

## Editorial

Maxim Yu. Proshchalykin<sup>1</sup>, Vladimir E. Gokhman<sup>2</sup>

**1** Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far East Branch of the Russian Academy of Sciences, Vladivostok 690022, Russia **2** Botanical Garden, Moscow State University, Moscow 119234, Russia

Corresponding author: Maxim Yu. Proshchalykin ([proshchalikin@biosoil.ru](mailto:proshchalikin@biosoil.ru))

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On August 25, 2021, Arkady S. Lelej, an outstanding Russian entomologist and a very fine person, turns 75. In addition to their warmest regards to him, Arkady's colleagues and friends prepared a Special Issue of the Journal of Hymenoptera Research on this special occasion. 53 authors from Belgium, China, Czech Republic, Estonia, Finland, Germany, Italy, Japan, the Netherlands, Trinidad and Tobago, Ukraine, United Kingdom, USA, and Russia (Feodosiya, Kaliningrad, Moscow, Nizhny Novgorod, Petrozavodsk, Saratov, St. Petersburg, and Vladivostok) took part in preparing this Issue. They have jointly presented 24 papers dedicated to various aspects of Hymenoptera studies, including descriptions of five insect genera, 28 species and one subspecies as new to science. Among them, 18 new taxa (three genera and 15 species) are named in Arkady's honor.

Most papers in this Special Issue are dedicated to taxonomy and faunistics of various hymenopteran taxa. These include members of all traditional major subdivisions of the order, i.e., Symphyta, Parasitica and Aculeata. Among the extant taxa, there are members of the West Palaearctic *Euura bergmanni* and *oligospila* species groups (Tenthredinidae) (Prous et al. 2021), Ichneumonidae from the Eastern Palearctic and Oriental regions (Humala 2021; Kasparyan and Khalaim 2021), Afrotropical members of the braconid genus *Sculptolobus* Yang et al., 2008 (Samartsev and van Achterberg 2021), chalcid wasps of the genus *Toxeuma* Walker, 1833 (Pteromalidae) of the Russian fauna (Tselikh and Dale-Skey 2021), flat wasps of the genus *Sierola* Cameron, 1881 (Bethylinidae) from China (Wang et al. 2021), and a new species of the genus *Odontosphex* Arnold, 1951 (Crabronidae) from Central Asia (Mokrousov and Prosh-



**Figure 1.** 9<sup>th</sup> International Congress of Hymenopterists. Ehime University, Matsuyama, Japan, 23–27 July 2018. Arkady S. Lelej presents his talk at the Congress. 26 July 2018.

chalykin 2021), a new species of the genus *Anteon* Jurine, 1807 (Dryinidae) from Turkey (Speranza et al. 2021) as well as cuckoo wasps (Chrysididae) from Pakistan and India (Rosa et al. 2021), two bee genera from the Caucasus, Mongolia, Middle East and North Africa (Astafurova and Proshchalykin 2021; Proshchalykin and Dathe 2021; Bogusch 2021) and new genera and species of spider wasps (Pompilidae) and velvet ants (Mutillidae) from the Oriental Region (Shimizu et al. 2021; Loktionov 2021; Okayasu 2021).

In addition, a few extinct groups were described, mostly from Baltic, Rovno and Sakhalinian ambers. These taxa include braconid parasitoids of ants from the tribe Neoneurini (Belokobylskij et al. 2021) as well as new genera and species of Encyrtidae (Simutnik et al. 2021) and Formicidae (Radchenko and Proshchalykin 2021). Moreover, a new genus and species of the extinct family Peleserphidae (Proctotrupoidea) are described by Rasnitsyn (2021).

In a single morphological study, the ultrastructure of unusual placoid sensilla of miniature *Megaphragma* Timberlake, 1924 wasps (Trichogrammatidae) was examined with various methods of electron microscopy (Diakova and Polilov 2021).



**Figure 2.** 9<sup>th</sup> International Congress of Hymenopterists. Participants from Russia (left to right): Andrey I. Khalaim, Arkady S. Lelej, Ekaterina V. Tselikh, Vladimir E. Gokhman. 23 July 2018.

