



PREFACE: Proceedings of the 14th International Symposium on Trichoptera

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These Proceedings are dedicated to the memory of
Dr. Andrey V. MARTYNOV (1879–1938) and
Dr. Iya M. LEVANIDOVA (1914–2005),
outstanding trichopterologists in the Russian Academy of Sciences,
for their remarkable contributions to our science.
They lived in different times, worked in different institutions,
and never met each other,
but they established the foundations
for Trichoptera research in Russia
and created the school of aquatic entomologists
in the best traditions of Russian science.

The 14th International Symposium on Trichoptera was held 2–7 July 2012 in Vladivostok, Russia (Primorsky Territory or “Primorye”). The idea of carrying out the Symposium in Vladivostok was completely supported by participants in the previous 13th Symposium in Poland (Białowieża) 27 June 2009. One of the main arguments in favor of this venue was that the Far Eastern region of Russia, and in particular Primorye, is one of the world’s most interesting biogeographical areas.

The climate of the southern Far East, is generally monsoon and damp, influenced by its proximity to the sea. However, the climate of Far East coastal regions differs from that farther inland (*e.g.*, the warmest month is July in the continental interior of Primorye and August on the coast). About the biota of South Far East, legend says: “While distributing treasures among different lands, God forgot about Primorye. When he remembered, he threw it the leftovers from his sack.” This seems to be particularly true of the Ussuri taiga, the dense forest of Primorye: Species of flora and fauna live there in great variety and profusion. As in a fairy tale, the coniferous and deciduous trees of the North are bound up with lianas of the South. The freshwater resources of Primorye are rich. There are about 6000 rivers that are more than 10 km long (91 of them more than 50 km). The density of drainage systems is 0.73 km/km² (the average across Russia is 0.22 km/km²). There are more than 3000 small lakes and the widest lake, Khanka Lake, extending about 4,000–5,000 km², is very shallow (maximum depth about 7 m!). Wetlands occupy about 4% of the Primorye Territory, with very rich hyporheic waters and many different mineral and hot springs.

The Trichoptera fauna of the Russian Far East is strikingly different from the faunas of the rest of Russia. These differences are especially visible in the southernmost Far East, in Primorsky Territory, which belongs to the East Asian Subregion (Amur Province) of the Palaearctic Region. The Trichoptera diversity of this region is extraordinarily rich, with about 480 species (about 75% of the total Russian caddisfly fauna) from 25 families; many of them are endemic, rare or limited to the Eastern Palaearctic Region.

The place where the Symposium was held, Vladivostok, was also very attractive for participants who are interested in the past and modern history of Eastern Russia. Vladivostok is the largest city on the Pacific coast of Russia and is the administrative center of Primorsky Territory. Surrounded by the Amursky Gulf on the west, the Ussuriysky Gulf on the east, and Golden Horn Bay along the south of the city center, Vladivostok is located in a hilly region and is the home of the Russian Pacific Fleet. Vladivostok, meaning the “Overlord of the East” in Russian, is located less than 75 miles east of the Chinese border, approximately 100 miles north of Korea and just across the Sea of Japan from the main Japanese island of Honshu. Vladivostok shares the same

or approximately the same latitude with Sapporo, Sukhumi, Almaty, Florence, Marseille, La Coruña, Boston, and Toronto. So these and other features attracted trichopterologists to make a choice for Vladivostok.

During 2–7 July 2012, 72 participants from 22 countries came to Vladivostok. The scientific program of the Symposium included seven sections: (1) Morphology and Anatomy, (2) Biogeography and Faunistics; (3–4) Life history, Ecology and Bioassessment; (5) Systematics; (6) Phylogeny and Evolution; (7) Fossils and Amphiesmenoptera Phylogeny & Evolution.

Three Round Table Discussions included the following: (1) International Freshwater Bioassessment, (2) Public Initiatives for Springs Protection, and (3) Morphology and Terminology of Amphiesmenoptera Terminalia. There was also a Workshop for Beginners in Phylogeography and Molecular Study in the Symposium program. Thirty-one (with 62 authors) oral lectures and 33 (78 authors) posters were presented.

