

# 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 Science,  
Vladivostok

Number 138: 1-19

ISSN 1026-051X

June 2004

## A REVIEW OF THE SPECIES OF «*ONESIA*» GENERIC GROUP (DIPTERA: CALLIPHORIDAE). PART 3. THE SPECIES OF GENUS *ONESIA* ROBINEAU-DESVOIDY, 1830

Yu. G. Verves

*Biological Faculty of Kiev National Taras Shevchenko University, Vladimirskaya  
str. 64, Kiev, 01033, Ukraine*

An annotated list of 58 species of the genus *Onesia* is given. *Onesia sidorenkoi* **sp. n.** is described from Ukraine. Four new combinations are proposed: *Onesia fengchengensis* (Chen, 1979), **comb. n.**, *O. qinghaiensis* (Chen, 1979), **comb. n.**, *O. semilunaris* (Fan et Feng, 1993), **comb. n.**, *Melinda parafacialis* (Kurahashi et Tumrasvin, 1979), **comb. n.**

KEY WORDS: Calliphoridae, *Onesia*, taxonomy, distribution, ecology.

Ю. Г. Вервес. Обзор видов группы родов «*Onesia*» (Diptera: Calliphoridae).  
Часть 3. Виды рода *Onesia* Robineau-Desvoidy, 1830 // Дальневосточный  
энтомолог. 2004. N 138. С. 1-19.

Приведен аннотированный список 58 видов рода *Onesia*. Из Украины описан *Onesia sidorenkoi* **sp. n.** Установлены 4 новые комбинации видовых названий: *Onesia fengchengensis* (Chen, 1979), **comb. n.**, *O. qinghaiensis* (Chen, 1979), **comb. n.**, *O. semilunaris* (Fan et Feng, 1993), **comb. n.**, *Melinda parafacialis* (Kurahashi et Tumrasvin, 1979), **comb. n.**

*Биологический факультет, Киевский национальный университет им. Т.Г.  
Шевченко, ул. Владимирская 64, Киев, 01033, Украина.*

## INTRODUCTION

Genus *Onesia* is widely distributed in the Palearctic, Oriental and Australasian/Oceanian regions. A several revisions, descriptions of the new species, and reviews of species of some regional faunas have been made (Chen et al., 1992; Fan, 1992; Fan et al., 1997; González-Mora, 1989; Rognes, 1991; Schumann, 1964, 1973; Xue, Chao, 1996; Zumpt, 1956). The determination of full specific list of this genus is rather difficult, because of some authors have mixed species of *Onesia* with *Bellardia* Robineau-Desvoidy, 1863 (James, Kurahashi, 1976; Kurahashi, 1964, 1981, 1982a, b, 1984, 1987-1989, 1992, 1994; Kurahashi et al., 1997; Kurahashi, Chohanadisai, 2001; Kurahashi, Thapa, 1994, etc.), especially in Oriental and Australasian/Oceanian regions. I try to compose the full list of *Onesia*-species with all known data on distribution and habits.

The distribution data are given according catalogues (James, 1977; Kurahashi, 1989; Schumann, 1986) and papers (see above and: Čepelák, 1986; Draber-Moňko, 1991; González-Mora, 1989; Gregor, Rozkošný, 1997; Grunin, 1970a, b; Gudjabidze, 2000; Kano, Shinonaga, 1968; Kano et al., 1999; Kurahashi, 1991, 1992, 2001, 2003; Kurahashi, Banu, 1989; Kurahashi, Fauran, 1980; Kurahashi, Jayasekera, 1989; Kurahashi, Magpayo, 2000; Kurahashi, Miranda, 1988; Martínez-Sánchez et al., 2001; Papp, 2001; Rognes, 1997, 1998; Rudzinski, 1992; Sing et al., 1979; Tumrasvin et al., 1979; Verves, 2001, 2002).

Genus *Onesia* belongs to *Onesia*-group of the tribe Calliphorini according Kurahashi (1972) and Fan et al. (1997) together with genera *Bellardia* Robineau-Desvoidy, 1830, *Polleniopsis* Townsend, 1917, *Tainanina* Villeneuve, 1926 and *Tricycleopsis* Villeneuve, 1924. A key to these genera are given recently (Verves, 2004).

### Genus *Onesia* Robineau-Desvoidy, 1830

*Onesia* Robineau-Desvoidy, 1830: 365. Type species: *Onesia floralis* Robineau-Desvoidy, 1830, by subsequent designation (Townsend, 1916: 8).

*Macrophallus* Müller, 1922: 62. Type species: *Onesia austriaca* Villeneuve, 1920, by subsequent designation (Townsend, 1935: 170). Synonymized by Schumann, 1964: 915.

*Macronesia* Villeneuve, 1926: 130. Type species: *Onesia hendeli* Villeneuve, 1926 [= *Onesia kowarzi* Villeneuve, 1920], by subsequent designation (Townsend, 1935: 170). Synonymized by Schumann, 1964: 915.

*Onesioides* Schumann, 1973: 338. Type species: *Melinda hokkaidensis* Baranov, 1939, by original designation. Synonymized by Rognes, 1991: 97.

*Pellonesia* Lu et Fan, 1981 in: Wang et al., 1981: 255, 258. Type species: *Onesia pterygoides* Lu et Fan, 1981, by monotypy. Synonymized by Rognes, 1991: 97.

DIAGNOSIS. Medium-sized flies (5.0-12.0 mm) with black thorax and green, bronze of blue metallic abdomen with more or less developed light pollination. Frons in males very narrow; 1st flagellomere more than 2 times as long as pedicel; outmost *ph* presents; *ac* 1-2 + 2-4, *dc* 2-3 + 3-4, *ia* 0-1 + 3-4; *r*<sub>5</sub> usually open, sometimes closed at wing margin.

SPECIES INCLUDED. The majority of 58 known species are Palaearctic (26) and Australasian/Oceanian (23); 6 species known from Oriental region. Two species (*O. batangensis*, *O. wolongensis*) are common for Palaearctic and Oriental regions, 1 species (*O. minuta*) – for Oriental and Australasian/Oceanian regions.

NOTES. *Onesia parafacialis* Kurahashi et Tumrasvin, 1979 from Oriental region (Laos, Thailand) has bare upper surface of thoracic squama and non dentate acrophallus and really belongs to genus *Melinda* (Melanomyini), therefore new combination is proposed here: *Melinda parafacialis* (Kurahashi et Tumrasvin, 1979), **comb. n.**

### List of species

#### ***Onesia abaensis* Chen et Fan, 1992**

*Onesia abaensis* Chen et Fan, 1992, in: Chen et al., 1992: 1189, 1213; Fan, 1992: 503; Fan et al., 1997: 343, 642.

DISTRIBUTION. Palaearctic: China: Sichuan.

#### ***Onesia apicalis* (Malloch, 1927)**

*Calliphora apicalis* Malloch, 1927: 312.

*Onesia apicalis*: Kurahashi, 1989: 706.

DISTRIBUTION. Australasian/Oceanian: Australia: New South Wales.

#### ***Onesia assimilis* (Malloch, 1927)**

*Calliphora assimilis* Malloch, 1927: 317.

*Onesia assimilis*: Kurahashi, 1989: 706.

DISTRIBUTION. Australasian/Oceanian: Australia: Queensland.

#### ***Onesia atripalpis* (Malloch, 1935)**

*Calliphora atripalpis* Malloch, 1935: 669; Senior-White et al., 1940: 41; James, 1977: 531.

*Onesia atripalpis*: Singh et al., 1979: 10; Kurahashi et al., 1997: 18; Kurahashi, Magpayo, 2000: 12.

