NEW SPECIES OF THE GENUS *Argyra* Macquart, 1834 (DIPTERA: DOLICHOPODIDAE) FROM THE RUSSIAN FAR EAST AND JAPAN

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Two species of the genus *Argyra* Macquart, 1834 are described from the Russian Far East and Japan. *A. igori* Negrobov, Satô et Selivanova sp. n. is closely related to *A. spoliata* Kowarz, 1879, and *A. zlobini* Negrobov, Satô et Selivanova sp. n. is similar with *A. atriceps* Loew, 1857.

Key words: Dolichopodidae, *Argyra*, new species, Russia, Japan.

INTRODUCTION

Most Palaearctic species of the genus *Argyra* are known from Europe (Negrobov, 1991). The following species of the genus *Argyra* were described from Asian...

This paper is based on the collection of the Zoological Institute of the Russian Academy of Sciences (St.-Petersburg, Russia), Rishiri Town Museum (Japan), and Department of ecology and systematic of invertebrates of the Voronezh State University (Russia). The holotypes of the new species are preserved in Zoological Institute RAS, part of the paratypes – in the collection of the Black-Soil region’s fund of invertebrates (Voronezh State University, Voronezh, Russia) and Rishiri Town Museum (Rishiri, Japan).

**TAXONOMY**

*Argyra igori* Negrobov, Satô et Selivanova, sp. n.

Figs 1–5


**DESCRIPTION.** MALE. Body length: 5.6-6.2 mm. Wings: 5.3-5.5 mm.

Head. Frons and face black. Ratio of face width in the middle and the width of the first flagellomere at the base – 1.0: 1.3. Antennae black, the first flagellomere budlike, slightly pointed at apex. Ratio of the first flagellomere length / its width at
base / arista length – 1,6: 1,3: 7,0. Arista – at the base of the third antennal segment. Proboscis and palpi black-muddy-brown with black bristles and setae. Postocular cilia light. Eyes with short light pruinosity.


Legs. Legs yellow, except for dark coxae, apical third of hind femora and tibiae, hind tarsi wholly dark. Fore coxae with a great number of black bristles and setae anteriorly. Fore femora on posteroventral and inner side with dark setae longer than their diameter. Fore tibiae with 1 anterodorsal, 3 posterodorsal bristles. Anterior basitarsus with row of posteroventral bristles longer than tarsus diameter, with row of strong small posteroventral bristles in apical half. Length ratio of anterior tibia and anterior tarsal segments from the first to fifth – 9,0: 5,5: 1,9: 1,2: 0,9: 1,0. Middle coxae with a great number of black bristles and setae anteriorly. Middle femora on external and anteroventral side with black setae longer than femora diameter. Middle tibiae with 3-4 anterodorsal, 3-4 posterodorsal, 2 anteroventral, 2 posteroventral bristles. Length ratio of middle tibia and middle tarsal segments from the first to the fifth – 13,3: 5,9: 2,5: 1,5: 1,0: 1,0. Hind coxae on the outside with some black setae.
from which 2-3 larger than others. Hind tibiae with anteroventral black setae longer than femora diameter. Hind tibiae with row of strong anterodorsal bristles, 3 posterodorsal bristles. Length ratio of hind tibia and hind tarsal segments from the first to the fifth – 15,9: 5,7: 4,5: 2,7: 1,8: 1,1.

Wings. Wings transparent. Length ratio of costal segment between R \(_{2+3}\) and R \(_{4+5}\) and costal segment between R \(_{4+5}\) and M \(_{1+2}\) – 4,6: 2,2. Apical segments R \(_{4+5}\) and M \(_{1+2}\) slightly sinusoid to the posterior edge of the wing, parallel in apical part of the wing. Length ratio of apical and basal segments M \(_{3+4}\) – 7,4: 15,0. Length ratio of apical segment M \(_{3+4}\) and cross-vein – 7,4: 4,0. Calypters with dark cilia, halters yellow.

