macquart, 1850

Material examined. Dry forest near pond, at leaves, 21.07.2002, 1 ♂; 8.06. — 17.07.2012, 4 ♂, 2 ♀.

Distribution. Palaearctic: Europe northwards to Finland and Leningrad Region, except for British Is.; Asia: China (Hebei, Sichuan), Mongolia, Korea, Russia (Tomsk region and southern Far East, including

Kurily Is.), Tibet. Oriental: India: (Jammu & Kashmir), Indonesia (Sulawesi), Taiwan. Ukraine: Cherkasy, Chernigiv, Dnipropetrovsk, Ivano-Frankivsk, Kherson, Kyiv, Lviv, Poltava and Sumy (Zerova et al., 2006) regions.

Metopia argyrocephala (Meigen, 1824)*

Material examined. Humid forest near pond, at ground and leaves, 11.05. — 28.08.2002, 7♂, 2♀; 11.05. — 31.08. 2012, 11♂, 3♀.

Distribution. Palaearctic: Europe northwards to Norway and Karelia, including British Is., Asia: China (Beijing, Hebei, Henan, Heilongjiang, Neimenggu, Qinghai, Xinjiang), Japan, Kazakhstan, Korea, Mid Asia, Mid East (Afghanistan, Cyprus, Iran, Israel, Turkey, West Bank), Mongolia, Russia (Siberia, Far East), Transcaucasia. Nearctic: Canada: Alberta (O'Hara, Floate, Cooper, 2000), British Columbia, Newfoundland, Ontario, Quebec, Yukon Territory; Mexico: Baja California Norte, México, San Luis Potosí, Sonora; USA: Alaska, Arizona, California (Valenti, Ferrell, Berryman, 1997), Connecticut, Florida (Strange, 2000), Idaho, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Texas, Utah, Virginia, Washington, Wyoming. Oriental: Bangladesh, China: Fujian, Yunnan, Zhejiang, Guizhou (Wei, 2007), Japan (Ryukyu Is.), Laos, Malaysia: Borneo: Sabah, Sarawak (Kurahashi, Leh, 2007), Nepal, Sri Lanka. Neotropical: Belize, Cuba, Dominican Republic, Equator, El Salvador, Guatemala, Jamaica, Mexico (Guerrero, Jalisco, México, Veracruz), Peru. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Kirovograd, Kyiv, Lviv, Mykolayiv, Odesa, Poltava, Sumy, Ternopil, Vinnytsya, Zakarpatty, Zaporizhzhya and Zhytomyr regions.,

Metopia campestris (Fallen, 1810)*

Material examined. Mesophilic forest nr pond, at leaves, 22.05.2008, 1♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Leningrad region, including British Is. Asia: China (Beijing, Hebei, Heilongjiang, Neimenggu, Xinjiang), Japan, Kazakhstan, Korea, Mid Asia (Tajikistan, Uzbekistan), Mongolia, Russia (Siberia, Far East), Transcaucasia. Nearctic: Canada: British Columbia, Nova Scotia, Ontario, Yukon Territory; USA: Alaska, Arizona, California, Colorado, Connecticut, District of Columbia, Georgia, Idaho, Iowa, Kansas (Byers, 1962), Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Dakota (Allen, 1926), Ohio, Oregon, Pennsylvania, Vermont, Virginia, West Virginia, Wisconsin. Oriental: China: (Yunnan), India (Jammu and Kashmir). Ukraine: Cherkasy, Chernigiv, Chernivtsi, Dnipropetrovsk, Ivano-Frankivsk, Kharkiv, Khmelnytskyi, Kirovograd, Kyiv, Lviv, Poltava, Sumy, Vinnytsya, Volyn, Zakarpatty and Zhytomyr Regions.

Agria mamillata (Pandellé, 1896)*

Material examined. Fruit garden, at apple leaves, 15. & 25.05.2012, 1♂, 1♀.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Karelia, including British Is. Asia: Kazakhstan, Mid Asia (Kyrgyzstan, Tajikistan), Mid East (Turkey), Russia (southern parts of Siberia and Far East), Transcaucasia. Ukraine: Cherkasy, Chernigiv, Crimea, Ivano-Frankivsk, Kharkiv, Kyiv, Lviv, Odesa, Poltava, Sumy, Vinnytsya, Zakarpatty, Zaporizhzhya and Zhytomyr Regions.

Sarcophila latifrons (Fallen, 1817)*

Material examined. Dry forest near pond, at ground, 21-28.07.2002, 2♂, 2♀.

Distribution. Palaearctic: Europe northwards to Sweden, Finland and Leningrad Region, including British Is.; Asia: China (Shandong, Xinjiang), Kazakhstan, Mid Asia (Tajikistan), Mid East (Cyprus, Iran, Israel, Turkey), Transcaucasia; North Africa: Canary Is. Ukraine: Cherkasy, Chernigiv, Crimea, Dnipropetrovsk, Ivano-Frankivsk, Kharkiv,

Kherson, Khmelnytskyi, Kirovograd, Kyiv, Lviv, Mykolaiv, Odesa, Poltava, Rivne, Volyn, Zakarpatty, Zaporizhzhya and Zhytomyr Regions.

Brachicoma devia (Fallén, 1820)*

Material examined. Dry forest near pond, 21–28.07.2002, 2♀; at wall of building, 2.07.2012, 1♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Karelia, including British Is. Asia: China (Heilongjiang, Neimenggu, Sichuan, Xinjiang, Xizang), Japan (Hokkaido, Honshu), Kazakhstan, Mid East (Saudi Arabia), Mongolia, Russia (Siberia, Far East), Transcaucasia. Nearctic: Canada: Ontario, Quebec; USA: Alaska, Idaho, Michigan (Husband & Brown, 1976), Washington. Oriental: China (Yunnan), India (Jammu and Kashmir). Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Khmelnytskyi, Kyiv, Luhansk, Lviv, Poltava, Volyn, Zakarpatty, Zaporizhzhya and Zhytomyr Regions.

Nyctia halterata (Panzer, 1798)*

Material examined. Humid forest near pond, at leaves, 11.05. & 1.09.2002, 4♂, 1♀; 15.05. — 13.07.2012, 6♂.