DISTRIBUTION. Oriental: Malaysia: Borneo (Sabah), Malaya (Pahang); Philippines: Luzon, Mindanao.

#### ***Onesia auriventris* (Malloch, 1927)**

*Calliphora auriventris* Malloch, 1927: 315.

*Onesia auriventris*: Kurahashi, 1989: 706.

DISTRIBUTION. Australasian/Oceanian: Australia: New South Wales.

***Onesia australica* (Malloch, 1927)**

*Calliphora australica* Malloch, 1927: 314.

*Onesia australica*: Kurahashi, 1989: 706.

DISTRIBUTION. Australasian/Oceanian: Australia: New South Wales.

***Onesia austriaca* Villeneuve, 1920**

*Onesia austriaca* Villeneuve, 1920: 204; Séguy, 1928: 130; Jacentkovský, 1933: 3; 1941: 18; Zumpt, 1956: 27; Schumann, 1964: 924; Grunin, 1970a: 611; Skufin, Khitsova, 1978: 88; Čepelák, 1986: 256; Schumann, 1986: 33; González Mora, 1989: 45; Draber-Moňko, 1991: 245; Rudzinski, 1992: 86; Gregor, Rozkošný, 1997: 97; Martínez -Sanchez et al., 1998: 179; Gudjabidze, 2000: 150; Papp, 2001: 421; Verves, 2001: 166.

*Macrophallus austriaca*: Townsend, 1937: 153.

*Onesia macrophallus* Stein, 1924: 267; Baranov, 1927: 41. Synonymised by Villeneuve, 1928: 150.

*Xerophilophaga macrophallus*: Enderlein, 1933: 12.

*Onesia cognata* (misidentification: not *Musca cognata* Meigen, 1830: 374): Müller, 1922: 62. Synonymised by Schumann, 1964: 924.

DISTRIBUTION. Palaearctic: Austria; Bulgaria; Croatia; Czech Republic; France; Germany; Hungary; Italy; Moldova; Poland; Romania; Russia: European part; Serbia; Slovakia; Spain; Switzerland; Ukraine.

***Onesia batangensis* Chen et Fan, 1992**

*Onesia batangensis* Chen et Fan, 1992, in: Chen et al., 1992: 1190, 1213; Fan, 1992: 504; Fan et al., 1997: 345, 642.

DISTRIBUTION. Palaearctic: China: Sichuan. Oriental: China: Yunnan.

***Onesia bergmani* Kurahashi, 2003**

*Onesia bergmani* Kurahashi, 2003: 131.

DISTRIBUTION. Australasian/Oceanian: Indonesia: Irian Java.

***Onesia bryani* Kurahashi, 1981**

*Onesia bryani* Kurahashi, 1981: 439.

DISTRIBUTION. Australasian/Oceanian: Fiji.

***Onesia canescens* Villeneuve, 1926**

*Onesia (Macronesia) canescens* Villeneuve, 1926: 131; Zumpt, 1956: 27; Schumann, 1964: 925, 1986: 33; Čepelák, 1986: 256; Gregor, Rozkošný, 1997: 97.

DISTRIBUTION. Palaearctic: France; Slovakia.

***Onesia chuanxiensis* Chen et Fan, 1992**

*Onesia chuanxiensis* Chen et Fan, 1992, in: Chen et al., 1992: 1191, 1213; Fan, 1992: 505; Fan et al., 1997: 351, 642.

DISTRIBUTION. Palaearctic: China: Sichuan.

***Onesia clarki* (Malloch, 1927)**

*Calliphora clarki* Malloch, 1927: 316.

*Onesia clarki*: Kurahashi, 1989: 706.

DISTRIBUTION. Australasian/Oceanian: Australia: Western Australia.

***Onesia currani* Kurahashi, 1989**

*Onesia currani* Kurahashi, 1989c: 706. new name for *Melinda minuta* Curran, 1929; Kurahashi, Magpayo, 2000: 12; Kurahashi, 2003: 128.

*Melinda minuta* Curran, 1929: 9 [Junior primary homonym of *Melinda minuta* Malloch, 1928: 328]. Type locality: male: New Caledonia: New Caledonia.

*Onesia minuta*: James, Kurahashi, 1976: 20; Kurahashi, Fauran, 1980: 406; Arnaud, Owen, 1981: 179; Kurahashi, 1987: 35.

DISTRIBUTION. Oriental: Philippines: Mindanao. Australasian/Oceanian: Indonesia: Batanta Is., Irian Java; New Caledonia; Papua New Guinea: Bismarck Arch. (Dyaul, Hermit, Lavongai, Manus, New Ireland), Bougainville I., New Guinea; Vanuatu.

***Onesia danielssoni* Kurahashi, 2001**

*Onesia danielssoni* Kurahashi, 2001: 248.

DISTRIBUTION: Oriental: Sri Lanka.

***Onesia elliptica* (Macquart, 1847)**

*Calliphora elliptica* Macquart, 1847a: 83; 1847b: 99.

*Onesia elliptica*: Kurahashi, 1989: 706.

DISTRIBUTION. Australasian/Oceanian: Australia: Tasmania.

***Onesia erlangshanensis* Feng, 1998**

*Onesia erlangshanensis* Feng, 1998: 328, 332.

DISTRIBUTION. Palaearctic: China: Sichuan.

***Onesia fae* Kurahashi et Miranda, 1988**

*Onesia fae* Kurahashi et Miranda, 1988: 40; Kurahashi, Magpayo, 2000: 14.

DISTRIBUTION. Oriental: Philippines: Mindanao.

***Onesia fengchengensis* (Chen, 1979), comb. nov.**

*Bellardia fengchengensis* Chen, 1979: 388, 391; 1986: 13; Fan, 1992: 494; Fan et al., 1997: 319, 639.

DISTRIBUTION. Palaearctic: China: Liaoning.

***Onesia flora* Feng, 1998**

*Onesia flora* Feng, 1998: 329, 332.

DISTRIBUTION. Palaearctic: China: Sichuan.

***Onesia floralis* Robineau-Desvoidy, 1830**

*Onesia floralis* Robineau-Desvoidy, 1830: 366; Rognes, 1991: 98; Gregor, Rozkošný, 1997: 97; Martínez -Sanchez et al., 1998: 179; 2001: 84;

*Musca sepulcralis* Meigen, 1826: 71. Junior primary homonym of *Musca sepulcralis* Linnaeus, 1758: 596. Synonymized by Rognes, 1991: 98.

*Onesia sepulcralis*: Schiner, 1862: 576; Bezzi, Stein, 1907: 552; Kramer, 1917: 284; Stein, 1924: 266; Baranov, 1927: 41; Lundbeck, 1927: 154; Séguy, 1928: 134; Townsend, 1937: 158; Zumpt, 1956: 28; Schumann, 1964: 920; 1986: 33; Čepelák, 1986: 257; González Mora, 1989: 46; Draber-Moňko, 1991: 245; Rognes, 1985: 90; Papp, 2001: 421.

*Onesia claripennis* Robineau-Desvoidy, 1830: 367. Synonymized by Rognes, 1991: 98.

*Melinda albiceps* Robineau-Desvoidy, 1830: 440. Synonymized by Rognes, 1991: 98.

*Onesia subapennina* Rondani, 1862: 182; Bezzi, Stein, 1907: 552. Synonymized by Rognes, 1991: 98.

*Calliphora retrocurva* Pandellé, 1896: 211. Synonymized by Rognes, 1991: 98.

*Onesia retrocurva*: Müller, 1922: 63.

*Macrocephalus retrocurvus*: Rohdendorf, 1926: 95.