Several papers are dedicated to the bionomics of certain groups of Hymenoptera, including details of parasitism by two *Eupelmus* Dalman, 1820 species (Eupelmidae) on *Aulacidea hieracii* (Bouché, 1834) (Cynipidae) (Gokhman and Nikelshparg 2021), additional nesting data for *Leptochilus regulus* (de Saussure, 1855) (Vespidae) (Fateryga and Fateryga 2021) as well as defensive adaptations of Mutillidae (Schmidt et al. 2021) and caste and wing loading in *Dolichovespula maculata* (Linnaeus, 1763) (Vespidae) (Starr et al. 2021).

We celebrated Arkady's 70<sup>th</sup> anniversary just five years ago. On that occasion, a Special Issue of the Euroasian Entomological Journal was published ([http://www.eco.nsc.ru/eej/supplement\\_2016\\_15\\_1.html](http://www.eco.nsc.ru/eej/supplement_2016_15_1.html)). In this Issue, Arkady's biography, together with a full list of his published papers and taxa described by him, is given. Nevertheless, Arkady did not decrease his productivity since that time. He continues to work intensively, coupling research with organizational activities. Arkady continues to lead the Laboratory of Entomology of the Federal Scientific Center of



the East Asia Terrestrial Biodiversity in Vladivostok. He is the Head of the Publishing Commission, and a member of both the Scientific Council and Dissertation Panel of the Center. During the last five years, Arkady led three projects funded by the Russian Foundation for Basic Research (RFBR), including IV Eurasian Symposium on Hymenoptera (September 9–15, 2019, Vladivostok). Starting from 2017, he published more than 50 papers dedicated to various hymenopteran taxa as well as to members of other insect orders, in addition to about 350 papers published during the previous years.

## List of selected papers authored by Arkady Lelej (2017 – June 2021)

### 2017

- Brothers DJ, Lelej AS (2017) Phylogeny and higher classification of Mutillidae (Hymenoptera) based on morphological reanalyses. *Journal of Hymenoptera Research* 60: 1–97.
- Zhou H-T, Lelej AS, Xu Z-F (2017) Discovery of the subfamily Rhopalomutillinae (Hymenoptera: Mutillidae) in China and description of *Pherotilla brothersi* sp. nov. *Zootaxa* 4273(4): 587–594.
- Lelej AS, Williams KA, Loktionov VM, Pang H, Xu Z (2017) Review of the genus *Zeugomutilla* Chen, 1957 (Hymenoptera, Mutillidae, Mutillini), with description of two new species. *Zootaxa* 4247(1): 1–15.
- Lelej AS, Proshchalykin MYu, Loktionov VM (Eds) (2017) Annotated catalog of the Hymenoptera of Russia. Volume I. Symphyta and Aculeata. Proceedings of the Zoological Institute RAS, Supplement 6: 5–475.
- Loktionov VM, Lelej AS, Xu Z-F (2017) Review of the *Priocnemis hyalinata* species-group (Hymenoptera: Pompilidae), with description of a new species from China. *Zootaxa* 4254: 551–562.
- Loktionov VM, Lelej AS, Xu Z-F (2017) Review of the genus *Eopompilus* Gussakovskij, 1932 (Hymenoptera: Pompilidae) with the description of new species from China. *Zootaxa* 4277: 413–426.
- Loktionov VM, Lelej AS, Xu Z-F (2017) Discovery of the genus *Nipponodipogon* Ishikawa in the Oriental region, with description of two new species from China (Hymenoptera, Pompilidae). *ZooKeys* 692: 103–127.
- Sakhvon VV, Lelej AS (2017) Review of the genus *Habropogon* Loew, 1847 (Diptera: Asilidae) from Russia, with description of new species from Siberia. *Zootaxa* 4311(3): 417–425.
- Lelej AS, Mokrousov MV (2017) The types of Scoliidae (Hymenoptera), described by Eduard Eversmann, with some taxonomic notes and checklist of Russian Scoliidae. *Far Eastern Entomologist* 340: 1–17.
- Rosa P, Lelej AS, Proshchalykin MYu, Loktionov VM, Mokrousov MV (2017) New records of Chrysidae (Hymenoptera) from Russia with description of five new species. *Far Eastern Entomologist* 345: 1–33.