Abdomen. Abdomen dark metallic-green with grey pruinosity and black setae. I and II abdomen segments with yellow spots larger on II segment. VIII segment of abdomen with strong bristles.

FEMALE unknown.

ETYMOLOGY. The new species is named after its collector Dr. Igor Shamshev.

DIAGNOSIS. New species is closely related to *Argyra spoliata* Kowarz, 1879, but differs by follows:

1. Length of the anterior basitarsus larger than the 2-d segment anterior tarsus ...

…………………………………………………………………….. *Argyra spoliata* Kowarz

– Length of the anterior basitarsus shorter than the 2-d segment anterior tarsus ....

……………………………………………………*Argyra igori* Negrobov, Satô et Selivanova, sp. n.

*Argyra zlobini* Negrobov, Satô et Selivanova, sp. n.

Figs 6–9


**DESCRIPTION.** MALE. Body length: 3,2-4,6 mm. Wings: 3,2-4,6 mm.

Head. Frons black with silvery-white pollen. Lower part of clypeus with grey pollen. Face black without pollen. Ratio of face width in the middle and width of the first flagellomere at the base – 0,7: 0,6. Palpi muddy-brown. Antennae black, the third antennal segment budlike, slightly pointed at apex. Ratio of the first flagellomere’s length and its width at the base and arista length – 1,1: 0,6: 2,6. Arista at the apex of the third antennal segment. Postocular cilia light.

Legs. Larger part of legs yellow, coxae slightly darkened. Length ratio of anterior tibia and anterior tarsal segments from the first to fifth – 1.9:1.2:0.5:0.3:0.2:0.2. Middle tibiae with 3-4 anterodorsal, 3-4 posterodorsal, 3 anteroventral, 1 ventral, 3 posteroventral bristles. Length ratio of middle tibia and middle tarsal segments from the first to the fifth – 5.5: 3.0:1.1: 0.8: 0.5: 0.5. Length ratio of hind tibia and hind tarsal segments from the first to the fifth – 6.4: 2.3:1.9:1.2: 0.8: 0.5.

Figs. 6–9. *Argyra zlobini* sp. n.: 6 – hypopygium, lateral view; 7 – apical part of hypopygium, lateral view, 8 – hypopygium, ventral view; 9 – antennae, lateral view.

Wings. Wings transparent. Length ratio of costal segment between R 2+3 and R 4+5 and costal segment between R 4+5 and M 1+2 – 2,1:1,8. R 4+5 and M 1+2 parallel in apical part. Length ratio of basal and apical segments M 1+2 – 6.7: 7,1. Length ratio of apical segment M 3-4 and cross-vein– 3,2:1.5. Calypters with dark cilia, halter yellow.

Abdomen. Abdomen metallic-green with dense silvery pollen. VIII segment of abdomen with strong bristles.

FEMALE unknown.

ETYMOLOGY. New species is named in memory of the Russian dipterologist Dr. Vladimir Zlobin.

DIAGNOSIS. New species is closely related to *Argyra atriceps* Loew, 1857, but differs by follows:
1. Femora dark in most parts. Middle femora with long hairs from the outer side, their length larger than diameter of femur. The first segment of hind tarsus about 1.7 times as long as the second ........................................... *Argyra atriceps* Loew

– Femora yellow in most parts. Middle femora without long hairs. The first segment of hind tarsus about 1.3 times as long as the second …………………………

*Argyra zlobini* Negrobov, Satô et Selivanova, sp. n.

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SHORT COMMUNICATION


Summary. Five Stizoides species of the fauna of Russia and neighboring countries are reviewed. A key to the species is provided.

Key words: Digger wasps, Hymenoptera, Crabronidae, Bembicinae, Stizoides, Russia.


Резюме. Дается обзор 5 видов рода Stizoides фауны России и сопредельных стран. Приводится оригинальная определительная таблица видов.