DISTRIBUTION. Palaearctic: Andorra; Austria; Belgium; Croatia; Czech Republic; Denmark; Finland; France; Germany; Hungary; Italy; Norway; Poland; Romania; Serbia; Slovakia; Spain; Sweden; Ukraine.

HABITS. Larvae known as parasites of earthworms *Allolobophora caliginosa*, *A. chlorotica*, *A. foetida* (Keilin, 1915).

***Onesia fuscata* Kurahashi, 1984**

*Onesia fuscata* Kurahashi, 1984: 351; 1987: 16; 1989: 706; 2003: 127.

DISTRIBUTION. Australasian/Oceanian: Indonesia: Batanta Is., Irian Java; Papua New Guinea: Biak I., New Guinea; Solomon Isl.: Guadalcanal I.

***Onesia garzeensis* Chen et Fan, 1992**

*Onesia garzeensis* Chen et Fan, 1992, in: Chen et al., 1992: 1193, 1214; Fan, 1992: 505; Fan et al., 1997: 352, 642.

DISTRIBUTION. Palaearctic: China: Sichuan.

***Onesia gonideci* Kurahashi et Fauran, 1980**

*Onesia gonideci* Kurahashi et Fauran, 1980: 403; Kurahashi, 1989: 706.

DISTRIBUTION. Australasian/Oceanian: New Caledonia.

***Onesia hokkaidensis* (Baranov, 1939)**

*Melinda hokkaidensis* Baranov, 1939: 112; Sabrosky, Crosskey, 1970: 427.

*Onesia hokkaidensis*: Zumpt, 1956: 28; Kurahashi, 1964: 386; Schumann, 1964: 926; Kano, Shinonaga, 1968: 34; Schumann, 1973: 338; Kurahashi, 1982b: 375; 1986: 429; Schumann, 1986: 34; Chen et al., 1992: 1212; Fan, 1992: 503, Fan et al., 1997: 342, 641.

DISTRIBUTION. Palaearctic: China: Liaoning; Japan: Hokkaido, Honshu, Kyushu, Shikoku.

***Onesia hongyuanensis* Chen et Fan, 1992**

*Onesia hongyuanensis* Chen et Fan, 1992, in: Chen et al., 1992: 1194, 1213; Fan, 1992: 504; Fan et al., 1997: 349, 642.

DISTRIBUTION. Palaearctic: China: Sichuan.

***Onesia ismayi* Kurahashi, 1987**

*Onesia ismayi* Kurahashi, 1987: 14; 1989: 706.

DISTRIBUTION. Australasian/Oceanian: Papua New Guinea: New Guinea.

***Onesia japonica* Kurahashi, 1964**

*Onesia japonica* Kurahashi, 1964: 387; Schumann, 1986: 34.

DISTRIBUTION. Palaearctic: Japan: Honshu.

***Onesia jiuzhaigouensis* Chen et Fan, 1992**

*Onesia jiuzhaigouensis* Chen et Fan, 1992, in: Chen et al., 1992: 1194, 1213; Fan, 1992: 504; Fan et al., 1997: 349, 642.

DISTRIBUTION. Palaearctic: China: Sichuan.

***Onesia kamimurai* Kurahashi et Jayasekera, 1989**

*Onesia kamimurai* Kurahashi et Jayasekera, 1989: 394; Kurahashi, 2001: 241.

DISTRIBUTION. Oriental: Sri Lanka.

***Onesia koreana* Kurahashi et Park, 1972**

*Onesia koreana* Kurahashi et Park, 1972: 22; Park, 1977: 195; Schumann, 1986: 34.

DISTRIBUTION. Palaearctic: South Korea.

***Onesia kowarzi* Villeneuve, 1920**

*Onesia kowarzi* Villeneuve, 1920: 205; Zumpt, 1956: 27; Schumann, 1964: 927; Skufin, Khitsova, 1978: 88; Čepelák, 1986: 257; Schumann, 1986: 33; Draber-Moňko, 1991: 245; Rudzinski, 1992: 86; Gregor, Rozkošný, 1997: 97; Papp, 2001: 421.

*Onesia hendeli* Villeneuve, 1926: 130. Synonymized by Schumann, 1964: 927.

*Macronesia hendeli*: Townsend, 1937: 152.

DISTRIBUTION. Palaearctic: Austria; Czech Republic; Hungary; Poland; Slovakia; Ukraine.

***Onesia kraussi* Kurahashi, 1981**

*Onesia kraussi* Kurahashi, 1981: 436; 1989: 706.

DISTRIBUTION. Australasian/Oceanian: Fiji.

***Onesia lanka* Kurahashi et Jayasekera, 1989**

*Onesia lanka* Kurahashi et Jayasekera, 1989: 392; Kurahashi, 2001: 241.

DISTRIBUTION. Oriental: Sri Lanka.

***Onesia marina* Kurahashi et Magpayo, 2000**

*Onesia marina* Kurahashi et Magpayo, 2000: 14.

DISTRIBUTION. Oriental: Philippines: Palawan.

***Onesia melinda* (Curran, 1928)**

*Calliphora melinda* Curran, 1928: 8.

*Onesia melinda*: Kurahashi, Fauran, 1980: 407; Arnaud, Owen, 1981: 179; Kurahashi, 1989: 706.

DISTRIBUTION. Australasian/Oceanian: New Caledonia; Solomon Isl.

***Onesia metallica* (Malloch, 1927)**

*Calliphora metallica* Malloch, 1927: 314.

*Onesia metallica*: Kurahashi, 1989: 706.

DISTRIBUTION. Australasian/Oceanian: Australia: New South Wales.

***Onesia minor* (Malloch, 1927)**

*Calliphora minor* Malloch, 1927: 314.

*Onesia minor*: Kurahashi, 1989: 706.

DISTRIBUTION. Australasian/Oceanian: Australia: Queensland.



***Onesia noumea* (Curran, 1928)**

*Calliphora noumea* Curran, 1928: 405.

*Onesia noumea*: Kurahashi, Fauran, 1980: 405; Arnaud, Owen, 1981: 179; Kurahashi, 1989: 707.

DISTRIBUTION. Australasian/Oceanian: New Caledonia.

***Onesia obscurata* (Walker, 1858)**

*Musca obscurata* Walker, 1858: 105.

*Onesia obscurata*: Kurahashi, 1989: 707.

*Musca mesembrinoides* Walker, 1860: 244. Synonymized by Kurahashi, 1989: 707.

DISTRIBUTION. Australasian/Oceanian: Indonesia: Irian Java, Maluku.

***Onesia occidentalis* Feng, 2003**

*Onesia occidentalis* Feng, 2003: 166, 169.

DISTRIBUTION. Palaearctic: China: Sichuan.

***Onesia perida* (Hardy, 1937)**

*Calliphora perida* Hardy, 1937: 22.

*Onesia perida*: Kurahashi, 1989: 707.

DISTRIBUTION. Australasian/Oceanian: Australia: Queensland.

***Onesia pterygoides* Lu et Fan, 1981**

*Onesia pterygoides* Lu et Fan, 1981, in: Wang et al., 1981: 255, 258; Schumann, 1986: 34; Chen et al., 1992: 1212; Fan, 1992: 503; Fan et al., 1997: 340, 641.

DISTRIBUTION. Palaearctic: China: Shanxi.

***Onesia qinghaiensis* (Chen, 1979), comb. n.**

*Bellardia qinghaiensis* Chen, 1979: 385, 391; Schumann, 1986: 14; Fan, 1992: 494; Fan et al., 1997: 318, 639.

DISTRIBUTION. Palaearctic: China: Qinghai.

***Onesia robusta* (Malloch, 1927)**

*Calliphora robusta* Malloch, 1927: 313.