Distribution. Palaearctic: Europe northwards to Denmark and Estonia, including British Is. (England). Asia: Mid East (Cyprus, Iran, Israel, Turkey), Transcaucasia. North Africa: Egypt, Libya, Morocco. Ukraine: Cherkasy, Crimea, Dnipropetrovsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Khmelnytskyi, Kirovograd, Kyiv, Poltava, Ternopil, Vinnytsya and Zakarpatty Regions.

Blaesoxiphia plumicornis (Zetterstedt, 1859)*

Material examined. Dry meadow near pond, 5–28.07.2002, 3♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Leningrad Region, including British Is. Asia: Afghanistan, China (Jilin, Liaoning, Xinjiang), Japan (Honshu), Kazakhstan, Korea, Mid Asia, Mid East (Iran, Israel, Saudi Arabia, Turkey), Mongolia, Russia (Siberia and Far East), Transcaucasia. North Africa: Egypt. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Kharkiv, Kherson, Kirovograd, Krym Republic, Kyiv, Luhansk, Mykolayiv, Poltava, Rivne, Sumy, Zakarpatty, Zaporizhzhya and Zhytomyr Regions.

Helicophagella (s. str.) *crassimargo* (Pandellé, 1896)*

Material examined. Humid forest near pond, 5.05.2002, 1♂.

Distribution. Palaearctic: Europe northwards to Sweden, Finland and Leningrad Region, including British Is. Asia: Kazakhstan, Mid Asia (Kyrgyzstan), Mid East (Turkey), Russia (Altai), Transcaucasia. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Ivano-Frankivsk, Kyiv, Odesa, Poltava, Volyn, Zakarpatty and Zhytomyr Regions.

Helicophagella (*Parabellieria*) *melanura* (Meigen, 1826)*

Material examined. Humid forest near pond and park near buildings, at leaves and wall, 11.05. — 1.09.2002, 19♂, 2♀; 22.05.2008, 1♂; 11.05. — 6.07.2012, 6♂, 2♀.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Murmansk, including British Is.; Asia: Afghanistan, China (Anhui, Beijing, Gansu, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jilin, Liaoning, Neimenggu, Ningxia, Qinghai Shandong, Shanghai, Shanxi, Shaanxi, Sichuan, Tianjin, Xinjiang), Japan, Kazakhstan, Korea, Mid East (Cyprus, Iran, Iraq, Israel, Jordan, Lebanon, Syria, Turkey, West Bank), Mid Asia, Mongolia, Russia (Siberia and Far East), Tibet, Transcaucasia; North Africa: Algeria, Canary Is., Egypt, Libya, Morocco, Tunisia. Nearctic: Canada: British Columbia, Quebec; USA: Massachusetts, New York, West Virginia. Afrotropical: Mauritania. Oriental: China (Hunan, Zhejiang, Fujian, Fuzhou, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangxi, Yunnan, Zhejiang), India (Bihar, Jammu & Kashmir, Tamil Nadu), Japan (Ryukyu Is.), Malaysia (West Malaysia), Pakistan, Taiwan. Ukraine: Cherkasy, Chernigiv,

Chernivtsi, Crimea, Dnipropetrovsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Khmel'nytskyi, Kirovograd, Kyiv, Luhansk, Lviv, Mykolayiv, Odesa, Poltava, Rivne, Sumy, Ternopil, Vinnytsya, Volyn, Zakarpattyia, Zaporizhzhya and Zhytomyr Regions.

Heteronychia (s. str.) bulgarica (Enderlein, 1936)*

Material examined. Humid forest near pond, 5.05. & 28.08.2002, 2 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Estonia and Leningrad Region, instead of British Is. Asia: Transcaucasia. Ukraine: Cherkasy, Donetsk, Kharkiv, Kyiv, Luhans'k, Poltava, Volyn and Zhytomyr Regions.

Heteronychia (s. str.) haemorrhoa (Meigen, 1826)*

Material examined. Humid forest near pond, at flowers of *Solidago canadensis* L., 11.05. — 28.08.2002, 11 ♂; 2.08. — 5.09.2012, 2 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Leningrad Region, including British Is. Asia: Mid East (Turkey), Transcaucasia. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Ivano-Frankivsk, Kharkiv, Kherson, Kyiv, Mykolayiv, Odesa and Zakarpattyia Regions.

Heteronychia (s. str.) proxima (Rondani, 1860)*

Material examined. Humid forest near pond, at leaves, flowers of *Phalacroloma annuum* (L.) Dumort, *P. septentrionale* (Fernald. & Wiegand) Tzvelev, *Solidago canadensis* L., 11.05. — 1.09.2002, 39 ♂, 2 ♀; 22.05.2008, 2 ♂, 1 ♀; 11.05. — 31.08.2012, 91 ♂, 13 ♀.

Distribution. Palaearctic: Europe northwards to Sweden, Finland and Leningrad Region, instead of British Is.; Asia: China (Xinjiang); North Africa: Libya (Bezzi, 1921). Ukraine: Cherkasy, Chernigiv, Chernivtsi, Dnipropetrovsk, Ivano-Frankivsk, Kharkiv, Kherson, Kirovograd, Kyiv, Lugansk, Lviv, Mykolayiv, Odesa, Poltava, Vinnytsya, Vinnytsya, Volyn, Zakarpattyia, Zaporizhzhya and Zhytomyr Regions.

Heteronychia (s. str.) vagans (Meigen, 1826)*

Material examined. Humid forest near pond and stream, at flowers of *Phalacroloma septentrionale* (Fernald. & Wiegand) Tzvelev, *Solidago canadensis* L., 11.05. — 1.09.2002, 36 ♂, 4 ♀; 22.05.2008, 1 ♂; 15.05—25.06.2012, 4 ♂, 2 ♀.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Karelia, including British Is.; Asia: China (Heilongjiang), Japan (Hokkaido), Mid East (Turkey), Russia (southern Siberia and Far East), Transcaucasia (Georgia). Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Donets, Ivano-Frankivsk, Kharkiv, Kherson, Khmelnytskyi, Kirovograd, Kyiv, Lviv, Mykolayiv, Odesa, Poltava, Rivne, Sumy, Ternopil, Vinnytsya, Volyn, Zakarpattyia, Zaporizhzhya and Zhytomyr Regions.

