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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.

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С Дальнего Востока России и из Японии описаны два новых вида рода *Argyra* Macquart, 1834. *A. igori* Negrobov, Satô, et Selivanova sp. n. близок к *A. spoliata* Kowarz, 1879, а *A. zlobini* Negrobov, Satô et Selivanova sp. n. – к *A. atriceps* Loew, 1857.

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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

part of the Palaearctic Region: *A. flava* Negrobov, 1973 and *A. ussuriana* Negrobov, 1973 from the Russian Far East (Negrobov, 1973), *A. arrogans* Takagi, 1960 and *A. superba* Takagi, 1960 from Japan (Takagi, 1960), *A. (Leucostola) negrobovi* Grichanov et Shamshev, 1993 from Khabarovskii krai (Grichanov & Shamshev, 1993), *A. sinensis* Yang et Grootaert, 1999, *A. serrata* Yang et Saigusa, 2002 and *A. xiaolongmensis* Wang et Yang, 2011 from Palaearctic part of China (Yang & Grootaert, 1999; Yang & Saigusa, 2002; Yang et al., 2011), *A. pulata* Negrobov et Maslova, 2003 from Ural (Negrobov & Maslova, 2003), *A. xanthopyga* Negrobov et Grishanov, 2006 from Tajikistan and Kyrgyzstan (Negrobov & Grishanov, 2006), *A. shamshevi* Selivanova et Negrobov, 2006 and *A. sviridovi* Selivanova et Negrobov, 2006 from Primorskii krai (Selivanova & Negrobov, 2006), *A. hokkaidoensis* Negrobov et Sato, 2009 and *A. takagii* Negrobov et Sato, 2009 from the Russian Far East and Japan (Negrobov & Sato, 2009), *A. badjaginae* Negrobov et Maslova, 2003 from Kazakhstan (Negrobov & Maslova, 2003), *A. gorodkovi* Selivanova et Negrobov, 2008 from Kyrgyzstan (Selivanova & Negrobov, 2008), and *A. bikeliana* Negrobov, Barkalov et Selivanova, 2010 from Altaj (Negrobov, Barkalov & Selivanova, 2010). Last key to species of this genus were given in the study by O. Parent (1938).

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

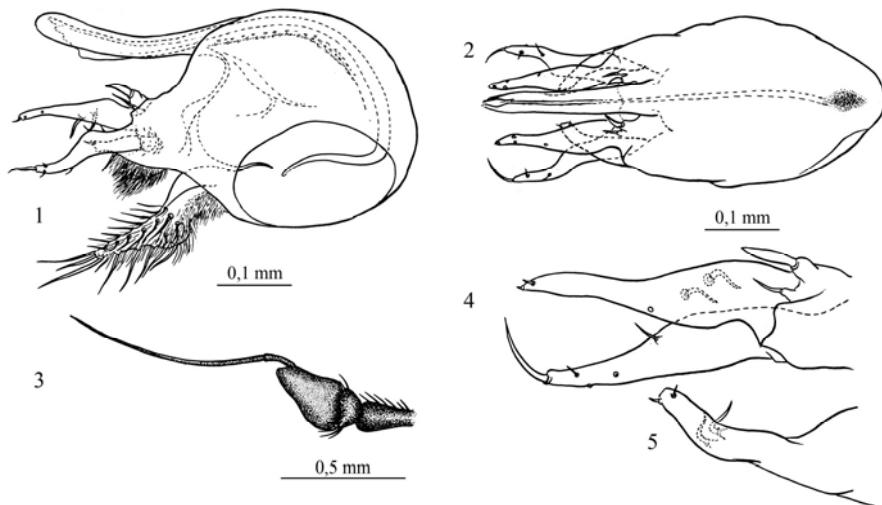
TYPE MATERIAL. Holotype – ♂, **Russia**: Sakhalin Island, 29 km S-W from Yuzhno-Sakhalinsk, near settlement Urozhaynoe, 13.VII 1982 (Shamshev). Paratypes: Russia: 5 ♂, Sakhalin, 29 km S-W from Yuzhno-Sakhalinsk, near settlement Urozhaynoe, 13.VII 1982 (Shamshev); 1 ♂, Sakhalin, 29 km S-W from Yuzhno-Sakhalinsk, near settlement Urozhaynoe, 3.VII 1973 (Logvinovskij); 1 ♂, Sakhalin, 41 km S from Yuzhno-Sakhalinsk, Pokrovka, 8.VII 1982 (Shamshev); 1 ♂, Sakhalin, 50 km SW from Yuzhno-Sakhalinsk, Starodubskoe, 7.VII 1982 (Shamshev); 1 ♂, Primorskii krai, «Kedrovaya Pad» Nature Reserve, 5.VII 1963 (Negrobov). **Japan**: 1 ♂, Hokkaido, Horonobe, Kami-toi-kan, Iwanano-sawa, 12-25.VII 1993, Malaise trap (Inoue).