*Onesia robusta*: Kurahashi, 1989: 707.

DISTRIBUTION. Australasian/Oceanian: Australia: New South Wales.

***Onesia sedlaceki* Kurahashi, 1987**

*Onesia sedlaceki* Kurahashi, 1987: 9; 1989: 707.

DISTRIBUTION. Australasian/Oceanian: Papua New Guinea: New Guinea

***Onesia semilunaris* (Fan et Feng, 1993), comb. n.**

*Bellardia semilunaris* Fan et Feng, 1993, in: Fan et al., 1993: 200; Fan et al., 1997: 310, 638.

DISTRIBUTION. Palaearctic: China: Sichuan.

***Onesia sidorenkoi* Verves, sp. n.**

Figs 1-7

MATERIAL. Holotype – ♂: Ukraine: Kiev region, Myronivka district, environs of Tulyntzy village, feather-grass steppe with bushes, 29.V 2003 (Yu. Verves). Paratypes – 2 ♀, the same locality, 29.V 2003, 1 ♀, the same locality, 4.VI 2003. Type material deposited in Laboratory of Zoology and Ecology, Biological Faculty of Kiev National Taras Shevchenko University.

DESCRIPTION. MALE. Total length 12.2 mm.

Head: Frons narrow, about 2 times width of anterior ocellus, as broad than distance between posterior ocelli inclusive, at narrowest 0.058 times of head width. Fronto-orbital plates in the narrowest part of frons clearly wider than frontal vitta, almost contiguous. Parafrontals yellowish-white dusted. Parafacialia with greyish-yellow dusting, weakly shifting spots, with long black setae, which distinctly longer than width of the 1st flagellomere. 1st flagellomere 1.8 times as long as pedicel. Antennae entirely black. Arista with rather long hairs on upper side, their total length about half as wide as 1st flagellomere, and with short ones on underside. Palpus almost not widened at apex, brown, distinctly darkened at base. Head black except for hgenal dilation, which is brown. Lunula black, white dusted. 12-14 pairs of long frontal bristles, only 5-6 of them more or less strong.

Thorax: Black, thinly grayish dusted, with 3 black broad dorsal longitudinal stripes. 3 strong *h* bristles, 2 strong inner *ph* and one outer *ph* setae; *ps* well developed. *acr* 2-3 + 3, *dc* 3 + 3, *ia* 1 + 3, presutural ones very small, hair-like. Scutellum with 3 pairs of strong marginals and a weaker pair of discal bristles. Fore and hind spiracles black.

Legs: Black. Fore tibia with 2 *pv* bristles. Mid tibia with 1 *v* bristle. Hind tibia with 1 *av* bristle.

Wings: Basicosta, tegula and veins black. Wings distinctly infuscated along costal margin and along the veins. Costal spine absents. Costa setulose below from base almost to junction with *Sc*. Cell  $r_{4+5}$  distinctly open. Base of vein  $R_{4+5}$  with several short setae at upper and lower surfaces. *M* in apical part (after angle) almost straight. Both calypters pale, lower with several black and white hairs at base of upper surface.

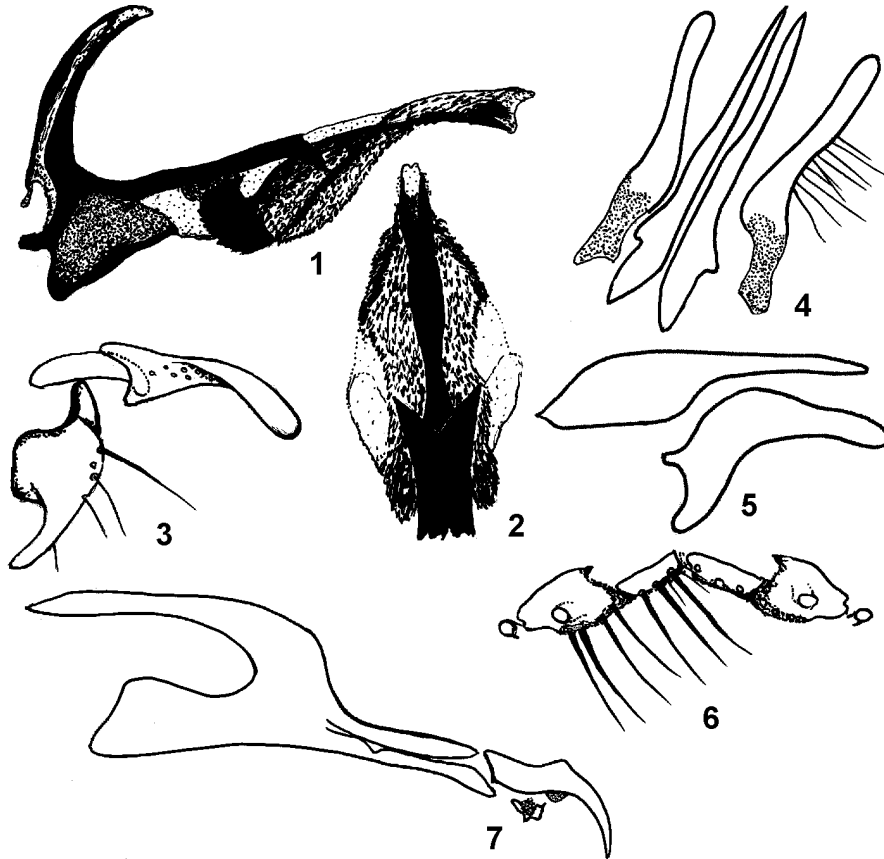
Abdomen: Distinctly greyish white dusted, shining metallic blue green. Erect ground vestiture on all tergites. Complete rows of strong marginal on 3th–5th tergites; discal setae all over 5th tergite and in hind part of 4th tergite.

Postabdomen (Figs 1-5): 6th tergite with a row of strong marginal bristles, black, divided at middle with strong bristles; 7+8th segment black. Epandrium black, grey dusted, cerci black, surstyli brownish black, aedeagus and gonites black. Apical part of cerci in profile narrow and straight, as long as surstyli. Surstyli in profile distinctly curved ventrally; in dorsal view straight and diverged. Paraphallic hook badly developed; acrophallus straight, narrowed apically, with oval lateral wings. Postgonite with distinct basal bristle.

FEMALE. Total length 9.8-12.0 mm. Frons 0.29-0.33 times as long as head' width. Frontal vitta 3.0 times as wide as one paraorbitals. Presutural *ia* absent. Mid tibia with 1-2  $\nu$  bristles. 6th tergite completely divided, each of its lateral parts consists of narrow inner and widened outer plates (Fig. 6).

FIRST INSTAR LARVA (Fig. 7). 8 specimens of 1st instar larvae were derived from the abdomen of one of females; ovoviviparous species. Total length 1.5 mm. Labrum absence, mandible in profile with crescent-shaped apical hook; dental sclerite well sclerotized.

ETYMOLOGY. Named in honour of well-known Russian dipterist Vasily Sidorenko.



Figs 1-7. *Onesia sidorenkoi* sp. n. 1) aedeagus laterally; 2) distiphallus dorsally; 3) gonites laterally; 4) cerci and surstyli dorsally; 5) the same, laterally; 6) 6th abdominal tergite ♀; 7) cephalopharyngeal skeleton of 1st instar larva.

DIAGNOSIS. This species by the presence of elongate parafacial setae and construction of cerci of male related to *Onesia zumpti* Schumann, 1964, but separated by distinctly infuscated wings of both sexes and by curved ventrally surstyli of male.

DISTRIBUTION. Palaearctic: Ukraine.