INTRODUCTION

Stizoides Guérin-Méneville, 1844 is a not numerous digger wasp genus included 30 species which inhabit all continents except Oriental, Australian, and Neotropical regions (Pulawski, 2012). The species of Stizoides are cleptoparasites in the nests of Orthoptera-hunting digger wasps of the genera Sphex Linnaeus, 1758, Palmodes Kohl, 1890, Prionyx Vander Linden, 1827 (Sphecidae), and Stizus Latreille, 1802 (Crabronidae) (Bohart & Menke, 1976; Ohl, 1999).

This genus was not especially studied in Russia, but there are species keys of European part of USSR (Pulawski, 1978), Kazakhstan and Middle Asia (Kazenas, 1978), and worldwide fauna (Ohl, 1999). The material used in this study is from the collections of Zoological Institute of Russian Academy of Sciences (St-Petersburg) and Institute of Biology and Soil Science of Russian Academy of Sciences (Vladivostok).

Genus Stizoides Guérin-Méneville, 1844

Stizoides Guérin-Méneville, 1844: 438 (as subgenus of Stizus). Type species: Larra fasciata Fabricius, 1798, junior secondary homonym of Stizus fasciatus (Fabricius, 1798) (= Sphex assimilis Fabricius, 1787), designated by J. Parker, 1929: 10.

Five species known in Russia and neighboring countries are included in the key.

Key to the species

1. Forewing base hyaline. Sternite II with macropunctures sparser medially than laterally, basomedially with densely pubescent micropunctate patch. 10.0–23.0 mm ……………….
   – Forewing base infumate. Sternite II with regular macropunctures, without pubescent patch .......................................................... S. assimilis (Fabricius)
   2. Antennal base and legs black .......................................................... 3
      – Antennal base and legs for the most part reddish-yellow ........................................... 4

8
3. Forewing uniformly infumate. 12.0–22.0 mm .......... *S. melanopterus* (Dahlbom)
   – Forewing apex with broad hyaline area. 11.5–21.0 mm .......... *S. tridentatus* (Fabricius)
4. All tergites yellow or with broad yellow band. 12.5–16.0 mm ..............................................
   – Only tergites I-III yellow, remaining tergites black. 8.5–19.5 mm ........................................

**List of the species**

*Sitzoides assimilis* (Fabricius, 1787)


MATERIAL. Tajikistan: 1 ♀, 1 ♂, Aivadzh, outfall of Kafirnigan River, 30.VII 1934 (Gussakovskij).

DISTRIBUTION. Israel, Palestine, Saudi Arabia, Yemen, UAE, Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Pakistan, India, Nepal, Morocco, Algeria, Egypt, Mauritania, Senegal, Mali, Sudan.

*Sitzoides crassicornis* (Fabricius, 1787)


MATERIAL. Turkmenistan: 1 ♀, 4 ♂, Imam-Baba, 1932 (without other data) (Shchestakov).

DISTRIBUTION. France, Spain, Italy, Greece, Cyprus, Ukraine (Crimea), Turkey, Israel, Palestine, Russia (Saratov, Volgograd, and Astrakhan regions), Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Algeria, Tunisia, Egypt.

*Sitzoides cyanopterus* (Gussakovskij, 1928)


MATERIAL. Turkmenistan: 1 ♂, Akchea-Kuima, 6.VI 1988 (Lelej).

DISTRIBUTION. Georgia, Uzbekistan, Turkmenistan, Iran.
**Stizoides melanopterus** (Dahlbom, 1845)


**MATERIAL.** Turkmenistan: 1 ♂, Kerki, 15.VI 1933 (Ushchinskii).

**DISTRIBUTION.** Croatia, Greece, Ukraine (Crimea), Turkey, Lebanon, Israel, Palestine, Russia (Volgograd region), Armenia, Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, Iraq.

