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TAXONOMIC NOTES ON THE SPECIES OF GENUS *ARACHNOSPILA* KINCAID, 1900 (HYMENOPTERA, POMPILIDAE)

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The lectotypes of *Pompilus subvittatus* Morawitz, 1889 and *Pompilus asiaticus* Morawitz, 1888 are designated and redescribed. A new synonymy is proposed: *Arachnospila (Ammosphex) subvittata* (Morawitz, 1889), **comb. n.** = *Arachnospila (Ammosphex) nagasei* (Ishikawa, 1966), **syn. n.** The status of *A. (Anoplochaeres) usurata* (Blüthgen, 1957) is reinstated.

KEY WORDS: Spider wasps, *Arachnospila*, lectotypification, new synonymy.

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Обозначены и переописаны лектотипы *Pompilus subvittatus* Morawitz, 1889 и *Pompilus asiaticus* Morawitz, 1888. Предложена новая синонимия: *Arachnospila (Ammosphex) subvittata* (Morawitz, 1889), **comb. n.** = *Arachnospila (Ammosphex) nagasei* (Ishikawa, 1966), **syn. n.** Восстановлен статус *A. (Anoplochaeres) usurata* (Blüthgen, 1957), **stat. resurr.**

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INTRODUCTION

The genus *Arachnospila* Kincaid, 1900 numbers 35 species from six subgenera in Europe (Wahis, 2010) and 29 species from three subgenera in Russia (Tobias, 1978; Lelej, 1995, 2000).

The current paper based on more than 1300 specimens of *Arachnospila* deposited in the collection of the Institute of Biology and Soil Science (Vladivostok, Russia). We studied the type material of *Pompilus subvittatus* Morawitz and *P. asiaticus* Morawitz (Zoological Institute, St. Petersburg, Russia) also. We have used the abbreviations POD, to denote the postocellar (interocellar) distance between posterior ocelli which is measured from above, and OOD, to denote the ocellocular distance between posterior ocellus and compound eye which is measured above, and acronyms for the collectors: AL – A.S. Lelej, PN – P.G. Nemkov, SB – S.A. Belokobylskij.

TAXONOMIC NOTES

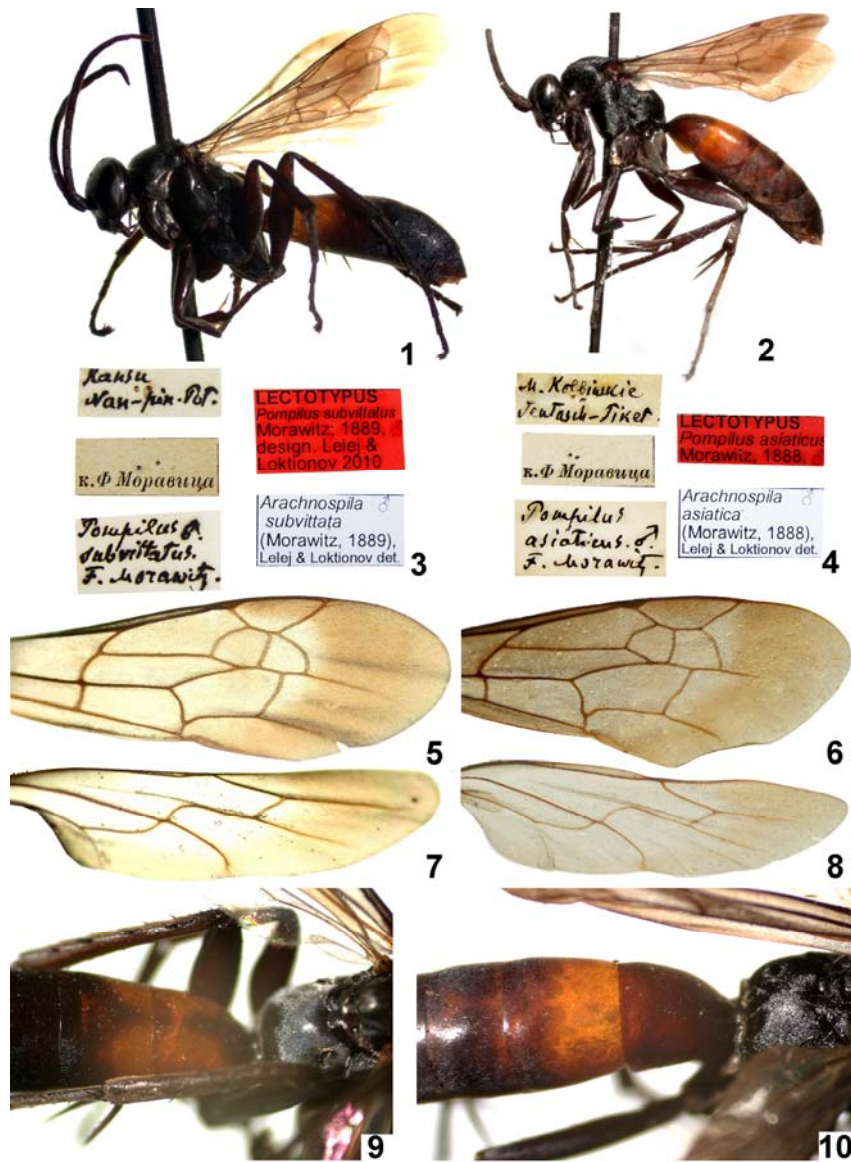
Arachnospila (Ammosphex) subvittata (Morawitz, 1889), comb. n.