Bellieriomima subulata (Pandellé, 1896)*

Material examined. Humid forest near pond, at leaves and flowers of *Solidago canadensis* L., 5–11.05.2002, 4 ♂; 22.05.2008, 1 ♂; 12.06. — 18.08.2012, 3 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Karelia, including British Is. Asia: Kazakhstan, Russia (Altai, West Sayan, Amur Region), Transcaucasia. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Ivano-Frankivsk, Kirovograd, Kyiv, Poltava, Volyn, Zakarpattyia and Zhytomyr Regions.

Sarina sexpunctata (Fabricius, 1805)*

Material examined. Mesophilic forest, at leaves, 26. & 31.07.2012; 2 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Leningrad Region, including British Is.; Asia: China (Beijing, Heilongjiang, Jilin, Liaoning, Sichuan, Tianjin, Xinjiang), Japan (Hokkaido, Honshu), Kazakhstan, Mid East (Turkey), Mongolia, Russia

(Siberia and Far East), Transcaucasia; North Africa: Canary Is. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Ivano-Frankivsk, Kherson, Kyiv, Zakarpattyia and Zhytomyr Regions.

Thrysocnema incisilobata (Pandellé, 1896)*

Material examined. Mesophilic and gyrophilic forests, borders of ponds and streams, at ground, leaves, flowers of *Phalacroloma annuum* (L.) Dumort, *P. septentrionale* (Fernald. & Wiegand) Tzvelev, *Solidago canadensis* L., 11.05. — 1.09.2002, 24 ♂; 22.05.2008, 2 ♂; 15.05. — 21.09.2012, 58 ♂, 3 ♀.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Leningrad Region, including British Is.; Asia: Kazakhstan, Mid Asia (Uzbekistan), Mid East (Turkey), Russia (West Siberia and Kamchatka), Transcaucasia; North Africa: Algeria. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Ivano-Frankivsk, Kharkiv, Kherson, Khmelnytskyi, Kyiv, Lviv, Poltava, Rivne, Sumy, Ternopil, Volyn, Zakarpattyia, Zaporizhzhya and Zhytomyr Regions.

Beracea africa (Wiedemann, 1824)*

Material examined. Park near buildings, at ground, 6.07.2012; 1 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Estonia and Leningrad Region, including British Is. Asia: Afghanistan, China (Beijing, Gansu, Hebei, Henan, Neimenggu, Ningxia, Qinghai, Shaanxi, Shandong, Shanghai, Shanxi, Sichuan, Xinjiang), Cyprus, Japan, Kazakhstan, Korea, Mid Asia, Mid East (Iran, Iraq, Israel, Jordan, Lebanon, Saudi Arabia, Turkey, Syria, West Bank), Russia (southern parts of Siberia & Far East), Tibet, Transcaucasia; North Africa: Algeria, Azores, Canary Is., Egypt, Libya, Madeira, Morocco, Tunisia, Nearctic: Canada: Ontario, Quebec; USA: California, Connecticut (Britton, 1920), Colorado (Tucker, 1906), Florida, Georgia, Illinois, Iowa (Bruce & Knipling, 1936), Kansas (Tucker, 1906), Massachusetts, Missouri, Montana (Parker, 1914), New Jersey (Johnson, 1912), New Mexico (Cockerell, 1905), New York (Emmons, 1854), North Carolina (Brimley, 1938), Oregon, Texas, Wyoming (Webster, 1907). Oriental: Bhutan, India (Arunachal Pradesh, Assam, Bihar, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland), Nicobar Is., Punjab, Sikkim, Uttar Pradesh, West Bengal), Nepal, Pakistan, Thailand, Vietnam. Australasian/Oceanian: Australia (New South Wales, Easter I.), Hawaii (Hawaii, Lanai, Molokai, Oahu). Afrotropical: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, D. R. Congo, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Ivory Coast, Kenya, Lesotho, Liberia, Malawi, Mauritania, Mozambique, Namibia, Nigeria, Rodrigues Is., Rwanda, St. Helena, Sierra Leone, Somali (Bezzi, 1913), South Africa (all parts), Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe, Yemen. Madagascan: Madagascar (Diégo-Suarez, Nosy Be, Nosy Komba), Mauritius (Cargados Is., Siren I., Mauritius I.), Rodrigues Is., Reunion I., Seychelles (Amirantes Is.: Desroches I.; Granitic Is.: Felicité Is., La Digue I.; Mahe I., Poivre I.). Neotropical: Argentina: Buenos Aires, Mendoza (Brèthes, 1907); Brazil: Rio de Janeiro, Rio Grande do Sul; Costa Rica, Cuba, Galapagos Is., Mexico, Panama (Calero, 1948); Paraguay. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Khmelnytskyi, Kirovograd, Kyiv, Lugansk, Lviv, Mykolayiv, Odesa, Poltava, Rivne, Sumy, Ternopil, Vinnytsya, Volyn, Zakarpattyia, Zaporizhzhya and Zhytomyr Regions.

Liosarcophaga (s. str.) emdeni (Rohdendorf, 1969)*

Material examined. Mesophilic and gyrophilic forests, borders of ponds and streams, at ground, leaves, flowers of *Solidago canadensis* L., 11.05. — 28.08.2002, 14 ♂; 22.05.2008, 1 ♂; 11.05. — 12.09.2012; 27 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Leningrad Region, including British Is. Asia: China (Xinjiang), Kazakhstan, Mid East (Turkey), Russia (southern Siberia), Transcaucasia. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Ivano-Frankivsk, Kherson, Khmelnytskyi, Kyiv, Lviv, Mykolayiv, Odesa, Poltava, Rivne, Ternopil, Vinnytsya, Volyn, Zakarpattyia, Zaporizhzhya and Zhytomyr Regions.

Liosarcophaga* (s. str.) *parkeri* (Rohdendorf, 1937)

Material examined. At wall of building, 1.06. 2012, 1 ♂.

Distribution. Palaearctic: Europe northwards to Denmark, Estonia and Voroniezh Region, instead of British Is. Asia: China (Gansu, Ningxia, Xinjiang), Kazakhstan, Mid Asia, Mid East (Israel, Saudi Arabia), Transcaucasia. North Africa: Egypt. Ukraine: Cherkasy, Crimea, Dnipropetrivsk, Donetsk, Kharkiv, Kherson, Kirovograd, Kyiv, Lugansk, Mykolayiv, Odesa, Poltava and Zaporizhzhya Regions.