***Onesia sinensis* Villeneuve, 1936**

*Onesia sinensis* Villeneuve, 1936: 10; Schumann, 1973: 338; 1986: 34; Chen et al., 1992: 1213; Fan, 1992: 504; Fan et al., 1997: 347, 642.

DISTRIBUTION. Palaearctic: China: Gansu, Sichuan.

***Onesia songpanensis* Chen et Fan, 1992**

*Onesia songpanensis* Chen et Fan, 1992, in: Chen et al., 1992: 1196, 1213; Fan, 1992: 504; Fan et al., 1997: 344, 642.

DISTRIBUTION. Palaearctic: China: Sichuan.

***Onesia subalpina* Kurahashi, 1964**

*Onesia subalpina* Kurahashi, 1964: 388; Grunin, 1970b: 476; Kurahashi, 1986: 430; Schumann, 1986: 34.

DISTRIBUTION. Palaearctic: Japan: Honshu; Russia: Southern Primorye.

***Onesia tessellata* (Macquart, 1843)**

*Calliphora tessellata* Macquart, 1843a: 287; 1843b: 130.

*Onesia tessellata*: Kurahashi, 1989: 707.

DISTRIBUTION. Australasian/Oceanian: Indonesia: Irian Java.

***Onesia tibialis* (Macquart, 1846)**

*Calliphora tibialis* Macquart, 1846a: 323; 1846b: 195.

*Onesia tibialis*: Kurahashi, 1989: 707; Wallman, Donnellan, 2001: 61.

*Pollenia ruficornis* Macquart, 1847a: 85 (Macquart, 1847b: 101). Junior primary homonym of *Pollenia ruficornis* Macquart, 1834: 154. Synonymized by Kurahashi, 1989: 707.

DISTRIBUTION. Australasian/Oceanian: Australia: Queensland, South Australia, Tasmania.

HABITS: probably, bred in earthworms; flies visit carrion to feed rather than to reproduce (Norris, 1991); adults known as pollinators of orchid *Bulbophyllum weinthalii* R. Rogers (Jones, 1985).

***Onesia tokui* Kurahashi, 1986**

*Onesia tokui* Kurahashi, 1986: 430.

DISTRIBUTION. Palaearctic: Japan: Tsushima I.

***Onesia variola* (Chen, 1979)**

*Bellardia variola* Chen, 1979: 385, 390; Schumann, 1986: 15; Chen et al., 1992: 1212; Fan, 1992: 503; Fan et al., 1997: 341, 641.

DISTRIBUTION. Palaearctic: China: Heilongjiang.

***Onesia wolongensis* Chen et Fan, 1992**

*Onesia wolongensis* Chen et Fan, 1992, in: Chen et al., 1992: 1197, 1214; Fan, 1992: 506; Fan et al., 1997: 353, 642.

DISTRIBUTION. Palaearctic: China: Sichuan. Oriental: China: Yunnan.

***Onesia xanthocera* (Malloch, 1927)**

*Calliphora xanthocera* Malloch, 1927: 313.

*Onesia xanthocera*: Kurahashi, 1989: 707.

DISTRIBUTION. Australasian/Oceanian: Australia: New South Wales.

***Onesia zumpti* Schumann, 1964**

*Onesia zumpti* Schumann, 1964: 929; Čepelák, 1986: 257; Schumann, 1986: 33; Draber-Moňko, 1991: 245; Gregor, Rozkošný, 1997: 97; Rognes, 1997: 68; Papp, 2001: 421.

*Onesia austriaca*: Cunu, 1978: 381 (misidentification: not *Onesia austriaca* Villeneuve, 1920: 204). Synonymized by Rognes, 1997: 68.

DISTRIBUTION. Palaearctic: Austria; Germany; Hungary; Poland; Slovakia; Switzerland.

#### ACKNOWLEDGMENTS

I would like to thank the following colleagues and friends for their kindness in searching for material, for placing material in my disposal, for sending of literature and for other invaluable assistance: H. Kurahashi (International Department of Dipterology, Tokyo), K. Rognes (Stavanger University College, Norway), V. Sidorenko (Institute of Biology and Soil Sciences, Vladivostok, Russia).

#### REFERENCES

- Arnaud, P. H., Jr, Owen, T. S. 1981. Charles Howard Curran (1894-1972). – *Myia* (Insect Associates South San Francisco, California) 2: I-VI + 1-393.
- Baranov, N. 1927. Die nach Hypopygiumbau geordneten in Serbien gesammelten Tachinidae. – *Encyclopédie entomologique* (Paris) Ser. B II. Diptera 4: 31-44.
- Baranov, N. 1939. Sechs neue Raupenfliegen aus der Sammlung Takanos. – *Entomologische Nachrichten und Blätter* (Troppau) [1938] 12: 110-112.
- Bezzi, M., Stein, P. 1907. *Cyclorrhapha* Aschiza. *Cyclorrhapha* Schizophora Schizome-topa. – In: Becker, T., Bezzi, M., Kertész, K. & Stein, P. (eds). *Katalog der paläarktischen Dipteren*. Budapest 3: 469-493.

- Čepelák, J. 1986. Calliphoridae. – In: Čepelák, J. (ed.). *Diptera Slovenska 2*. Bratislava: Veda: 253-260, 405-407.
- Chen, Z.-z. 1979. On five new species of the genus *Bellardia* R.-D. (Diptera: Calliphoridae). – *Acta zootaxonomica sinica* 4: 385-391. (In Chinese).
- Chen, Z.-z., Fan, Z.-d., Fang, J. 1992. Diptera: Calliphoridae. – In: *Insects of the Hengduan Mountains Region 2*: 1183-1219 (In Chinese).
- Cunu, R. 1978. Muscidae und Calliphoridae (Insecta: Diptera) der Lägeren (Schweiz: Jura). – *Mitteilungen der schweizerischen entomologischen Gesellschaft* 51: 377-394
- Curran, C. H. 1928. Diptera collected by Prof. and Mrs Cockerell in New Caledonia and Fiji Islands. – *American Museum Novitates* 375: 1-15.
- Draber-Moňko, A. 1991. Calliphoridae. – In: Razowski, J. (ed.). *Checklist of animals of Poland. 2. Parts 25-29. Insecta: Trichoptera-Siphonaptera. Parts 32-43. Chaetognatha-Mammalia*: 244-246.
- Enderlein, G. 1933. Neue paläarktische Calliphoriden, darunter Schneckenparasiten (Dipt.). – *Mitteilungen der deutschen entomologischen Gesellschaft* 4: 120-128.
- Fan, Z.-d. 1992. Calliphoridae. – In: Fan, Z.-d. (ed.). *Key to the Common Flies of China*. 2nd edition. Beijing: Science Press: 457-580, 925-926. (In Chinese).
- Fan, Z.-d., Fang, J., Zheng, S., Chen, Z., Gan, Y., Tao, Z. 1997. Calliphoridae. *Fauna Sinica. Insecta. 6. Diptera*. Beijing: Science Press: XII + 707 pp. (In Chinese).
- Feng, Y. 2003. Four new species of Calliphorini (Diptera: Calliphoridae) from Sichuan, China. – *Jishengchong Yu Yixue Kunchong Xuebao* 10(3): 163-169. (In Chinese).
- González -Mora, D. 1989. Los Calliphoridae de Espaca, II: Calliphorini. – *Eos* 65 (1): 39-59.
- Gregor, F., Rozkošný, R. 1997. Calliphoridae. – In: Chvála, M. (ed.). *Check list of Diptera (Insecta) of the Czech and Slovak Republics*. Prague: Carolinum-Charles University Press: 96-97.
- Grunin, K. Ya. 1970a. 108. [Sem. Calliphoridae]. – In: Bey-Bienko, G. Ya. (ed.). *Opredelitel nasekomykh evropeyskoy chasti SSSR* 5 (2). Leningrad: Nauka: 607-624. (In Russian).
- Grunin, K. Ya. 1970b. Neue Calliphoridenarten für die Fauna der UdSSR (Diptera, Calliphoridae). – *Entomologicheskoe Obozrenie* 49: 471-483. (In Russian).
- Gudjabidze, M. G. 2000. Materials for fauna of Calliphoridae (Diptera, Calliphoridae) of Georgia. – *Proceedings of the Institute of Zoology of Georgian Academy of Sciences* 20: 150-152.
- Jacentkovský, D. 1933. Výskyt vzácných kuklic (Tachinidae) v ČSR. – *Sborník Vysoké školy zemědělské (a lesnické) v Brně. Řada D* 20: 1-7.
- Jacentkovský, D. 1941. Die Raupenfliegen (Tachinoidea) Mährens und Schlesiens. – *Práce Moravské přírodovědecké společnosti* 13 (4) fasc. 129: 1-64.
- James, M. 1977. Family Calliphoridae. – In: Delfinado, M. D. & Hardy, D. E. (eds). *A Catalog of the Diptera of the Oriental Region. 3. Suborder Cyclorhapha (excluding Division Aschiza)*. Honolulu, Hawaii: Bishop Museum Press: 526-556.
- James, M. T., Kurahashi, H. 1976. Blow flies of the genus *Onesia* from the Bismarck Islands (Insecta, Diptera, Calliphoridae). – *Steenstrupia* 4 (3): 401-412.
- Jones, D. L. 1985. The pollination of *Bulbophyllum weinthalii* R. Rogers. – *Victorian Naturalist* 102 (3): 99-101.
- Kano, R., Shinonaga, S. 1968. Calliphoridae (Insecta: Diptera). *Fauna Japonica*. Tokyo: Biogeographical Society of Japan. IX + 181 pp., 23 pls.
- Kano, R., Thinh, T. H., Kurahashi, H. 1999. The flesh-flies (Diptera, Sarcophagidae) from the northern part of Vietnam. – *Bulletin of National Scientific Museum, Tokyo A* 25 (2): 129-141.