Figs 1, 3, 5, 7, 9, 11, 14

Pompilus subvittatus Morawitz, 1889: 118, ♂ [lectotype, designated here – ♂, “Kansu, Nanchin, Pot[anin]”(Prov. Gansu, China) (Zoological Institute, St. Petersburg, Russia); examined].

Pompilus (Ammosphex) nagasei Ishikawa, 1966: 85, ♀ [holotype – ♀, “Kamakura, Kanagawa Pref., 7.IV 1954 (H. Nagase)” (Honshu, Japan) (National Science Museum, Tokyo, Japan), examined by ASL], **syn. n.**; Lelej, Yamane, 1992: 106, ♀ ♂; Lelej et al., 1994: 142, ♂; Lelej, 1995: 246, ♂; 2000: 623; Shimizu, 1996: 510.

REDESCRIPTION OF LECTOTYPE (MALE). Body length 8.1 mm. Forewing length 5.9 mm. Head width 1.1X its height. Frons evenly convex. Ocelli small, POD : OOD 0.9X. Ratio of genal median length to eye median length (lateral view) 0.5X. Malar space length 0.4X pedicel width. Clypeus weakly longitudinally convex with straight anterior border. Labrum flat with weakly emarginated anterior border. Mandible tridentate (middle tooth not distinct). Flagellomere 1 length 2.1X its width. Relation of scape, pedicel and two first flagellomeres 29 : 14 : 25 : 30. Mesosoma length dorsally 1.7X its width. Pronotum length 0.4X its width, posterior pronotal border angulate. Metanotum median length 1.2X metapostnotum median length. Metapostnotum with gentle transversal striate posteriorly, and coarse transversal striate anteriorly. Propodeum evenly convex, median length 0.8X its maximum width. Inner side of tarsomere 5 of fore pretarsus weakly emarginated latero-apically. Fore claws bifid, asymmetrical, mid and hind claws symmetrical with additional inner tooth. Forewings slightly infuscate with apical fascia. Venation as in Figs 5, 7. Pterostigma small. Second abscissa of radial vein 2.8X longer than third abscissa of radial vein. Genitalia and hypopygium as in Figs 11, 14.



Figs 1–10. *Arachnospila* (male). 1, 3, 5, 7, 9) *A. subvittata*, lectotype; 2, 4, 6, 8, 10) *A. asiatica*, lectotype. 1, 2) male, lateral view; 3, 4) labels; 5, 6) fore wing; 7, 8) hind wing; 9, 10) propodeum and basal metasomal segments, dorso-lateral view.

Frons with a few scattered long erect dark-brownish setae. Gena and propleura with scattered long erect brown setae. Mandible with 2–3 strong and a few soft setae. Lower part of face, clypeus, mesopleuron and metapleuron, propodeum, coxae posteriorly with silver pubescence. Frons, mesosoma dorsally, legs, metasoma with pale-brownish pubescence. Body regularly micropunctate. Metasoma matt. Body and legs black, small yellowish spot on outer eye orbit preapically, mandible black basally and brownish apically, metanotum basally as in Fig. 9.