Liosarcophaga* (s. str.) *portschinskyi* (Rohdendorf, 1937)

Material examined. Humid forest near pond, at flowers of *Solidago canadensis* L., 11.05.2002, 1 ♂; 7.08. 2012, 1 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Leningrad Region, including British Is. (England). Asia: China (Beijing, Gansu, Hebei, Heilongjiang, Henan, Jilin, Liaoning, Neimenggu, Ningxia, Qinghai, Shaanxi, Shandong, Shanghai, Shanxi, Xinjiang), Kazakhstan, Mid East (Turkey), Mid Asia, Mongolia, Russia (southern Siberia, Primorye), Tibet, Transcaucasia. North Africa: Morocco. Oriental: China (Yunnan), Pakistan. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrivsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Kirovograd, Kyiv, Lugansk, Lviv, Mykolayiv, Odesa, Poltava, Sumy, Volyn, Zakarpattya, Zaporizhzhya and Zhytomyr Regions.

Liosarcophaga* (s. str.) *tuberosa* (Pandellé, 1896)

Material examined. Mesophilic and gyrophilic forests, borders of ponds and streames, at ground and leaves, 11.05. — 28.07.2002, 6 ♂; 21.05. — 9.08. 2012, 11 ♂.

Distribution. Palaearctic: Europe northwards to England, Germany and Leningrad Region, including British Is. Asia: China (Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jilin, Liaoning, Ningxia, Shaanxi, Shandong, Shanghai, Shanxi, Sichuan, Xinjiang), Japan (Honshu, Kyushu), Kazakhstan, Mid Asia, Mongolia, Korea, Russia (southern parts of Siberia and Far East), Transcaucasia. Oriental: China (Guangxi, Guizhou), Japan (Ryukyu Is.), Pakistan (Utar Glacier), Taiwan. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrivsk, Kharkiv, Kherson, Kirovograd, Kyiv, Lugansk, Poltava, Sumy, Volyn and Zakarpattya Regions.

Liosarcophaga* (*Pandelleisca*) *similis* (Meade, 1876)

Material examined. Mesophilic and gyrophilic forests, near buildings, borders of ponds and streames, at ground, leaves, flowers of *Solidago canadensis* L., 28.07.2002, 5 ♂; 22.05.2008, 1 ♂; 11.05. — 1.10.2012, 16 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Murmansk, including British Is. Asia: China (Gansu, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jilin, Liaoning, Neimenggu, Ningxia, Shaanxi, Shandong, Shanghai, Shanxi, Sichuan), Japan, Korea, Mid East (Iran, Turkey), Russia (Siberia, Far East), Transcaucasia. North Africa: Azores. Oriental: China (Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangxi, Yunnan, Zhejiang). Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrivsk, Ivano-Frankivsk, Kharkiv, Kherson, Kirovograd, Kyiv, Mykolayiv, Odesa, Poltava, Rivne, Sumy, Ternopil, Vinnytsya, Volyn, Zakarpattya, Zaporizhzhya and Zhytomyr Regions.

Parasarcophaga* (s. str.) *albiceps* (Meigen, 1826)

Material examined. Mesophilic and gyrophilic forests, near buildings, borders of ponds and streames, at ground, leaves, flowers of *Phalacroloma annuum* (L.) Dumort, 5–28.07.2002, 4 ♂; 22.05.2008, 1 ♂; 30.05. — 21.09.2012, 15 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Karelia, including British Is. Asia: China (Gansu, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jilin, Liaoning, Neimenggu, Ningxia, Shaanxi, Shandong, Shanghai, Shanxi, Sichuan), Japan, Kazakhstan, Korea, Mid East (Israel, Turkey), Russia (Siberia, Far East), Tibet, Transcaucasia. North Africa: Algeria, Egypt. Oriental: Bangladesh, Bhutan, China

(Fujian, Guangdong, Guangxi, Guizhou, Hainan, Hunan, Jiangxi, Yunnan, Zhejiang), India (Andaman Is., Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chandigarh, Dādra and Nagar Haveli, Damān and Diu, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Laccadive Is., Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Nicobar Is., Orissa, Pondicherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal), Indonesia (Flores Arch.: Lekebai I., Maumere I., Woowaru I.; Java, Kalimantan, Lombok, Sulawesi, Sumatra, Sumba, Timor), Japan (Amami Is., Ryukyu Is.), Malaysia (Sarawak, West Malaysia), Myanmar, Nepal, Pakistan (North-West Frontier, Punjab), Philippines (Balabac, Palawan, Tawi Tawi), Singapore, Sri Lanka, Taiwan, Thailand, Vietnam. Australasian/Oceanian: Australia (Queensland); Hawaiian Is. (Hawaii, Kauai, Maui, Molokai, Oahu), Indonesia (Irian Jaya, Maluku: Ambon I., Aru I., Ceram I.), Papua New Guinea (Bismarck Arch.: Lavongai, Manus, New Britain, New Ireland; New Guinea, Solomon Is. (Guadalcanal). Afrotropical: Kenya (Lehrer, 2006).

Robineauella* (s. str.) *caeruleascens* (Zetterstedt, 1838)

Material examined. Humid forest near pond: at ground, 11.05.2002, 2 ♂; 21.09.2012, 1 ♀.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Murmansk, including British Is. Asia: China (Jilin, Sichuan, Xinjiang), Japan (Honshu), Kazakhstan, Mid Asia (Kyrgyzstan, Tajikistan), Mongolia, Russia (Siberia, Far East), Tibet, Transcaucasia. Nearctic: Canada (Yukon Territory), USA (Alaska). Oriental: China: Yunnan. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Ivano-Frankivsk, Kharkiv, Kherson, Khmelnytskyi, Kirovograd, Kyiv, Lviv, Poltava, Rivne, Ternopil, Vinnytsya, Volyn, Zakarpattya, Zaporizhzhya and Zhytomyr Regions.

Rosellea aratrix* (Pandellé, 1896)

Material examined. Mesophilic forests, at ground, leaves, flowers of *Solidago canadensis* L.; 5.07. — 28.08.2002, 3 ♂; ibid., 22.05.2008, 2 ♂; 11.05. — 5.09.2012, 8 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Leningrad Region, including British Is. Asia: China (Liaoning, Neimenggu), Kazakhstan, Mid East (Turkey), Russia (Siberia, Far East), Transcaucasia. Nearctic: Canada (Manitoba), USA (Alaska). Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Ivano-Frankivsk, Kharkiv, Kherson, Kirovograd, Kyiv, Mykolayiv, Odesa, Poltava, Sumy, Vinnytsya, Volyn, Zakarpattya, Zaporizhzhya and Zhytomyr Regions.

