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## New and little-known species of *Arachnospila* (subgenus *Ammosphex*) (Hymenoptera: Pompilidae) from East Siberia

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### Abstract

Seventeen species are listed. Five new species: *Arachnospila* (*Ammosphex*) *kasparyani* sp. nov. (Tuva), *A. (A.) maxim* sp. nov. (Tuva, Khakassia), *A. (A.) moczari* sp. nov. (Tuva), *A. (A.) scythia* sp. nov. (Tuva), *A. (A.) sibirica* sp. nov. (Tuva, Republic of Altai) are described and illustrated. *Arachnospila* (*Ammosphex*) *eoabnormis* Lelej, 1995, *A. (A.) orientausa* Loktionov & Lelej, 2011, and *A. (A.) mongolopinata* Wolf, 1981 are newly recorded from East Siberia. The distribution of eight species in East Siberia is enlarged. The revised key of 24 species in males from East Siberia and Russian Far East is given.

**Key words:** Pompilidae, spider wasps, East Siberia, new species

### Introduction

East Siberia is the part of Siberia found between the Yenisei River in the West and dividing ranges along the Pacific Ocean in the East and between the Arctic Ocean in the North and Transbaikalia in the South. Most of this vast territory is occupied by the Euro-Siberian Subregion of the Palaearctic Region.

The genus *Arachnospila* Kincaid, 1900 is predominantly Holarctic. In Europe the genus has 35 species in six subgenera (Wahis 2011). Thirty-eight congeners (including new ones described here), which are placed in the subgenera *Ammosphex* Wilcke, 1942, *Alpinopompilus* Wolf, 1965, *Anoplochaes* Banks, 1939, and *Arachnospila* s. str., are distributed in Russia. Recently we reviewed 19 species of the subgenus *Ammosphex* Wilcke, 1942 from the Russian Far East and East Siberia (Loktionov & Lelej 2011). During the field survey in 2012–2014 we collected more than 3200 specimens of spider wasps in the South of East Siberia (Fig. 1). Of these, 450 specimens belong to the subgenus *Ammosphex*. In this paper, we review 17 species of the subgenus *Ammosphex*; five of them are described as new and three are newly recorded from East Siberia. The distribution of nine species in East Siberia is shown to be more extensive. Species of the subgenus *Ammosphex* are the most abundant *Arachnospila* collected and are the most difficult to identify. The males are more recognizable than the females, but for a reliable identification the subgenital plate (hypopygium) and genitalia of the male should be examined. The revised key in males of 24 species from East Siberia and Russian Far East is given. The including of *Arachnospila minutula* (Dahlbom) in the subgenus *Ammosphex* (Bagirov 2014) is considered to be based on the *lapsus calami*. This species belongs to the subgenus *Anoplochaes* Banks, 1939 (Tobias 1978, Loktionov & Lelej 2014).

### Material and methods

This paper is based on the examination of 450 specimens of the subgenus *Ammosphex* collected in 2012–2014 in the south part of East Siberia (Krasnoyarsk Terr., Khakassia and Tuva), which is currently housed in the Institute of Biology and Soil Science, Vladivostok, Russia [IBSS]. The holotypes and paratypes of new species described here are deposited in IBSS, part of paratypes in Zoological Institute, St. Petersburg, Russia [ZISP].