- Keilin, D. 1915. Recherches sur les larves de diptères cyclorrhaphes. Cycle évolutif de "*Pollenia rudis* Fabr.", parasite d' "*Allolobophora chlorotica* Sav." - Biologie comparée des larves de diptères. – Bulletin scientifique de la France et Belgique 49: 15-198, 16 pls.
- Kramer, H. 1917. Die Musciden der Oberlausitz. – Abhandlungen der naturforschenden Gesellschaft zu Görlitz 28: 257-352.
- Kurahashi, H. 1964. Studies of the calyprate muscoid flies from Japan. II. Revision of the genera *Melinda* and *Onesia* (Diptera, Calliphoridae). – Kontyû 32 (3): 384-389.
- Kurahashi, H. 1972. The tribe Calliphorini from Australian and Oriental Regions. IV. *Onesia*-group: genus *Polleniopsis* (Diptera: Calliphoridae). - Pacific Insects 14: 709-724.
- Kurahashi, H. 1981. Blow flies from Fiji, with descriptions of three new species of the genus *Onesia* (Diptera: Calliphoridae). – Pacific Insects 23 (3-4): 434-444.
- Kurahashi, H. 1982a. Blow flies from Vanuatu (New Hebrides), with descriptions of three new species of the genus *Onesia* (Diptera: Calliphoridae). – Pacific Insects 24 (3-4): 235-249.
- Kurahashi, H. 1982b. Report on the calyprate muscoid flies collected in the Ozegahara Moor. – Ozegahara: Scientific Researches of the Highmoor in Central Japan: 371-377. (In Japanese).
- Kurahashi, H. 1984. Tribe Calliphorini from Australian and Oriental Regions. VII. A new *Onesia* from Australian and Oriental regions. – International Journal of Entomology 26(4): 351-353.
- Kurahashi, H. 1986. The genus *Onesia* (Diptera, Calliphoridae) from Tsushima, Japan, with description of a new species. – Kontyû 54 (3): 429-432.
- Kurahashi, H. 1987. The Blow flies of New Guinea, Bismarck Archipelago and Bougainville Island (Diptera, Calliphoridae). – Occasional Publications of Entomological Society of Japan 1: I-III + 1-99.
- Kurahashi, H. 1988. A new species of the genus *Onesia* from Mindanao, Philippines (Diptera: Calliphoridae). – Proceedings of the Japanese Society of Systematic Zoology 37: 40-44.
- Kurahashi, H. 1989. 109. Family Calliphoridae. – In: Evenhuis, N. L. (ed.). Catalog of the Diptera of the Australian and Oceanian Regions. Special Publications of Bishop Museum, Honolulu 86: 702-718.
- Kurahashi, H. 1991. Blow flies from Samoa with description of a new species of *Chrysomya* (Diptera: Calliphoridae). – Japanese Journal of Entomology 59 (3): 627-636.
- Kurahashi, H. 1992. Four new species of the Nepalese blow flies (Diptera: Calliphoridae). – Japanese Journal of Entomology 60 (3): 581-592.
- Kurahashi, H. 1994. Notes on the Nepalese calliphorid flies (Diptera, Sarcophagidae). – Japanese Journal of Sanitary Zoology 45, Suppl.: 179-252.
- Kurahashi, H. 2001. The blow flies recorded from Sri Lanka, with descriptions of two new species (Diptera, Calliphoridae). – Japanese Journal of Systematic Entomology 7 (2): 241-254.
- Kurahashi, H., 2003. Blow flies recorded from Irian Java, Indonesia, with description of one new species (Diptera, Calliphoridae). – Japanese Journal of Systematic Entomology 9(1): 127-134.
- Kurahashi, H., Banu, Q. 1989. Notes on the Bangladesh calliphorid flies of medical importance (Insecta: Diptera). – Japanese Journal of Sanitary Zoology 40, Suppl.: 97-111.
- Kurahashi, H., Benjaphong, N., Omar, B. 1997. Blow flies (Insecta: Diptera: Calliphoridae) of Malaysia and Singapore. – The Raffles Bulletin of Zoology. Suppl. 5: 1-88.
- Kurahashi, H., Chohanadisai, L. 2001. Blow flies (Insecta: Diptera: Calliphoridae) from Indochina. – Species Diversity 6: 185-242.