Sarcophaga carnaria* (Linnaeus, 1758)

Material examined. Gyrophilic forests, borders of ponds and streames, at ground, leaves, flowers of *Solidago canadensis* L., 11.05–1.09.2002, 51 ♂; ibid., 22.05.2008, 8 ♂; 15.05. — 21.09.2012, 107 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Karelia, including British Is. Asia: Mid East (Israel, Syria), Kazakhstan, Russia (Siberia), Transcaucasia. North Africa: Egypt, Libya. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrivsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Kyiv, Lugansk, Lviv, Mykolayiv, Odesa, Poltava, Rivne, Sumy, Volyn, Zakarpattya, Zaporizhzhya and Zhytomyr Regions.

Sarcophaga lehmanni* Müller, 1922

Material examined. Mesophilic forests, borders of ponds and streames, near buildings, at roads, ground, leaves, walls, flowers of *Solidago canadensis* L., 11.05. — 1.09.2002, 80 ♂; ibid., 22.05.2008, 39 ♂; 24.04. — 21.09.2012, 574 ♂, 3 ♀.

Distribution. Palaearctic: Europe northwards to Norway, Estonia and Leningrad Region, instead of British Is. Asia: Afghanistan, Kazakhstan, Mid Asia, Mid East (Iran, Iraq, Israel, Saudi Arabia, **Syria**, **Turkey**), Transcaucasia. North Africa: Algeria, Egypt, Morocco, Tunisia. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrivsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Kirovograd, Kyiv, Mykolayiv, Odesa, Poltava, Rivne, Sumy, Volyn, Zakarpattya, Zaporizhzhya and Zhytomyr Regions.

Kyiv, Lugansk, Lviv, Mykolayiv, Odesa, Poltava, Rivne, Sumy, Ternopil, Vinnytsya, Volyn, Zakarpatty, Zaporizhzhya and Zhytomyr Regions.

Sarcophaga subvicina Rohdendorf, 1937*

Material examined. Gyrophitic forests, borders of ponds and streames, at ground, leaves, flowers of *Phalacroloma annuus* (L.) Dumort, *Solidago canadensis* L., 10.06.2009, 3 ♂; 15.05. — 31.08. 2012, 45 ♂.

Distribution. Palaearctic: Europe northwards to Sweden, Finland and Leningrad Region, including British Is. Asia: Mid Asia (Tajikistan, Turkmenistan), Transcaucasia. North Africa: Tunisia. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Kharkiv, Khmelnytskyi, Kyiv, Lugansk, Lviv, Poltava, Rivne, Sumy, Vinnytsya and Zakarpatty Regions.

Sarcophaga variegata (Scopoli, 1763)*

Material examined. Mesophilic and gyrophitic forests, borders of ponds and streames, at ground, leaves, flowers of *Phalacroloma annuus* (L.) Dumort, *P. septentrionale* (Fernald & Wiegand) Tzvelev and *Solidago canadensis* L., 25.08–5.09.1999, 26 ♂; 11.07–9.08.2002, 32 ♂; 11.05. — 21.09. 2012, 181 ♂.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Leningrad Region, including British Is. Asia: China (Neimenggu, Xinjiang), Kazakhstan, Mid Asia (Tajikistan), Mid East (Iran, Israel, Turkey), Russia (Siberia, Far East), Transcaucasia (Georgia). North Africa: Algeria, Egypt, Morocco, Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Khmelnytskyi, Kirovograd, Kyiv, Lviv, Mykolayiv, Odesa, Poltava, Rivne, Sumy, Ternopil, Vinnytsya, Volyn, Zakarpatty, Zaporizhzhya and Zhytomyr Regions.

Ravinia pernix (Harris, 1780)*

Material examined. Forest near pond and park near buildings, 25.06–21.09.2012, 12 ♂, 5 ♀.

Distribution. Palaearctic: Europe northwards to Norway, Finland and Murmansk, including British Is. Asia: Afghanistan, China (Beijing, Gansu, Hebei, Heilongjiang, Henan, Hubei, Jiangsu, Jilin, Liaoning, Neimenggu, Ningxia, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan, Tianjin, Xinjiang), Kazakhstan, Korea, Mid Asia, Mid East (Cyprus, Iran, Iraq, Israel, Jordan, Lebanon, Saudi Arabia, Syria, Turkey, West Bank), Mongolia, Russia (Siberia, Far East), Tibet, Transcaucasia. North Africa: Algeria, Azores, Canary Is., Egypt, Libya, Morocco. Oriental: Bangladesh, Bhutan, China (Guizhou, Hunan, Yunnan), India (Andhra Pradesh, Arunachal Pradesh, Bihar, Himachal Pradesh, Jammu & Kashmir, Uttar Pradesh, West Bengal), Nepal, Pakistan (Punjab). Afrotropical: Chad, Yemen. Ukraine: Cherkasy, Chernigiv, Chernivtsi, Crimea, Dnipropetrovsk, Donetsk, Ivano-Frankivsk, Kharkiv, Kherson, Khmelnytskyi, Kirovograd, Kyiv, Lugansk, Lviv, Mykolayiv, Odesa, Poltava, Rivne, Sumy, Ternopil, Vinnytsya, Volyn, Zakarpatty, Zaporizhzhya and Zhytomyr Regions.

Appendix

List of the species of Sarcophagidae recorded from Kyiv City

1. *Macronymchia* (s. str.) *striginervis* (Zetterstedt, 1838).
 2. *M.* (s. str.) *substriginervis* Verves & Khrokalo, 2006. 3.
M. (Moschusa) agrestis (Fallén, 1810). 4. *M. (M.) alpestris* Rondani, 1865. 5. *M. (M.) polyodon* (Meigen, 1824). 6. *Senotainia (Arrenopus) albifrons* (Rondani, 1859). 7. *S. (A.) sibirica* Rohdendorf, 1935. 8. *S. (s. str.) conica* (Fállen, 1810). 9. *S. (s. str.) tricuspis* (Meigen, 1838). 10.