SPECIMENS EXAMINED. **Russia:** *Khabarovskii krai:* Machtovaya River, 6.VIII 2005, 1 ♂ (AL); *Amurskaya oblast:* Khinganskii Reserve, 1.VII 1989, 1 ♂ (PN); Semenovka, 5.VII 1975, 1 ♂ (AL); 5 km N of Saskal, 13.VIII 1982, 2 ♂ (AL); *Jewish autonomous oblast:* Radde, 13.VII 2003 (SB); Ekaterino-Nikolskoe, 17.VI 2005, 1 ♂ (Proshchalykin); *Primorskii krai:* 20 km S Slavyanka, 4.VI 1979, 1 ♂, 1 ♀ (SB); 5 km E Zarubino, 26.VI, 17.VIII 1987, 1.VIII 1990, 3 ♂ (AL); Kedrovaya Pad, 5.VI 1997, 1 ♂ (AL); 10 km S of Lyalichi, 12.VIII 1980, 1 ♀ (AL); Anisimovka, 20.VI 1975, 11.VII 1984, 7.VIII 1993, 30.V 1994, 15.VI 1997, 6 ♂ (AL, SB); Lazovskii Natural Reserve, 20–21.VII 2006, 2 ♂ (PN, Sidorenko); Lazo, 20.VII 2007, 1 ♂ (Sundukov); 15 km NNW of Margaritovka, 14.VI 1986, 4 ♂ (AL); Brovnichi, 7.VI 1994, 1 ♂ (AL); Nesterovka, 5.VII 1986, 1 ♂ (AL); Barabash-Lavada, 26, 29.VI 1978, 6, 8.VI 1980, 1 ♀, 5 ♂ (AL); 20 km W of Kamen-Rybolov, 8.IX 1978, 1 ♂ (AL); Novokachalinsk, 17, 29.VIII 1977, 22.VII 1995, 4 ♂ (AL, SB); Evseevka, 28.VI 1985, 9.VI 1989, 2 ♂ (AL, SB); Spassk, 7.VI 1989, 2 ♂ (SB); Samarka, 29.V 1993, 1 ♂ (SB); *Kuril Islands:* Kunashir Is., Yuzhno-Kurilsk, 3–28.VIII 1980, 1 ♀, 1 ♂ (AL); Dubovoe, 31.VII 1989, 1 ♀, 1 ♂ (AL); the same place, 8.VIII 1980, 1 ♂ (PN, Sidorenko); *Irkutskaya oblast:* Angarsk, 12.VI–21.VII 1983, 2 ♀, 4 ♂ (PN). **Japan:** Kyushu, Kumamoto Pref., Gokanoshô, Shiratori-yama, 1300 m, 8.VIII 1991, 1 ♀, 1 ♂ (AL) (the female is compared with the holotype of *Pompilus nagasei* by ASL).

DISTRIBUTION. Russia: Khabarovskii krai (first record), Amurskaya oblast, Jewish autonomous oblast (first record), Primorskii krai, Kunashir Is., Irkutskaya oblast; Japan (Honshu, Kyushu), Republic of Korea, China (Gansu).