- Kurahashi, H., Fauran, P. 1980. Blow flies from New Caledonia, with description of *Onesia gonideci*, new species (Diptera: Calliphoridae). – Pacific Insects 22 (3-4): 401-412.
- Kurahashi, H., Jayasekera, H. 1989. New species of the genus *Onesia* (Diptera, Calliphoridae) from Sri Lanka. – Japanese Journal of Entomology 57 (2): 391-397.
- Kurahashi, H., Magpayo, F. R. 2000. Blow flies (Insecta: Diptera: Calliphoridae) of the Philippines. – The Raffles Bulletin of Zoology. Suppl. 9: 1-78.
- Kurahashi, H., Miranda, M. E. 1988. A new species of the genus *Onesia* (Diptera: Calliphoridae) from Mindanao, Philippines. – Proceedings of the Japanese Society of Systematic Zoology 37: 40-44.
- Kurahashi, H., Park, S. H. 1972. A new species of the genus *Onesia* from Korea (Diptera: Calliphoridae). – Kontyû 40 (1): 22-24.
- Linnaeus, C. 1758. Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum caracteribus, differentiis, synonymis, locis. 10th ed. Vol. 1. Holmiae [= Stockholm]: L. Salvii. 824 pp.
- Lundbeck, W. 1927. Diptera danica, genera and species of flies hitherto found in Denmark. Part 7. Platypezidae, Tachinidae. Copenhagen: G. E. C. Gad. 560+11 pp.
- Macquart, J. 1934. Insectes diptères du nord de la France. 5. Lille. 232 pp.
- Macquart, J. 1835. Histoire naturelle des insectes. Diptères. Tome deuxième. Ouvrage accompagné de planches. – Suite a Buffon, Paris: Librairie Encyclopedique de Roret [1834]. 703 pp.
- Macquart, J. 1843a. Diptères exotiques nouveaux ou peu connus. Tome deuxième. 3e partie. – Mém. Soc. Roy. des sci. de l'Agric. et des Arts, Lille [1842]: 162-461.
- Macquart, J. 1843b. Diptères exotiques nouveaux ou peu connus. Tome deuxième. 3e partie. – Suite a Buffon, Paris: Librairie Encyclopedique de Roret: 5-304.
- Macquart, J. 1846a. Diptères exotiques nouveaux ou peu connus. Supplément. – Mém. Soc. Roy. des sci. de l'Agric. et des Arts, Lille [1844]: 133-364.
- Macquart, J. 1846b. Diptères exotiques nouveaux ou peu connus. Supplément. Suite a Buffon, Paris: Librairie Encyclopedique de Roret. 238 pp.
- Macquart, J. 1847a. Diptères exotiques nouveaux ou peu connus. 2e supplément. – Mém. Soc. Roy. des sci. de l'Agric. et des Arts, Lille [1846]: 21-120, 6 pls.
- Macquart, J. 1847b. Diptères exotiques nouveaux ou peu connus. 2e supplément. Suite a Buffon, Paris: Librairie Encyclopedique de Roret. 104 pp.
- Macquart, J. 1848a. Diptères exotiques nouveaux ou peu connus. Suite de 2e supplément. – Mém. Soc. Roy. des sci. de l'Agric. et des Arts, Lille (2) [1847]: 161-237, 7 pls.
- Macquart, J. 1848b. Diptères exotiques nouveaux ou peu connus. Suite de 2e supplément. Suite a Buffon, Paris: Librairie Encyclopedique de Roret. 77 pp.
- Kurahashi, H. & Thapa, V. K. 1994. Notes on the Nepalese calliphorid flies (Insecta: Diptera). – Japanese Journal of Sanitary Zoology 45, Suppl.: 179-252.
- Malloch, J. R. 1927. Notes on Australian Diptera. No. XI. – Proceedings of the Linnean Society of New South Wales 52: 299-335.
- Malloch, J. R. 1928. Notes on Australian Diptera. No. XV. – Proceedings of the Linnean Society of New South Wales 53: 319-335.
- Malloch, J. R. 1935. Diptera Calyptratae chiefly from Malaya and North Borneo (Fourth paper). – Journal of Federal Malay State Museum 17: 646-685.
- Martínez -Sanchez, A., Rognes, K., Rojo, S. & Marcos-Garsía, M. A. 2001. First records of blowflies from Andorra (Diptera, Calliphoridae). – Boletín de la Asociación Española de entomología 25 (3-4): 79-94.



- Martínez-Sánchez, A., Rojo, S., Rognes, K., Marcos-Garsía, M. A. 1998. Blow flies of faunistic interest from oak-forest agroecosystems, and a catalogue of Iberian Polleniinae (Diptera: Calliphoridae). – *Boletín de la Asociación Española de entomología* 22(1-2): 171-184.
- Meigen, J. W. 1824. Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten. Vierter Theil. Hamm: Schulz-Wundermann. XII + 428 S.
- Meigen, J. W. 1826. Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten. Fünfter Theil. Hamm: Schulz-Wundermann. XII + 412 S.
- Meigen, J. W. 1830. Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten. Sechster Theil. Hamm: Schulz-Wundermann. XI + 401 + [3] S.
- Mik, J. 1884. Fünf neue österreichische Dipteren. – *Verhandlungen der (k.k.) zoologisch-botanischen Gesellschaft in Vienne* 33 (2) [1883]: 251-262.
- Müller, A. 1922. Über den bau des Penis der Tachinarier und seinen Wert für die Aufstellung des Stammbaumes und die Art diagnose. – *Archiv für Naturgeschichte* 88 A (2): 45-168.
- Norris, K. R. 1991. General biology. – In: Naumann, D. et al. (eds). *The Insects of Australia* Carlton: Melbourne University Press: 68-108.
- Pandellé, L. 1896. Études sur les muscides de France. Ile partie (suite). – *Revue de entomologie* 15: 1-230.
- Papp, L. 2001. Calliphoridae. – Check list of the Diptera of Hungary: 421-424.
- Park, S.-H. 1977. Studies on flies in Korea. 10. Taxonomical studies on calliphorid flies (Diptera). – *Bulletin of Tokyo Medical and Dental University* 24 (3): 189-208.
- Robineau-Desvoidy, J. B. 1830. Essai sur les Myodaires. – *Mém. pres. div. Sav. Acad. R. Sci. Inst. Fr.* 2 (2): 1-813.
- Rognes, K. 1985. A check-list of Norwegian blowflies (Diptera, Calliphoridae). – *Fauna norvegica* (Ser. B) 32: 89-93.
- Rognes, K. 1991. Blowflies (Diptera, Calliphoridae) of Fennoscandia and Denmark. – *Fauna entomologica scandinavica* 24: 1-272.
- Rognes, K. 1997. Additions to the Swiss fauna of blowflies with an analysis of the systematic position of *Calliphora stylifera* (Pokorný, 1889) including a description of the female (Diptera, Calliphoridae). – *Mitteilungen der schweizerischen entomologischen Gesellschaft* 70: 63-70.
- Rognes, K. 1998. Calliphoridae. – In: Merz, B., Bächli, G., Haenni, J.-P. & Conseth, Y. (eds). *Diptera-Checklist. Fauna helvetica* 1: 335-337. Neuchâtel: CSCF and SEG.
- Rohdendorf, B. B. 1926. A trial morphological analysis of the copulatory apparatus of Calliphorinae (Diptera, Tachinidae). – *Zoologicheskij Zhurnal* 6 (1): 83-128. (In Russian).
- Rondani, C. 1862. *Dipterologicae Italicae prodromus. V. Species Italicae ordinis dipterorum in genera characteribus definita, ordinatum collectae, methodo analitica distinctae, et novis vel minus cognitis descriptis. Pars quarta. Muscidae Phasiinae-Dexiinae-Muscinae-Stomoxidinae. Parmae* [Parma]. 239 pp.
- Rudzinski, H.-G. 1992. Zur Unterscheidung der Weibchen von *Onesia austriaca* Villeneuve 1920 und *Onesia kowarzi* Villeneuve 1920 (Diptera, Calliphoridae). – *Entomologische Zeitschrift mit Insektenbörse* 102 (5): 86-90.
- Sabrosky, C. W., Crosskey, R. W. 1970. The type-material of Muscidae, Calliphoridae, and Sarcophagidae described by N. Baranov (Diptera). – *Proceedings of the Entomological Society of Washington* 72 (4): 425-436.
- Schumann, H. 1964. Revision der Gattung *Onesia* Robineau-Desvoidy, 1830 (Diptera: Calliphoridae). – *Beiträge zur Entomologie* 14: 915-936.
- Schumann, H. 1973. Bemerkungen zum Status der Gattungen *Onesia*, *Melinda* and *Bellardia* (Diptera, Calliphoridae). – *Mitteilungen des Zoologische Museums, Berlin* 49: 333-344.