- Pterella grisea* (Meigen, 1824). 11. *P. melanura* (Meigen, 1824). 12. *Miltogramma brevipila* Villeneuve, 1911. 13. *M. germari* Meigen, 1824. 14. *M. oestracea* (Fallén, 1820). 15. *M. punctata* Meigen, 1824. 16. *M. testaceifrons* (von Roser, 1840). 17. *Miltogrammidium rutilans* (Meigen, 1824). 18. *Apodactra pulchra* Egger, 1851. 19. *Oebalia cylindrica* (Fallén, 1810). 20. *Ptychoneura minuta* (Fallén, 1810). 21. *Amobia pelopei* (Rondani, 1859). 22. *A. signata* (Meigen, 1824). 23. *A. oculata* (Zetterstedt, 1844). 24. *Hilarella hilarella* (Zetterstedt, 1844). 25. *H. stictica* (Meigen, 1824). 26. *Paragusia elegantula* (Zetterstedt, 1844). 27. *P. multipunctata* (Rondani, 1859). 28. *Taxigramma heteroneura* (Meigen, 1830). 29. *Metopia argentata* Macquart, 1850. 30. *M. argyrocephala* Meigen, 1824. 31. *M. campestris* (Fallén, 1810). 32. *M. italiana* Pape, 1985. 33. *M. staegeri* Rondani, 1859. 34. *Phrosinella* (s. str.) *nasuta* Meigen, 1824. 35. *Mesomelena mesomelaena* (Löw, 1848). 36. *Phylloteles pictipennis* (Löw, 1844). 37. *Nyctia halterata* (Panzer, 1798). 38. *Agria affinis* (Fallén, 1817). 39. *A. mamillata* (Pandellé, 1896). 40. *Angiometopa falleni* Pape, 1986. 41. *Brachicoma devia* (Fallén, 1820). 42. *Sarcophila latifrons* (Fallén, 1817). 43. *Wohlfahrtia magnifica* (Schiner, 1862). 44. *W. meigeni* (Schiner, 1862). 45. *Blaesoxiphia gryllooctona* Löw, 1861. 46. *B. plumicornis* (Zetterstedt, 1859). 47. *B. redempta* (Pandellé, 1896). 48. *Servaisia* (s. str.) *erythrura* Meigen, 1826. 49. *S. (s. str.) rossica* (Villeneuve, 1912). 50. *Helicophagella* (s. str.) *agnata* (Rondani, 1860). 51. *H. (s. str.) crassimargo* (Pandellé, 1896). 52. *H. (s. str.) noverca* (Rondani, 1860). 53. *H. (s. str.) rosellei* (Böttcher, 1913). 54. *H. (Parabellieria) melanura* Meigen, 1826. 55. *Discachaeta pumila* (Meigen, 1826). 56. *Heteronychia* (s. str.) *bulgarica* (Enderlein, 1936). 57. *H. (s. str.) chaetoneura* Brauer & Bergenstamm, 1889. 58. *H. (s. str.) depressifrons* (Zetterstedt, 1845). 59. *H. (s. str.) dissimilis* (Meigen, 1826). 60. *H. (s. str.) haemorrhoa* (Meigen, 1826). 61. *H. (s. str.) haemorrhoides* (Böttcher, 1913). 62. *H. (s. str.) mazurmovitshi* Verves, 1979. 63. *H. (s. str.) proxima* (Rondani, 1860). 64. *H. (s. str.) slovaca* Povolný & Slamečková, 1967. 65. *H. (s. str.) vagans* Meigen, 1826. 66. *Karovia hirticrus* (Pandellé, 1896). 67. *Ascelolectella (Mimarhopocnemis) granulata* Kramer, 1908. 68. *Bellieriomima subulata* (Pandellé, 1896). 69. *Myorhina* (Mehria) *nemoralis* (Kramer, 1908). 70. *M. (s. str.) nigriventris* (Meigen, 1826). 71. *M. (s. str.) socrus* (Rondani, 1860). 72. *M. (s. str.) villeneuvei* (Böttcher, 1912). 73. *Sarina olsovjevi* (Rohdendorf, 1937). 74. *S. sexpunctata* (Fabricius, 1805). 75. *Thrysocnema incisilobata* (Pandellé, 1896). 76. *Bercea africa* (Wiedemann, 1824). 77. *Liopygia* (*Jantia*) *crassipalpis* (Macquart, 1839). 78. *L. (Thomsonea) argyrostoma* (Robineau-Desvoidy, 1830). 79. *L. (Varirosetta) uliginosa* Kramer, 1908. 80. *Liosarcophaga* (s. str.) *emdeni* (Rohdendorf, 1969). 81. *L. (s. str.) harpax* (Pandellé, 1896). 82. *L. (s. str.) jacobsoni* (Rohdendorf, 1937). 83. *L. (s. str.) parkeri* (Rohdendorf, 1937). 83. *L. (s. str.) portschinskii* (Rohdendorf, 1937). 84. *L. (s. str.) tuberosa* (Pandellé, 1896). 85. *L.*

(*Pandelleisca*) *similis* (Meade, 1876). 86. *Parasarcophaga* (s. str.) *albiceps* (Meigen, 1826). 87. *Robineauella* (s. str.) *caerulescens* (Zetterstedt, 1838). 88. *Sarcophaga carnaria* (Linnaeus, 1758). 89. *S. lehmanni* Müller, 1922. 90. *S. serbica* Baranov, 1930. 91. *S. subvicina* Rohdendorf, 1937. 92. *S. variegata* (Scopoli, 1763). 92. *Kramerea schuetzei* (Kramer, 1909). 93. *Rosellea aratrix* (Pandellé, 1896). 94. *Ravinia pernix* (Harris, 1780). 95. *Sarcotachinella sinuata* (Meigen, 1926).