**2018**

- Barthélémy C, Lelej AS, Loktionov VM (2018) A contribution to the Mutillidae (Hymenoptera) of Hong Kong. *Zootaxa* 4514(2): 230–242.
- Zhou H-T, Lelej AS, Williams KA, Liu J-X (2018) Revision of the Oriental genus *Zavatilla* Tsuneki (Hymenoptera, Mutillidae, Trogaspidiini), with descriptions of two new species. *Zootaxa* 4418(2): 101–120.
- Okayasu J, Williams KA, Lelej AS (2018) A remarkable new species of *Sinotilla* Lelej (Hymenoptera: Mutillidae: Smicromyrmini) from Taiwan and an overview of color diversity in East Asian mutillid females. *Zootaxa* 4446(3): 301–324.
- Mokrousov MV, Lelej AS, Fadeev KI (2018) New data on the Palaearctic wasps of the genus *Sierolomorpha* Ashmead, 1903 (Hymenoptera, Sierolomorphidae) with description of *S. trjapitzini* sp. n. from Primorskii Territory, Russia. *Entomological Review* 98(6): 737–742.
- Loktionov VM, Lelej AS (2018) Discovery of the spider wasp genus *Sphictostethus* Kohl, 1884 (Hymenoptera: Pompilidae: Pepsinae) in New Guinea, with description of two new species. *Zootaxa* 4429: 295–302.
- Loktionov VM, Lelej AS (2018) To the knowledge of genus *Nipponodipogon* Ishikawa, 1965 (Hymenoptera: Pompilidae, Pepsinae) from Laos. *Far Eastern Entomologist* 362: 1–7.
- Loktionov VM, Lelej AS, Liu J-X (2018) Contribution to the knowledge on the spider wasps genus *Morochares* Banks, 1934 (Hymenoptera: Pompilidae) from China. *Zootaxa* 4462: 497–510.
- Mokrousov MV, Lelej AS, Gorbатовsky VV (2018) The types of described by Eduard Eversmann Tiphidae and Sierolomorphidae (Hymenoptera) with taxonomic notes. *Far Eastern Entomologist* 349: 11–16.
- Zhou H-T, Lelej AS, Liu J-X (2018) New records of velvet ants (Hymenoptera: Mutillidae) from China with taxonomic notes. *Far Eastern Entomologist* 354: 23–28.
- Shimizu A, Lelej AS, Loktionov VM, Nishimoto Y, Endo T (2018) Revision of the subgenus *Stigmatodipogon* Ishikawa of the genus *Dipogon* Fox (Hymenoptera: Pompilidae: Pepsinae). *Zootaxa* 4514: 1–22.
- Wahis R, Lelej AS, Loktionov VM (2018) Contribution to the knowledge of the genus *Eopompilus* Gussakovskij, 1932 (Hymenoptera, Pompilidae). *Far Eastern Entomologist* 361: 1–11.
- Sakhvon VV, Lelej AS (2018) Review of the genus *Heteropogon* Loew, 1847 (Diptera: Asilidae) from Russia, and Central Asia, with description of two new species. *Zootaxa* 4486(4): 435–450.

**2019**

- Achterberg C, van, Sundukov YuN, Lelej AS, Belokobylskij SA (2019) To the knowledge of Gasteruptiidae (Hymenoptera) from Russian Far East. *Far Eastern Entomologist* 381: 1–8.

- Brothers DJ, Lelej AS, Williams KA (2019) Genus-group names of Mutillidae (Hymenoptera): corrections and updates since 2008. *Zootaxa* 4651(3): 578–588.
- Kochetkov DN, Olmi M, Lelej AS (2019) Contribution to the knowledge of dryinid wasps genus *Anteon* Jurine, 1807 (Hymenoptera: Dryinidae) in the Russian Far East. *Far Eastern Entomologist* 323: 11–17.
- Williams KA, Lelej AS, Thaochan N (2019) New species of Myrmosinae (Hymenoptera: Mutillidae) from Southeastern Asia. *Zootaxa* 4656(3): 525–534.
- Kumar GP, Lelej AS, Das D, Raveendran HKP, Loktionov VM (2019) Discovery of the genus *Kudakrumia* Krombein, 1979 (Hymenoptera: Mutillidae) in India and description of a new species. *Zootaxa* 4612(6): 260–266.
- Loktionov VM, Lelej AS (2019) Contribution to the knowledge of the subgenus *Stigmatodipogon* Ishikawa, 1965 of the genus *Dipogon* Fox, 1897 (Hymenoptera: Pompilidae). *Zootaxa* 4613(2): 363–368.
- Ilyasov RA, Youn HG, Lee M-I, Kim KW, Proshchalykin MYu, Lelej AS, Takahashi J-I, Kwon HW (2019) Phylogenetic relationships of Russian Far-East *Apis cerana* with other North Asian populations. *Journal of Apicultural Science* 63(2): 289–314.
- Loktionov VM, Lelej AS, Liu J-X (2019) A new genus of spider wasps (Hymenoptera, Pompilidae) from China. *Far Eastern Entomologist* 376: 1–14.
- Loktionov VM, Lelej AS (2019) The spider wasp genus *Telostholus* Haupt, 1929 (Hymenoptera, Pompilidae) in Indonesia, with the description of three new species. *Zootaxa* 4648(2): 260–272.