- Schumann, H. 1986. Family Calliphoridae. – In: Soós, Á., Papp, L. (eds). Catalogue of Palaearctic Diptera. 12. Calliphoridae - Sarcophagidae. Budapest: Academy Press: 11-58.
- Schiner, I. R. 1862. Fauna austriaca. Die Fliegen (*Diptera*). Nach der analytischen Methode bearbeitet, mit der Charakteristik sämmlicher europäischer Gattungen, der Beschreibung aller in Deutschland vorkommenden Arten und der Aufzählung aller bisher beschriebene europäischen Arten. Volume I. Wien: Gerold. LXXX + 674 S., 2 Tabl.
- Séguy, E. 1928. Études sur les mouches parasites. Tome I. Conopides, Oestrides et Calliphorines de l'Europe occidentale. Recherches sur la morphologie et la distribution géographique des diptères larves parasites. – Encyclopédie entomologique Sér. A Diptera 9: 1-251.
- Séguy, E. 1941. Études sur les mouches parasites. Tome 2. Calliphorines (suite), sarcophagines et rhinophorides de l'Europe occidentale et meridionale. – Encyclopédie entomologique Sér. A Diptera 21: 1-436.
- Senior-White, R. A., Aubertin, D., Smart, J. 1940. Diptera. Family Calliphoridae. The Fauna of British India, including the remainder of the Oriental region. Vol. 6. London: Taylor & Francis, Ltd. XIII + 288 pp.
- Sing, K. I., Kurahashi, H. & Kano, R. 1979. A preliminary key to the common calliphorid flies of peninsular Malaysia (Insecta: Diptera). – Bulletin of Tokyo Medical and Dental University 26 (1): 5-24.
- Skufyin, 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).
- Stein, P. 1924. Die verbreitetsten Tachiniden Mitteleuropas nach ihren Gattungen und Arten. – Archiv für Naturgeschichte 90 A (6): 1-271.
- Townsend, C. H. T. 1916. Designations of muscoid genotypes, with new genera and species. – Insecutor Inscitiae Menstruus 4: 4-12.
- Townsend, C. H. T. 1935. Manual of myiology in twelve parts. Part II. Muscoid classification and habits. Itaquaquecetuba, Sro Paulo: Charles Townsend & Filhos. 296 pp., 7 pls.
- Townsend, C. H. T. 1937. Manual of myiology in twelve parts. Part V. Muscoid genetic diagnoses and data. Glossinini to Agriini. Itaquaquecetuba, São Paulo: Charles Townsend & Filhos. 232 pp.
- Tumrasvin, W. H., Kurahashi, H., Kano, R. 1979. Studies on medically important flies of Thailand. VII. Report on 42 species of calliphorid flies, including taxonomic keys (Diptera: Calliphoridae). – Bulletin of the Tokyo Medical and Dental University 26: 243-272.
- Verves, Yu. G. 2001. Sarcophagidae and Calliphoridae (Diptera) of Chernivtzi oblast'. – Scientific Reports of the Chernivtzi University. Biology 126: 163-167.
- Verves, Yu. G. 2002. An annotated list of Calliphoridae (Diptera) of the Russian Far East and its neighbouring territories. – Far Eastern Entomologist 116: 1-14.
- Verves, Yu. G. 2004. A review of the "*Ornesia*" generic group (Diptera: Calliphoridae). Part 1. The species of the genera *Polleniopsis* Townsend, *Tainanina* Villeneuve and *Tricycleopsis* Villeneuve. – Far Eastern Entomologist 134: 1-12.
- Villeneuve, J. 1920. Diptères inédits. – Annales de la Société royale entomologique de Belgique 60: 199-205.
- Villeneuve, J. 1926. Espèces nouvelles du genre *Onesia* R. D. (Dipt.). – Konowia 5 (2): 130-133.
- Villeneuve, J. 1928. Quelques mots sur les Calliphorinae paléartiques. – Bulletin et annales de la royale Société entomologique de Belgique 68: 147-151.
- Villeneuve, J. 1936. 52. Diptera. 16. Muscidae. Schwedlisch-chinensische wissenschaftliche Expedition nach den nordwestlichen Provinzen Chinas, unter Leitung von Dr. Sven Hedin und Prof. Sü Pinf-chang. – Arkiv för Zoologi 27 A (34): 1-13, 1 fig.

Walker, F. 1858. Catalogue of the dipterous insects collected in the Aru Islands by Mr. A. R. Wallace, with descriptions of new species [part]. – Journal & Proceedings of Linnean Society of London. Zoology 3: 77-110.

Walker, F. 1860. Characters of undescribed *Diptera* in the collection of W. W. Saunders, Esq., F. R. S. & c. [part]. – Transactions of the Royal Entomological Society of London [2] 5: 236-295.

Wang, C.-j., Lu, Y.-l., Chen, Z.-z. & Fan, Z.-d. 1981. Four new calyptrate flies from Shanxi, China (Diptera: Muscidae, Calliphoridae, Sarcophagidae). – Contributions of the Shanghai Institute of Entomology 2: 253-258. (In Chinese).

Xue, W.-q. & Chao, C. 1996. Flies of China. Vol. 2. Shenyang: Liaoning Science and Technology Press: VII + 1059 pp., 32 pls. (In Chinese).

Ye, Z.-m., Wang, B.-l., Yang, Z.-t. 1985. Description of the female of *Tainanina yangchunensis* Fan et Yao, 1984 (Diptera: Calliphoridae). – Acta zootaxonomica sinica 10 (4): 447-448. (In Chinese).

Zumpt, F. 1956. 64. Calliphorinae. – In: Lindner, E. (ed.) Die Fliegen der paläarktischen Region. Stuttgart 11 (190, 191, 193): 1-140.

## SHORT COMMUNICATION

**V. S. Sidorenko. INTERNATIONAL BIODIVERSITY OBSERVATION YEAR (IBOY): MOSQUITOES (DIPTERA, CULICIDAE) OF THE FOREST ECOSYSTEMS OF PRIMORYE – Far Eastern Entomologist. 2004. N 138: 19-20.**

**В. С. Сидоренко. Международный год изучения биоразнообразия (ИБОУ): кровососущие комары (Diptera, Culicidae) лесных экосистем Приморского края // Дальневосточный энтомолог. 2004. N 138. С. 19-20.**

A one hectare plot have been selected in the vicinity of Kamenushka village on the top of the hill (200m above sea level) on left side of Volkha River (43°36.63' N, 132°14.18' E) in mixed coniferous-broad-leaved forest as a part of the International Biodiversity Observation Year (IBOY) in 2001. Detailed description of plot and collecting method was published [1]. The 33619 specimens of arthropods from 118 samples have been collected totally in plot using 7 trapping methods. Among of them 78 specimens of Culicidae were collected by Light traps (LT), Malaise traps (MT), Window traps (WT), Pitfall traps (PT) and bark spraying (BS). The fauna of mosquitoes of Primorskii krai consists of 53 species from 5 genera [2]. Only 6 species from 2 genera were collected in plot, which consists of 40% of genera and 11.3% of species of the fauna of Primorye. A list of mosquitoes is given below. Present study was supported in part by the grant of Far Eastern Branch of Russian Academy of Sciences (N 04-1-ОБН-100, S.Yu. Storozhenko, principal investigator).

### Family Culicidae

*Aedes (Aedimorphus) vexans nipponi* Theobald, 1907

MATERIAL. Russia: Primorskii krai, Kamenushka, LT-5 (CZ), 23.VIII 2001, 1 ♂; LT-7 (GZ), 25.VIII 2001, 2 ♂; LT-9 (GZ), 27.VIII 2001, 1 ♂; LT-16, (GZ), 31.VIII 2001, 1 ♂.