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References

- Allen, H. W. (1926). North American species of two-winged flies belonging to the tribe Miltogrammini. *Proceedings of the United States National Museum* 68 (9) (2610), 1–106 + Pls. 1–5.
- Bezzi, M. (1913). Ditteri raccolti nella Somalia italiana meridionale. *Redia*, 10, 219–223.
- Bezzi, M. (1921). Ditteri di cirenaica raccolti dal Prof. Alessandro Ghigi durante l'escursione organizzata dal touring club italiano nel mese d'aprile 1920. *Atti della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale in Milano*, 60, 1–12.
- Brèthes, J. (1907). Catálogo de los dípteros de las Repúblicas de Plata. *Anales del Museo Nacional de Buenos Aires*. Ser. 3, 14, 277–305.
- Brimley, C. S. (1938). *The insects of North Carolina. Being a list of the insects of North Carolina and their close relatives*. North Carolina Department of Agriculture, Division of Entomology, Raleigh, North Carolina, 1–560.
- Britton, W. E. (1920). Check-list of the insects of Connecticut. *Bulletin of Connecticut State Geology and Natural History Survey*, 31, 1–397.
- Byers, G. W. (1962). Observations at nests of *Cerceris halone* Banks (Hymenoptera: Sphecidae). *Journal of Kansas Entomological Society*, 35 (3), 317–321.
- Bruce, W. G. & Knippling, E. F., (1936). Seasonal appearance and relative abundance of flies attracted to baited traps. *Iowa State College Journal of Science*, 10 (4), 361–366.
- Calero, M. C. (1948). Cutaneous myiasis in Panama. *Journal of Parasitology*, 34 (4), 343–344.
- Cockerell, T. D. A. (1905). The Diptera of Kansas and New Mexico. *Transactions of the Kansas Academy of Sciences*, 19, 250–251.
- Emmons, E. (1854). Agriculture of New York. Vol. 5. D. Appleton & Co., Wiley & Putnam, New York, i–ix + 1–272 + A–C plates + 47 plates.
- Evans, H. E. (1973). Further studies on the wasps of Jackson Hole, Wyoming (Hymenoptera: Aculeata). *Great Basin Naturalist* 33, 147–155.
- Hampton, N. (2005). Insects of the Idaho National Laboratory: A compilation and review. *USDA Forest Service Proceedings RMRS-P-38*, 116–130.
- Husband, R. & Brown, T. M. (1976). Insects associated with Michigan bumblebees (*Bombus* spp.). *Great Lakes Entomologist*, 9 (1), 57–62.
- Johnson, C. W. (1912). Dipterological notes. *Psyche*, 19, 102–104.
- Khrokalo, L. A. & Verves, Yu. G. (2009). Dragonflies (Odonata) and certain two-winged insects (Diptera: Calliphoridae; Sarcophagidae) of the Shatsk Lake district. *Scientific Bulletin of Volyn National University in Memory of Lesya Ukrainka*. (2) *Biological sciences*, 114–118 [in Ukrainian].
- Kurahashi, H. & Leh, M. U. (2007). The flies from Sarawak, East Malaysia (Diptera: Muscidae, Calliphoridae, Sarcophagidae and Tachinidae). *Medical Entomology and Zoology*, 58 (4), 261–273.
- Lehrer, A. Z. (2006). Liste des Sarcophaginae et Paramacronychiinae du Proche Orient, identifiés dans les collections de TAU (Diptera, Sarcophagidae). *Fragmenta dipterologica*, 3, 14–22.
- Lopes, H. S. (1982). The importance of the mandible and clypeal arch of the first instar larvae in the classification of Sarcophagidae (Diptera). *Revista brasiliense de entomologia* 26 (3–4), 293–326.
- Medler, J. T. (1965). Biology of *Isodontia (Murrayella) mexicana* in trap-nests in Wisconsin (Hymenoptera: Sphecidae). *Annals of Entomological Society of America* 58 (2), 137–142.
- O'Hara, J. E., Floate, K. D. & Cooper, B. E. (2000). The Sarcophagidae (Diptera) of cattle feedlots in southern Alberta. *Journal of Kansas Entomological Society* 72 (2), 167–176.
- Pape, T. (1996). Catalogue of the Sarcophagidae of the world (Insecta: Diptera). *Memoirs of Entomology, International*. Vol. 8, *Sarcophagidae*. Associated Publishers, Gainsville, Florida, 1–558.
- Pape, T., González-Mora, D., Peris, S. V. & Báez, M. (2002). Sarcophagidae. In: Carles-Tolrá Hjorth-Andersen, M., Coordinator. *Monografías SEA, Zaragoza*. Vol. 8. *Catálogo de los Diptera de España, Portugal y Andorra (Insecta)*, 218–221.
- Parker, R. R. (1914). Summary of report to the Montana State Board of Entomology concerning fly investigations conducted in the Yellowstone Valley during the summer of 1914. *First Biennial Report of the Montana State Board Entomology (1913–1914)*, 35–50.
- Rau, P. (1928). Field studies on the behavior of the non-social wasps. *Transactions of Sent Louis Academy of Sciences* 25: 325–489.
- Rohdendorf, B. B. (1965) Composition of the tribe Sarcophagini (Diptera, Sarcophagidae) of Eurasia. *Entomologicheskoye Obozreniye* 44 (3): 676–695 [in Russian with English summary].
- Rohdendorf, B. B. [Родендорф Б. Б.] (1970). Fam. Sarcophagidae. In: Bey-Bienko G. Ya., Ed. *Key to Insects of European Part of USSR. Vol. 5. Diptera, Siphonaptera. Part 2*, Nauka, Leningrad, 624–670 [in Russian].
- Strange, L. A. (2000). The Cicada killers in Florida (Hymenoptera: Sphecidae). *Florida Department of Agriculture, Division of Plant Industry Entomology*, Circular No. 402, 1–2.
- Tucker, E. S. (1906). Contributions towards a catalogue of the insects of Kansas. *Transactions of the Kansas Academy of Sciences*, 20, 190–201.
- Valenti, M. A., Ferrell, G. T. & Berryman, A. A. (1997). *Insects and related arthropods associated with green leaf manzanita in montane Chaparral communities of northeastern California*. General Technical Report PSW-GTR-167. Pacific Southwest Research Station, Albany, CA, Forest Service, U. S. Dept. Agriculture, 1–26.
- Verves, Yu. G. (1982). 64h. Sarcophaginae. In: Lindner, E., Ed. *Die Fliegen der paläarktischen Region*, 11 (327), Stuttgart, 235–296.
- Verves, Yu. G. (1985). 64h. Sarcophaginae. In: Lindner, E., Ed. *Die Fliegen der paläarktischen Region*, 11 (330), Stuttgart, 297–400.
- Verves, Yu. G. (1986). Family Sarcophagidae. In: Soós, Á. & Papp, L., Eds. *Catalogue of Palaearctic Diptera*. Vol. 12. *Calliphoridae — Sarcophagidae*. Science Herald, Budapest, 58–193.
- Verves, Yu. G. (1989a). The phylogenetic systematics of the miltogrammatine flies (Diptera, Sarcophagidae) of the world. *Japanese Journal of Medical Sciences and Biology*, 42, 111–126.
- Verves, Yu. G. (1989b). A review of the subtribes *Harpagophallina* and *Heteronychiina* (Diptera, Sarcophagidae). *Zoologicheskiy zhurnal*, 68 (7), 89–97 [in Russian with English summary].
- Verves, Yu. G. (1990a). Prof. Hugo de Souza Lopes and the modern system of Sarcophagidae (Diptera). *Memórias do Instituto Oswaldo Cruz* [1989], 84 (Suppl. 4), 529–545.