## 2020

- Engel MS, Lelej AS (2020) On the spelling of family-group names based on the genus *Trigonalys* Westwood (Hymenoptera: Trigonalidae versus Trigonalysidae). *Entomologist's Monthly Magazine* 156(1): 58–60.
- Gadallah NS, Lelej AS, Brothers DJ (2020) Biodiversity of the aculeate wasps (Hymenoptera: Aculeata) of the Arabian Peninsula: Vespoidea, Mutillidae. *Zootaxa* 4754(1): 141–152.
- Lelej AS, Terine JB, Kumar GP, Das D, Sureshan PM (2020) Review of the genus *Odontomutilla* Ashmead, 1899 (Hymenoptera: Mutillidae) of the Indian subcontinent, with description of two new species. *Zootaxa* 4822(2): 191–208.
- Lelej AS (2020) To the knowledge of velvet ants of the genera *Artiotilla* Invrea, *Radoszkowskitilla* Lelej and *Taiwanomyrme* Tsuneki (Hymenoptera: Mutillidae). *Far Eastern Entomologist* 410: 1–10.
- Lelej AS (2020) Three new species of velvet ants from the tribe Smicromyrmini (Hymenoptera: Mutillidae) with unusual color syndrome. *Far Eastern Entomologist* 421: 1–9.
- Pagliano G, Brothers DJ, Cambra R, Lelej AS, Lo Cascio P, Matteini Palmerini M, Scaramozzino PL, Williams KA, Romano M (2020) Checklist of names in Mutillidae (Hymenoptera), with illustrations of selected species. *Bollettino del Museo Regionale di Scienze Naturali* 36(1–2): 5–425.

**2021**

- Okayasu JA, Lelej AS, Williams KA (2021) Review of the genus *Eotrogaspidia* Lelej, 1996 (Hymenoptera: Mutillidae: Trogaspidiini). *Zootaxa* 4920(1): 56–90.
- Sutanto DD, Williams KA, Nugroho H, Lelej AS (2021) To the knowledge of the velvet ant Genus *Bischoffitilla* Lelej (Hymenoptera: Mutillidae) in Indonesia. *Treubia* 48(1): 1–12.

In these works, 3 tribes, 1 subtribe, 1 genus, 41 species and 1 subspecies of Hymenoptera from 4 families are described in total as new to science. The whole list of the new taxa described by Arkady Lelej therefore includes 364 names.

### List of the hymenopteran taxa described by Arkady Lelej (2017 – June 2021)

#### Family Mutillidae

- Apteromutillini Brothers & Lelej, 2017  
 Ctenotillini Brothers & Lelej, 2017  
 Dasymutillini Brothers & Lelej, 2017  
 Euspinoliina Brothers & Lelej, 2017  
*Eotrogaspidia adhabar* Okayasu, Lelej & Williams, 2021  
*Eotrogaspidia buddha* Okayasu, Lelej & Williams, 2021  
*Eotrogaspidia hauseri* Okayasu, Lelej & Williams, 2021  
*Eotrogaspidia melanopleura* Okayasu, Lelej & Williams, 2021  
*Ephucilla hejunhuai* Lelej, 2020  
*Krombeinella brothersi* Williams, Lelej & Thaochan, 2019  
*Kudakrumia loaibonho* Williams, Lelej & Thaochan, 2019  
*Kudakrumia malaenglek* Williams, Lelej & Thaochan, 2019  
*Kudakrumia rangnekari* Girish Kumar & Lelej, 2019  
*Odontomutilla fletcheri* Lelej, Terine & Girish Kumar, 2020  
*Odontomutilla sairandhriensis* Terine, Girish Kumar & Lelej, 2020  
*Pherotilla brothersi* Zhou, Lelej & Xu, 2017  
*Promecidia abnormis* Lelej, 2016  
*Promecidia chui* Lelej et Xu, 2016  
*Promecilla ovtchinnikovi* Lelej, 2020  
*Sinotilla nigrothoracica* Okayasu, Williams & Lelej, 2018  
*Smicromyrme burgeri* Lelej, 2020  
*Taiwanomyrme cheni* Lelej, 2020  
*Zavatilla nepalensis* Zhou et Lelej, 2018  
*Zavatilla xuzaifui* Zhou, Lelej et Williams, 2018  
*Zeugomutilla pangi* Lelej, 2017