**Stizoides tridentatus** (Fabricius, 1775)


**MATERIAL.** Azerbaijan: 1 ♂, Altan, 30.VI 1927 (Zapolskii).

**DISTRIBUTION.** France, Portugal, Spain, Switzerland, Italy (including Sicilia and Sar- dinia), Croatia, Serbia, Macedonia, Albania, Greece (including Crete), Hungary, Romania, Bulgaria, Cyprus, Ukraine, Turkey, Israel, Russia (Volgograd, Rostov, Astrakhan, and Orenburg regions), Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Mongolia, Morocco, Algeria, Tunisia, Libya, Egypt.

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SHORT COMMUNICATION


Summary. Scathophaga helenae (Thomson, 1869) is a new junior synonym of Scathophaga soror (Wiedemann, 1818).

Key words: Diptera, Scathophagidae, Scathophaga, new synonym, Afrotropical region.

INTRODUCTION

The family Scathophagidae in the Afrotropical region was reviewed by Ozerov whilst preparing a chapter on the Scathophagidae for the forthcoming Manual of Afrotropical Diptera (Ozerov, 2010). Five species in the genus Scathophaga Meigen, 1803 were recorded and a key to the species was provided. However, the status of Scathophaga helenae (Thomson, 1869) is in need of clarification. The purpose of this paper is the solution of this question.

S. helenae was described from both sexes, number not stated; all specimens from St. Helena Island. There are five syntypes in Naturhistoriska Riksmuseet, Stockholm, Sweden (NHRS), 2 males and 3 females. These syntypes were studied in 1954 by Dr. J.R. Vockeroth, and he designated lectotype, but this designation was not published.

Due to the help of Dr. Yngve Brodin (NHRS) I got all necessary information about these syntypes, including photos of one of males, which I designate below as lectotype of S. helenae. The second male was sent to me by post, its genitalia were studied.

TAXONOMY

Scathophaga soror (Wiedemann, 1818)

Scathophaga soror Wiedemann, 1818: 46.

NOTES. Male syntype which I has labelled and designate herewith as lectotype of Scathophaga helenae was studied by me on photos (Fig. 1). This specimen is pinned, in very good condition. When enlarged it demonstrated scutellum with 3 pairs of strong setae and well developed prescutellar acrostical setae (Fig. 2). According to the information given by Y. Brodin, this specimen with number No NHRS-BYWS000000651 has the following labels: (1) St. Helena, (2) Kinb., (3) Typus, (4) Scathophaga helenae lectotype designated by J.R. Vockeroth 19, (5) Scathophaga helenae Thoms.
The second male syntype was sent to me by post for the examination of genitalia; it has been labelled as paralectotype. This male labelled (1) St. Helena., (2) Kinb., (3) *Scatophaga helenae* Thoms. Paralectotype labelled 1954 by J.R. Vockeroth, (4) NHRS-BYWS 000000608. It is pinned, but is not in good condition as lectotype (see above): scutellum and right wing almost completely destroyed, legs are deformed; abdomen cut and kept in plastic tube with glycerol on separate pin. This pin with tube has a label with the same number ["NHRS-BYWS 000000608"] as the pin with the specimen.

Figs 1–4. *Scatophaga helenae* Thomson, 1869, male. 1, 2 – lectotype (photo by Y. Brodin); 3, 4 – paralectotype: 1 – adult, dorsal view; 2 – scutellum; 3 – sternites 4 (below) and 5 (above); 4 – epandrium and surstyli.
According to information, given by Y. Brodin, all the remaining syntypes of *S. helenae* (NHRS-BYWS000000607, 609 and 610) are females and labeled "St. Helena" and labelled as paralectotypes by J.R. Vockerot in 1954, lack the label "Kinb."; all not studied by me, but formally have been labelled as paralectotypes.

Examination of the scutellum (Fig. 2), male sternites 4 and 5 (Fig. 3) and male genitalia (Fig. 4) revealed unambiguously that this species is specifically identical with *Scathophaga soror* (Wiedemann, 1818) (see Ozerov, 2010). Accordingly I herewith synonymise *helenae* with *Scathophaga soror* (Wiedemann, 1818), **syn. n.**

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