An interesting part of the Symposium was the participation by school children and their teachers and water business representatives in Round Table 2 with their results on spring and stream investigation and water protection (3 reports).

Interesting trips around Vladivostok and some intra-symposium and post-symposium excursions for participants and accompanying persons were organized as extensions of the Symposium. The trip to Khasan District and the "Kedrovaya Pad" Nature Reserve and nearby "Leopard's Land" National Park took place on 5 July 2015. Post-symposium excursions were conducted during 8–12 July 2015 to the vicinity of Anisimovka Village and the "Vostok Bay" Protected Area (18 participants), during 12–14 July to Khanka Nature Reserve (14 participants), and then during 14–23 July 2015 to Chuguevka and Arkhipovka Villages (Chuguevsky District) and the vicinity of Kuchelinovo Village (Ussuriisky Nature Reserve) (8 participants). The last of the post-symposium excursions was specially named "To the sources of Ussuri: Along the routes of A.V. Martynov," because Andrey Vasilievich Martynov, the world-famous Russian trichopterologist, worked in this region in 1927 and described many species collected in this part of Primorye.

Throughout the Symposium and excursions, the Primorian weather "played" well for us and many of participants were able to take caddisflies with nets in the day time and with light traps at night. Some colleagues were very concerned about walking "on Red Book species" (the Khasan District is especially rich with rare and "red list species" of plants and animals) and enjoyed seeing nature around the hilly landscapes covered by Ussurian taiga.

The caddis species on the symposium logo was *Neophylax ussuriensis* (Martynov 1914), a symbolic species of Primorye described by A.V. Martynov and named in honor of its native Ussurian region.

During the Symposium and the trip into the Khasan District, the famous Canadian trichopterologist Dr. Andrew Nimmo with his wife Carita Nybom were with us. Dr. Nimmo (called "Andy" by his many colleagues and friends) was a very significant figure in Far East Russian trichopterozoology and the expert who knew the natural history of Primorye very well. In 1989, he was the first foreign scientist to arrive in Primorye in the "perestroika period" and then visited Vladivostok several times, working together with Russian colleagues for creation of the Key for Caddisflies of the Russian Far East (Kononenko, V.S. 1997. Key to the Insects of Russian Far East volume 5, part 1, Trichoptera and Lepidoptera. Russian Academy of Science, Far Eastern Branch, Biology and Soil Sciences Institute, Vladivostok, Dal'nauka. 540 pages. [in Russian]). The warm and caring attitude of Dr. Nimmo is remembered not only by his Russian colleagues, but also by common people who together with him took part in expeditions around southern Primorye, the so-called "Nimmo group." In the hard "perestroika" times when shelves of our shops were empty, we received from Dr. Nimmo parcels with tea, chocolate, gifts for us and our children, and by New Year even financial support (at that time 10 US dollars was almost equal to our monthly salary). Dr. Nimmo passed away in 2015 and we never forget him as a remarkable person and an outstanding trichopterologist.

The Proceedings of previous international symposia on Trichoptera have been published by a variety of publishers, including Dr. W. Junk (Malicky 1976, Crichton 1978, Moretti 1981, Morse 1984, Bournaud & Tachet 1987), Adam Mickiewicz University Press (Tomaszewski 1991), Backhuys Publishers (Otto 1993), Ohio Biological Survey (Holzenthal & Flint 1997), Faculty of Science of Chiang Mai University (Malicky & Chantaramongkol 1999), Deutsches Entomologisches Institut (Mey 2002), Tokai University Press (Tanida & Rossiter 2005), The Caddis Press (Bueno-Soria *et al.* 2007), and *Zoosymposia* (Majecka *et al.* 2011). Complete references for those earlier Proceedings are as follows:

Bournaud, M. & Tachet, H. (Eds.) (1987) *Proceedings of the 5th International Symposium on Trichoptera, Lyon (France), 21–26 July 1986. Series Entomologica 39.* Dr. W. Junk Publishers, Dordrecht, xxiv + 424 pp.
<http://dx.doi.org/10.1007/978-94-009-4043-7>

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- Crichton, M.I. (Ed.) (1978) *Proceedings of the 2nd International Symposium on Trichoptera, University of Reading, England, 25–29 July 1977*. Dr. W. Junk Publishers, The Hague, xvi + 359 pp.
<http://dx.doi.org/10.1007/978-94-017-2778-5>
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- Majecka, K., Majecki, J. & Morse, J. (Eds.) (2011) *Proceedings of the 13th International Symposium on Trichoptera. Zoosymposia*, 5, 1–512.
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- Mey, M. (Ed.) (2002) *Proceedings of the 10th International Symposium on Trichoptera, Potsdam, Germany, July 30–August 5, 2000. Deutsches Entomologisches Institut, Nova Supplementa Entomologica 15*. Goecke & Evers, Keltern, xxiv + 664 pp.
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<http://dx.doi.org/10.1007/978-94-009-8641-1>
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- Otto, C. (Ed.) (1993) *Proceedings of the 7th International Symposium on Trichoptera, Umeå, Sweden, 3–8 August 1992*. Backhuys Publishers, Leiden, 312 pp.
- Tanida, K. & Rossiter, A. (Eds.) (2005) *Proceedings of the 11th International Symposium on Trichoptera, Sakai, Osaka & Kutsuki, Shiga, JAPAN, 12–19 June 2003*. Tokai University Press, Hadano-shi, Kanagawa, x + 474 pp.
- Tomaszewski, C. (Ed.) (1991) *Proceedings of the 6th International Symposium on Trichoptera, Łódź-Zakopane (Poland), 12–16 September 1989. Series Zoology 20*. Adam Mickiewicz University Press, Łódź, Poznań, xxiv + 479 pp.

This volume for the 14th International Symposium on Trichoptera is being published by the online journal *Zoosymposia*, a production of Magnolia Press and a sister journal of the well-known online journal *Zootaxa*. Distinguishing features of *Zoosymposia* and advantages for publication in this venue were outlined in the Preface for the Proceedings of the 13th International Symposium on Trichoptera (Majecka *et al.* 2011).

As for the Proceedings of the 13th Symposium, all manuscripts were reviewed by at least 2 peers. For these Proceedings, Senior Editor T.S. Vshivkova coordinated the peer-review process and Co-Editor Morse then reviewed the manuscripts for English grammar (for manuscripts by authors for whom English is not the native language) and format.

A total of 46 manuscripts was submitted at the beginning, but 1 was rejected as inappropriate to the subject of the Proceedings, 2 were cancelled by authors during manuscript preparation, and 43 were finally accepted.

We are grateful for the peer reviews provided by colleagues listed below (with the number of manuscripts they reviewed). Their contributions have added greatly to the quality of the Proceedings and the individual papers included in them:

E.A. Beljaev (2), Z. Burington (2), S.K. Cheresova (1), O.S. Flint, Jr. (1), M.A. Floyd (1), R.W. Holzenthal (2), T. Ito (2), V.D. Ivanov (5), K.M. Kjer (2), W. Mey (1), F.C. De Moor (1), J.C. Morse (6), H. Nishimoto (1), T. Nozaki (1), M.G. Ponomarenko (3), E.V. Potikha (2), A.P. Rasnitsyn (1), D.E. Ruitter (2), D. Smirnova (1), T.S. Vshivkova (45), and I.A. Zasyapkina (2).

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Senior Editor T.S. Vshivkova would like to express deep gratitude to Prof. John Morse who agreed to take on the role of Co-Editor of the Proceedings and was deeply involved in the process of manuscript adjustment in accordance with the standards of Zoosymposia and helped in many different aspects at various stages of the editorial work.