#### Family Pompilidae

- Eopriocnemis* Loktionov & Lelej, 2019

*Dipogon lao* Loktionov & Lelej, 2018  
*Dipogon wasbaueri* Loktionov & Lelej, 2019  
*Dipogon siam* Loktionov & Lelej, 2019  
*Eopompilus pseudominor* Loktionov, Lelej & Xu, 2017  
*Eopriocnemis albiflagellata* Loktionov & Lelej, 2019  
*Morochares sinica* Loktionov & Lelej, 2018  
*Morochares wahisi* Loktionov & Lelej, 2018  
*Morochares wolff* Loktionov & Lelej, 2018  
*Morochares xuzaiifui* Loktionov, Lelej & Liu, 2018  
*Nipponodipogon gusenleitnerorum* Loktionov & Lelej, 2018  
*Nipponodipogon orientalis* Loktionov, Lelej & Xu, 2017  
*Nipponodipogon shimizui* Loktionov, Lelej & Xu, 2017  
*Priocnemis yunnanensis* Loktionov, Lelej & Xu, 2017  
*Sphictostethus arfak* Loktionov & Lelej, 2018  
*Sphictostethus papua* Loktionov & Lelej, 2018  
*Stigmatoporus volgadon* Loktionov & Lelej, 2016  
*Telostholus celebes* Loktionov & Lelej, 2019  
*Telostholus rinjani* Loktionov & Lelej, 2019  
*Telostholus sulawesi* Loktionov & Lelej, 2019

### Family Apidae

*Apis cerana ussuriensis* Ilyasov, Takahashi, Proshchalykin, Lelej & Kwon, 2019

### Family Sierolomorphidae

*Sierolomorpha trjapitzini* Mokrousov & Lelej, 2018

In addition to his talent as a scientist, Arkady possesses a number of other remarkable features. First, he is kind and respectful to all surrounding people, including colleagues at work and people on the street. His wonderful politeness and ability to avoid conflicts, i.e., features which are definitely rare and needed nowadays, allow him to quickly establish connections with unfamiliar people who are always positively impressed by their first meeting with him. We know that Arkady's personality and proficiency in insect collecting, are highly valued by his colleagues (in total, 92 entomologists from 20 countries, including authors of this Special Issue), who named 103 (!) insect taxa in Arkady's honor (COLEOPTERA: Salpingidae (1); DIPTERA: Asilidae (5), Cecidomyiidae (1), Chironomidae (1), Dolichopodidae (1), Hybotidae (2), Phoridae (1), Rhagionidae (2), Syrphidae (4); HEMIPTERA: Aphilidae (1); HYMENOPTERA: Andrenidae (2), Apidae (1), Aulacidae (1), Bethylinidae (3), Braconidae (14), Bradynobaenidae (1), Cephidae (1), Chrysididae (3), Colletidae (2), Crabronidae (6), Cynipidae (1), Diapriidae (2), Drynidae (2), Encyrtidae (2), Eulophidae (1), Eurytomidae (2), Formicidae (3), Halictidae (1), Ichneumonidae (8), Mutillidae (5), Mymaridae (1), Pamphiliidae (1), Peleserphidae (2), Pompilidae (4), Proctotrupidae (1), Pteromalidae (3), Sphecidae (1), Tenthredinidae (1), Torymidae (1), Vespidae (3);



LEPIDOPTERA: Sesiidae (1), Uraniidae (1); ORTHOPTERA: Acrididae (1), Gryllidae (2). We believe we can hardly find similar examples among modern entomologists, and we feel privileged to know him as one of the great modern entomologists, a friend, and a delightful human being.

The Editors and the Editorial Office of the Journal of Hymenoptera Research, numerous colleagues acting as reviewers of the papers, as well as the Administration of the Federal Scientific Center of the East Asia Terrestrial Biodiversity, were of great help in preparing this Special Issue.

Happy 75<sup>th</sup> birthday, Arkady Stepanovich! We wish you a long and happy life and many new amazing discoveries!