- Verves, Yu. G. (1990b). The system of the Sarcophagidae of the world. *Abstracts of the 2nd International Congress of Dipterology*, Bratislava, 253.
- Verves, Yu. G. (1993). 64h. Sarcophaginae. In: Lindner, E., ed. *Die Fliegen der paläarktischen Region*, 11 (331). Stuttgart, 441–504.
- Verves, Yu. G. (1994). A key to genera and subgenera of Palaearctic Miltogrammatinae (Diptera: Sarcophagidae) with a description of a new genus. *International Journal of Dipterological Research*, 5 (3), 239–247.
- Verves, Yu. G. (1997). Taxonomic notes on some Sarcophagini (Sarcophagidae, Diptera). *Journal of Ukrainian Entomological Society*, 3 (2), 37–62.
- Verves, Yu. G. (1998a). To the knowledge of the subfamilies of the Sarcophagidae (Diptera). *International Journal of Dipterological Research*, 9 (3), 243–244.
- Verves, Yu. G. (1998b). A checklist of species of the Ukrainian Sarcophagidae (Diptera) with a description of a new species. *Journal of Ukrainian Entomological Society*, 4 (3–4), 49–57.
- Verves, Yu. G. (2000). Sarcophagidae (Diptera) from Dnipropetrov'sk oblast. *Ecology and Noosphaerology*, 9 (1–2), 122–126.
- Verves, Yu. G. (2001a). The composition of Paramacronychiinae (Sarcophagidae, Diptera) with the descriptions of two new genera. *International Journal of Dipterological Research*, 12 (3): 145–149.
- Verves, Yu. G. (2001b). Sarcophagidae and Calliphoridae (Diptera) of Chernivtsi Oblast. *Scitntific Reports of Chernivtsi University*. 126. Biology, 163–167.
- Verves, Yu. G. (2003). The flies of the families Calliphoridae, Sarcophagidae and Rhinophoridae (Insecta: Diptera) of Botany garden in memory of O. V. Fomin of Kyiv National T. Shevchenko University. *Introduction and Conservation of Plant Diversity*, 6, 43–46.
- Verves, Yu. G. (2004). The results of study of the system and fauna of two-winged insects during 40 years (Insecta: Diptera). — Kyiv Natiolnal Taras Shevchenko University. Scientific Papers. Vol. 2. Biology, 66–73 [in Ukrainian with English summary].
- Verves, Yu. G. (2010). Special composition of two-winged flies (Diptera: Sarcophagidae, Rhinophoridae, Calliphoridae) in district of Bogatyrsk biological station of Melitopol State Pedagogical University (Zaporyzhyia region). 6th International scientific and practical Internet-conference, Melitopol. <http://conference.mdpu.org.ua/viewtopic.php>.
- Verves, Yu. G. (2012 a). The first record of *Bellardia pubicornis* (Diptera, Calliphoridae) from Ukraine. *Vestnik zoologii*, 46 (4), 380.
- Verves, Yu. G. (2012 b). The flies (Diptera) of the park “Theophania”, Kyiv. 1. Calliphoridae and Rhinophoridae. *Ukrainska Entomofaunistyka*, 3 (3), 31–36.
- Verves, Yu. G. (2013 a) New record of *Pollenia vera* (Diptera, Calliphoridae) from Ukraine. *Vestnik zoologii*, 47 (1), 94.
- Verves, Yu. G. (2013 b) The first record of *Pollenia moravica* (Diptera, Calliphoridae) in Ukrainian fauna. *Vestnik zoologii*, 47(1), 94.
- Verves, Yu. G. & Khrokalo, L. A. (2006 a). Review of Macronychiinae (Diptera, Sarcophagidae) of the world. *Vestnik zoologii*, 40 (3), 219–239.
- Verves, Yu. G. & Khrokalo, L. A. (2006 b). 123. Fam. Sarcophagidae. *Key to the insects of Russian Far East*, 6 (4), 64–178 [in Russian].
- Verves, Yu. G., Richet, R. (2009). Description of a new species of *Macronychia* Rondani, 1859, from France (Diptera, Sarcophagidae). *Bulletin de la Société entomologique de France* 114 (1), 111–114.
- Verves, Yu. G. & Szpila, K. (2008). *Miltogramma drabermonkoi* sp. n. from Ukraine (Diptera: Sarcophagidae: Miltogramminae). *Polish Journal of Entomology*, 77, 57–61.
- Verves, Yu. G. & Szpila, K. (2011). *Agriella gavrylenkoi*, a new species of fleshfly from Ukraine (Diptera: Sarcophagidae: Sarcophaginae). *Polish Journal of Entomology*, 80, 123–128.
- Webster, F. M. (1907). The value of parasites in central and forage crop production. *Bulletin of United States Department of Agriculture, Bureau of Entomology*, 67, 94–100.
- Wei, L. M. (2007) Sarcophagidae. In: Li, Z. Z., Yang M. F., Jin, D. C. (eds.) *Insects from Leigongshan Landscape*. Guizhou Science & Technology Press, Guiyang, 526–539.
- Xue, W. & Verves, Yu. G. (2009). *Perisimyia perisi*, a new genus and species from South China (Diptera: Sarcophagidae). *Boletín de la Asociación española de entomología*, 33 (1–2): 43–58.
- Xue, W., Verves, Yu. G. & Du, J. (2011). A review of subtribe Boettcheriscina Verves 1990 (Diptera: Sarcophagidae), with descriptions of a new species and genus from China. *Annales de la Société entomologique de France* (n. s.), 47 (3–4), 303–329.
- Zerova, M. D., Romasenko, L. P., Seryogina, L. Ya. & Verves Yu. G. (2006). *Natural insect enemies of solitary bees of the fauna of Ukraine*, Veles, Kyiv, 1–236 [in Ukrainian]