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PARTICIPANTS OF THE XIV INTERNATIONAL SYMPOSIUM ON TRICHOPTERA, 2–7 JULY, 2012, VLADIVOSTOK, RUSSIA

Names in **bold** were the XIV Symposium participants.

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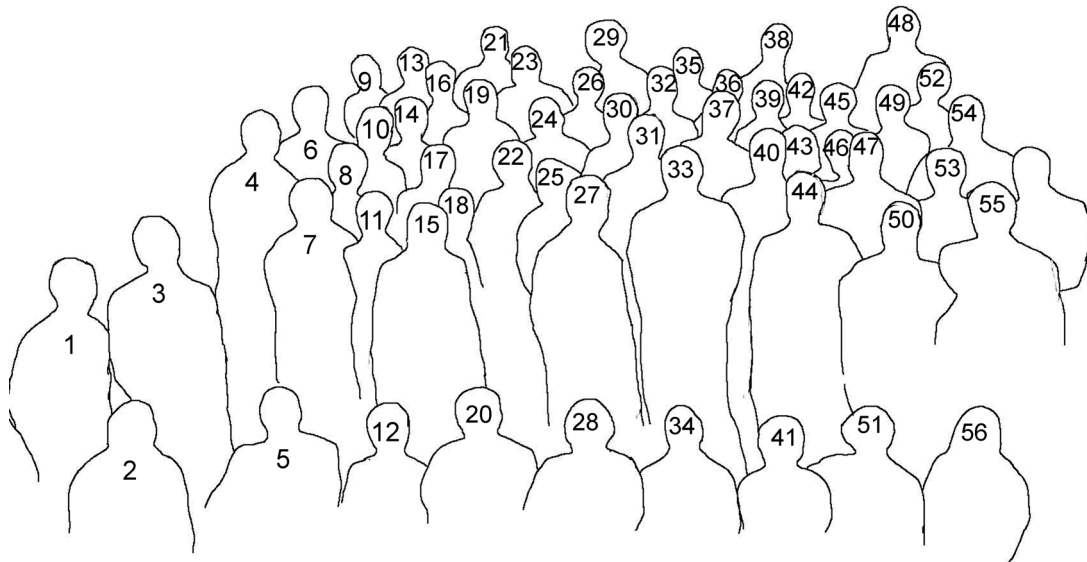


FIGURE 1. Photo of participants: 1—I. Sukatsheva; 2—K. Tojo; 3—E. Beljaev; 4—S. Melnitsky; 5—J. Morse; 6—W. Mey; 7—R. Saito; 8—G. Kimura; 9—L. Sibirina; 10—N. Kuhara; 11—L. Zhivoglyadova; 12—T. Ito; 13—S. Klyshevskaya; 14—M.C. Bicchierai; 15—M. Ponomarenko; 16—M. Oh; 17—A. Petris; 18—F. Cianficconi; 19—F. De Moor; 20—K. Hirabayashi; 21—S. Brainard; 22—C. Corallini; 23—M. Sorcetti; 24—O. Flint, Jr.; 25—S. Park; 26—T. Kurochkina (a school teacher); 27—K. Kjer; 28—P. Frandsen; 29—M. Kučinić; 30— P. Laudee; 31—M. Kubiak; 32—T. Bozhenko (a school teacher); 33—R. Holzenthal; 34—R. Thomson; 35—G. Gladkova; 36—A. Egortzeva (a schoolgirl, 7th grade); 37—T. Prommi; 38—M. Drovnik (a schoolgirl, 11th grade); 39—E. Potikha; 40—J. Majecki; 41—A. Wells; 42—K. Thawarorit; 43—P.Thamsenanupap; 44—T. Nozaki; 45—O.Loskutova; 46—K. Nybom; 47—V. Ivanov; 48—A. Nimmo; 49—D. Smirnova; 50—T. Vshivkova; 51—I. Zasypkina; 52—K. Kwiatkowska; 53—H. Nishimoto; 54—D. Ruiter; 55—K. Tanida; 56—F. Nishimoto; 57—A. Rasnitsyn.