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.

Thorax. Mesonotum dark-metallic-green, with bronze shine anteriorly, without silvery-white taint. Pleurae dark green with silvery-grey pollen. Propleurae with 3 light setae beneath. 6 pairs of strong dorsocentral bristles. Acrostichal bristles well-developed, biserial. Scutellum with 4 strong marginal bristles, without hairs from above.



Figs. 1–5. *Argyra igori* sp. n.: 1 – hypopygium, lateral view, 2 – the same, ventral view; 3 – antennae, lateral view; 4 – ventral and dorsal lobi of gonopod, ventral view; 5 – medial lobi of gonopod, ventral view.

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 postero-dorsal 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

TYPE MATERIAL. Holotype – ♂, **Russia**: Sakhalin Island, Anivskii district, right bank of Lyutoga River, 13.VII 1973 (Logvinovskij). Paratypes: 3 ♂, Sakhalin, Anivskii district, settlement Urozhaynoe, 13-14.VII 1973 (Zlobin, Logvinovskij); 2 ♂, Sakhalin, Novoaleksandrovka near Yuzho-Sakhalinsk (Zlobin, Logvinovskij); 2 ♂, Sakhalin, 41 km from Yuzhno-Sakhalinsk, Pokrovka, 8.VII 1982 (Shamshev); 1 ♂, Primorskii krai, «Kedrovaya Pad» Nature Reserve, 17.VII 1983 (Shamshev).

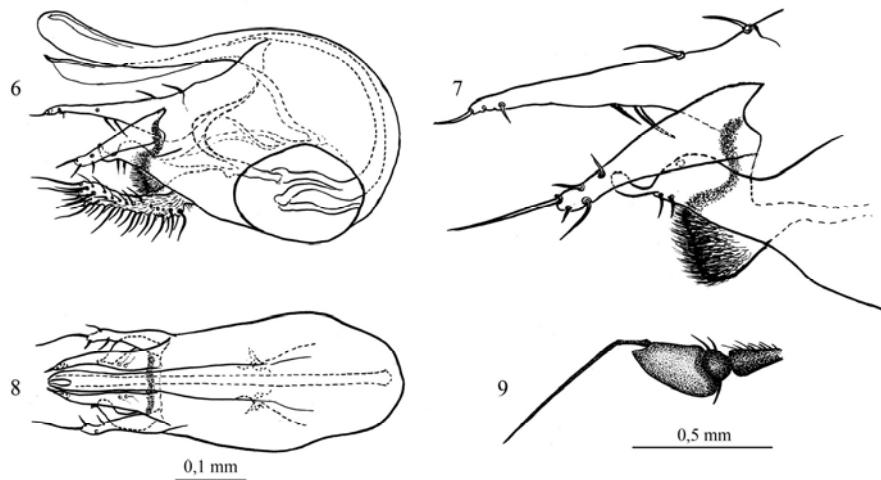
Japan: 2 ♂, Hokkaido, Iwana-no-sawa, Kamitoikan, Horonobe, 26.VI- 2.VII 1993, Malaise trap (M. Inoue); 1 ♂, Hokkaido, Nuppuku River, Obihiro, 18-19.VI 1998, Malaise trap (K. Umemura).

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.

Thorax. Thorax metallic-green. Mesonotum with silvery pollen. Pleurae with silvery pollen. Propleurae with black bristles and group of black setae. 4 pairs of strong dorsocentral bristles. Acrostichal bristles well developed. Scutellum with 6 marginal bristles, without supplementary setae.

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, halters 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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