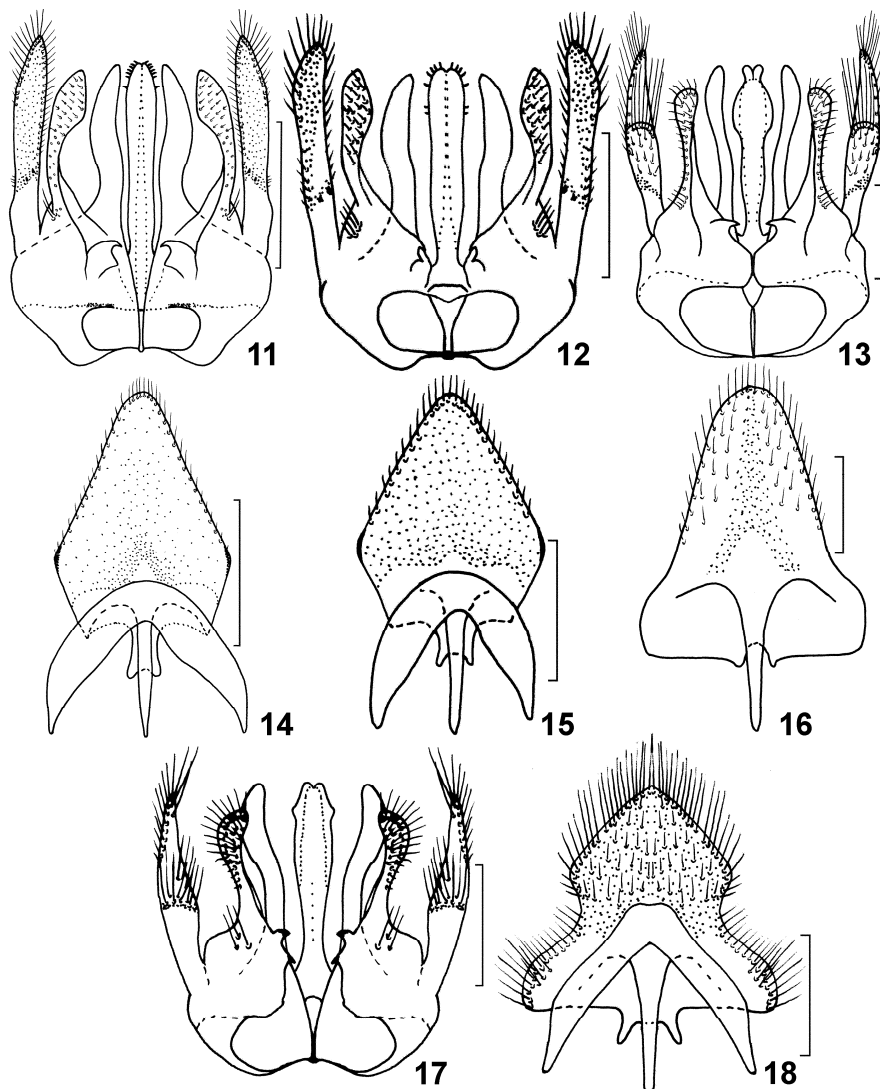
REMARKS. We did not sure that male of *Pompilus subvittatus* Morawitz in the type series is unique and designate it as lectotype. After detail study of lectotype including genitalia and hypopygium we found that it is similar with male of *Pompilus nagasei* Ishikawa from Japan and Primorskii krai (Figs 11, 14 vs 12, 15). We consider *P. (A.) nagasei* Ishikawa, 1966 as junior subjective synonym of *Pompilus subvittatus* Morawitz, 1889.

Arachnospila (Anoplochaeres) asiatica (Morawitz, 1888)

Figs 2, 4, 6, 8, 10, 13, 16

Pompilus asiaticus Morawitz, 1888: 274, ♂ [lectotype, designated here, mentioned by Lelej, 1995 as holotype – ♂, “M[ount] Kolbinskie Sentasch–Piket” (Sentash, Kalbinskii Mountain Ridge, East-Kazakhstan oblast, Kazakhstan) (Zoological Institute, St. Petersburg, Russia); examined].

REDESCRIPTION OF LECTOTYPE (MALE). Body length 13.2 mm. Forewing length 9.2 mm. Head width 1.1X its height. Frons evenly convex. Ocelli small, ratio POD : OOD 1.1X. Ratio of genal median length to eye median length (lateral view)



Figs 11–18. *Arachnospila* (male). 11, 12, 14, 15) *A. subvittata* (11, 14 – lectotype; 12, 15 – Primorskii krai); 13, 16) *A. asiatica*, lectotype; 17, 18) *A. usurata*. 11–13, 17) genitalia, ventral view; 14, 15, 18) sterna 7 and 8 (hypopygium), ventral view; 16) sternum 8 (hypopygium). Scale bar 0.5 mm.