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## References

- Bagirov, R.T.-o. (2014) New data on the spider wasps (Hymenoptera, Pompilidae) from the Western Siberia. *Far Eastern Entomologist*, 279, 1–10.
- Banks, N. (1939) Notes and descriptions of native Psammocharidae. *The Canadian Entomologist*, 71, 225–231.  
<http://dx.doi.org/10.4039/ent71225-11>
- Dahlbom, A.G. (1842) *Dispositio Methodica Specierum Scandinavicarum ad Familias Hymenopterorum Naturales pertinentium ab Andrea Gustav Dahlbom. Pt. 1. SpheX in sensu Linnaeano*. Typis excudis Carolus Fr. Berling, Lundae, 16 pp.
- Dahlbom, A.G. (1843–1845) *Hymenoptera Europaea praecipue borealia; formis typicis nonnullis Specierum Generumve Exoticorum aut Extraneorum propter nexum systematicum associatis; per Familias, Genera, Species et Varietates disposita atque descripta. Tomus: SpheX in sensu Linnaeano*. Officina Lundbergiana, Lund, I–XLIV+1–528. [(1843) Fasc. 1: 1–172; (1844) Fasc. 2: 173–352; (1845) Fasc. 3: 353–528, unnumbered plate, 10 tables]  
<http://dx.doi.org/10.5962/bhl.title.15890>
- Hadley, A. (2008) CombineZM. Available from: <http://www.hadleyweb.pwr.blueyonder.co.uk/> (accessed 1 August 2011)
- Ishikawa, R. (1966) Descriptions of the new spider wasps in the genera *Pompilus* and *Clistoderes*, with notes on the subgenus *Ceratocnemis* Wolf, 1960 (Hymenoptera, Pompilidae). *Bulletin of the National Science Museum, Tokyo*, 9 (2), 85–99.
- Kincaid, T. (1900) Papers from the Harriman Alaska expedition. Entomological results. 8. The Sphegoidea and Vespoidea. *Proceedings of the Washington Academy of Sciences*, 2, 507–510.
- Lelej, A.S. (1995) 64. Fam. Pompilidae–Spider wasps. In: Lelej, A.S., Kupianskaya, A.N., Kurzenko, N.V. & Nemkov, P.G. (Eds.), *Key to the Insects of the Russian Far East. Vol. IV. Neuropteroidea, Mecoptera, Hymenoptera. Pt 1*. Nauka, Sankt-Petersburg, pp. 211–264. [in Russian]
- Loktionov, V.M. & Lelej, A.S. (2011) Review of the subgenus *Ammosphex* Wilcke, 1942 of the genus *Arachnospila* Kincaid, 1900 (Hymenoptera: Pompilidae) of Russian Far East and East Siberia. *Zootaxa*, 3137, 1–30.
- Loktionov, V.M. & Lelej, A.S. (2014) *Spider wasps (Hymenoptera: Pompilidae) of the Russian Far East*. Dalnauka, Vladivostok. 472 pp. [in Russian].
- Móczár, L. (1968) Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei. 167. Pompilidae (Hymenoptera). *Acta Zoologica Academiae Scientiarum Hungaricae*, 14 (3–4), 427–439.
- Morawitz, F. (1889) Insecta, a cl. G.N. Potanin in China et in Mongolia novissime lecta. IV. Hymenoptera Aculeata. *Horae Societatis Entomologicae Rossicae*, 23 (1–2), 112–168.
- Thomson, C.G. (1870) Öfversigt af Sveriges rofsteklar. *Opuscula Entomologica*, 1 (2), 202–251.
- Tobias, V.I. (1978) [Superfamily Pompiloidea]. In: Medvedev, G.S. (Ed.), *Key to the Insects of the European Part of the USSR. Vol. III. Hymenoptera. Pt 1*. Nauka, Leningrad, pp. 83–147. [in Russian]
- Tournier, H. (1889–1890) Hyménoptères. Etude de quelques pompilides d'Europe et contrées limitrophes. *L'Entomologiste Genevois*, 133–140, 154–178(1889); 194–219. (1890)
- Wahis, R. (2011) Fauna Europaea: Hymenoptera, Pompilidae. *Fauna Europaea version 2.4*. Available from: <http://www.faunaeur.org> (accessed 20 August 2011)
- Wesmael, M. (1851) Revue critique des Hyménoptères fouisseurs de Belgique. *Bulletin de l'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique*, 18 (2), 362–384 (Mutillidae, Scoliidae, Sapygidae); 451–493 (Pompilidae).  
<http://dx.doi.org/10.5962/bhl.title.67728>
- Wilcke, J. (1942) Het geslacht *Pompilus* F. (*Psammochares* Latr.). *Entomologische Berichten*, 11, 23–32.
- Wolf, H. (1965) Neue Wegwespen (Hymenoptera, Pompilidae) aus der Schweiz und aus dem Musée zoologique, Lausanne. *Mitteilungen der Schweizerischen Entomologischen Gesellschaft*, 38 (1–2), 88–105.
- Wolf, H. (1981) Wegwespen (Hymenoptera: Pompilidae) aus der Mongolei. *Mitteilungen aus dem Zoologischen Museum in Berlin*, 57 (2), 193–211.  
<http://dx.doi.org/10.1002/mmnz.19810570202>
- Wolf, H. & Móczár, L. (1972) Ergebnisse der zoologischen forschungen von Dr. Z. Kaszab in der Mongolei. 287. Pompilidae Gattungen: *Cryptocheilus* bis *Arachnospila* (Hymenoptera). *Acta Zoologica Academiae Scientiarum Hungaricae*, 18 (1–2), 237–265.
- Zonstein, S. (2002) Supplementary materials to the spider wasp fauna (Hymenoptera: Pompilidae) of Kyrgyzstan. *Entomological Investigation in Kyrgyzstan*, 22, 119–144. [in Russian]