0.5X. Malar space length 0.3X pedicel width. Clypeus weakly longitudinally convex with weakly arcuate emarginated anterior border. Labrum flat with roundish anterior border. Flagellomere 1 length 2.0X its width. Relation of scape, pedicel and two first flagellomeres 47 : 25 : 42 : 45. Mesosoma length dorsally 1.5X its width. Pronotum length 0.3X its width, posterior pronotal border angulate. Metanotum median length 2.1X metapostnotum median length. Metapostnotum shiny transversally striated with middle smooth triangular on posterior border. Propodeum evenly convex, median length 1.33X its maximum width. Inner side of tarsomere 5 of fore pretarsus weakly emarginated latero-apically. Fore claws bifid, asymmetrical, mid and hind claws symmetrical with additional little inner tooth. Forewings slightly infuscate with apical fascia. Venation as in Figs 6, 8. Pterostigma small. Second abscissa of radial vein equal third abscissa of radial vein. Genitalia and hypopygium as in Figs 13, 16.

Frons, supraclypeal area, clypeus, gena, propleura, fore coxa posteriorly, with long erect brownish setae. Mandible with two strong and a few soft setae. Pronotum with sparse short erect setae. Lower part of face with silver pubescence. Body regularly micropunctate, clypeus with scattered strong points. Metasoma matt. Body and legs black, mandible black basally and dark brownish apically, basal half of tergum 2 and basal rim on tergum 3 ferruginous-red (Fig. 10).

FEMALE. Unknown.

SPECIMENS EXAMINED. Lectotype only.

DISTRIBUTION. Eastern Kazakhstan.

REMARKS. We did not sure that male of *Pompilus asiaticus* Morawitz, 1888 in the type series (mentioned as holotype by Lelej, 1995) is unique and designate it as lectotype.

Arachnospila (Anoplochares) usurata (Blüthgen, 1957), stat. resurr.

Figs 17, 18

Pompilus (Anoplochares) usuratus Blüthgen, 1957: 80, ♀ ♂ [holotype – ♂, “Marburg, 25.VII 1949 (H. Wolf)” (Germany)]. Junior subjective synonym of *Pompilus asiaticus* Morawitz, 1888 according to Lelej, 1995: 240.

Arachnospila (Anoplochares) usurata: Wolf, 1972: 114, ♀ ♂; Tobias, 1978: 132, ♀ ♂; Wahis, 1986: 22.

Arachnospila (Anoplochares) asiatica (nec Morawitz, 1888): Lelej, 1995: 240, ♀ ♂; Wolf & Sorg, 2007: 47, ♀; Wiśniowski, 2009: 195, ♀ ♂; Schmid-Egger, 2010: 73; Wahis, 2010.

SPECIMENS EXAMINED. **Russia:** *Khabarovskii krai*: 15 km SW of Elabuga, 2.VIII 1975, 1 ♀ (Kurzenko); Komsomolsk-na-Amure, 25.VI 1986, 1 ♀ (Mutin); Gornoe, 19.VII 1989, 1 ♂ (Mutin); *Primorskii krai*: 5 km E of Zarubino, 26.VI, 17.VIII 1987, 1 ♀, 2 ♂ (AL); Sukhanovka, 18.VIII 1987, 1 ♂ (AL); Novogeorgievka, 2.IX 1983, 1 ♀ (AL); Barabash-Levada, 6.VI 1980, 8.VII 1986, 1 ♀, 1 ♂ (AL); 20 km W of Kamen-Rybolov, 8.IX 1978, 1 ♀ (AL); Novoselishshe, 13.VI 1977, 1 ♂ (AL); Novokachalinsk, 25.VI 1977, 22.VII 1995, 3 ♂ (AL); the same place, 14, 15, 17.VIII 1977, 5 ♀ (AL); Anisimovka, 14.VIII 1974, 19.VI 1975, 27.VI 1997, 3 ♂ (AL).

DISTRIBUTION. Russia: Khabarovskii krai, Primorskii krai, European part; Ukraine, Western Europe, Kazakhstan, Mongolia.

REMARKS. *Pompilus (Anoplochares) usuratus* was synonymised with *Pompilus asiaticus* Morawitz, 1888 by Lelej (1995) based on the external morphological characters of the lectotype *P. asiaticus* and misidentified male of *P. usuratus* which has the same upper label as lectotype of *P. asiaticus*. During this work we extruded and studied the genitalia and hypopygium of the lectotype *P. asiaticus* which differs from the ones of *P. usuratus* Blüthgen, 1957 (Figs 13, 16 vs. 17, 18). We reinstate here the status of the latter.

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