

CURRICULUM VITAE:

ALEXANDER Y. KARATAYEV

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EDUCATION:

- Doctor of Science; Hydrobiology; Institute of Zoology; Belarusian Academy of Science, 1992
- Candidate of Science (Ph.D.); Hydrobiology; Institute of Zoology; Belarusian Academy of Science, 1983
- M.Sc., Biology; Belarusian State University, 1976

POSITIONS:

- 2007-Present: Professor, Director of the Great Lakes Center, Buffalo State University, Buffalo, NY
- 2011-2019: Adjunct Professor, Department of Geology, State University of New York at Buffalo
- 2006-2007: Professor, Biology Department, Stephen F. Austin State University, Nacogdoches, Texas
- 2001-2006: Associate Professor, Biology Department, Stephen F. Austin State University, Nacogdoches, Texas
- 2000-2001: Research Ecologist, University of the State of New York Museum Field Research Lab
- 1997-2000: Chair, General Ecology Department, Belarusian State University
- 1996-1997: Visiting Associate Professor at the University of Wisconsin-Madison, USA
- 1991-1997: Chief, Aquatic Ecology Department, Lakes Research Laboratory, Belarusian State University
- 1990-1991: Senior Scientist, Lakes Research Laboratory, Belarusian State University
- 1987-1990: Scientist, Lakes Research Laboratory, Belarusian State University
- 1979-1987: Junior Scientist, Lakes Research Laboratory, Belarusian State University
- 1977-1979: Assistant, General Ecology Department, Belarusian State University

ACADEMIC HONORS AND AWARDS:

- 1976: First Category Award, Republican Competition among undergraduate students from Belarusian Universities (for paper entitled “Typological evaluation of lakes on base of zooplankton data”)
- 1987: Second Award, Republican Competition for the Best Scientific Paper (for paper entitled “Ecology of Macroinvertebrates of Cooling Reservoirs of Belarus”)
- 1987: First Award, Belarusian State University Competition for the Best Scientific Paper (for paper entitled “Ecology of Macroinvertebrates of Cooling Reservoirs of Belarus”).
- 2005: Stephen F. Austin State University Faculty Achievement Award in Research.
- 2023: Buffalo State University Faculty Achievement Award in Research.

RESEARCH INTERESTS:

Biodiversity, conservation and management of freshwater ecosystems; ecology, biology, parasitology and spread of aquatic invasive species and their role in aquatic ecosystems; diversity, biology, and ecology of benthic communities; Diversity, distribution, and conservation of unionids.

GRANTS/CONTRACTS RECEIVED (PI/Co-PI):

- 2022-2028: Watkins J., Rudstam, L., L. E. Burlakova, A. Y. Karatayev, and A. Hrycik. Great Lakes Biology Monitoring Program: Zooplankton, *Mysis*, and Benthic Components. GLRI, U.S. EPA. \$6,750,000 (\$3,040,000 for BSU).
- 2017-2022: Rudstam, L., L. E. Burlakova, A. Y. Karatayev, J. Watkins. Great Lakes Long-term Biological Monitoring Program. GLRI, U.S. EPA. \$5,999,903.
- 2016-2018: Karatayev, A. Y., and L. E. Burlakova. Lake Superior Benthos: Cooperative Science and Monitoring Initiative. U.S. EPA. \$150,000.
- 2017-2019: Burlakova, L. E., A. Y. Karatayev. DNA Barcode Reference Library: Mollusca, Annelida, and minor phyla. U.S. EPA. \$400,000.
- 2014-2017: Karatayev, A. Y., L. E. Burlakova. Lake Erie and Lake Michigan Benthos: Cooperative Science and Monitoring Initiative. U.S. EPA. \$500,000.
- 2014-2017: Karatayev, A. Y., L. E. Burlakova, and D. Gorsky. Investigating Lake Sturgeon habitat use, feeding ecology, and benthic resource availability in the lower Niagara River. Ecological Greenway Fund. \$835,829.
- 2012-2017: Rudstam, L., A. Y. Karatayev, and L. E. Burlakova. Great Lakes Long-term Biological Monitoring Program. U.S. EPA. \$3,867,525.
- 2012-2013: Snyder, R. J., L. E. Burlakova, D. B. MacNeill, and A. Y. Karatayev. Enhanced Early Detection of Invasive Ponto-Caspian Fishes in the Great Lakes. U.S. EPA Great Lakes Restoration Initiative. \$99,756.
- 2012-2013: Burlakova, L. E., A.Y. Karatayev. Zebra/Quagga Mussel Viability Test. U.S. Fish and Wildlife Service, Pacific Region. \$24,962.
- 2010-2013: Zanatta, D., L. E. Burlakova, A. Y. Karatayev, R. Krebs, M. Hoggarth, F. de Szalay, J. Bossenbroek, E. Meyer, M. Walsh. Collaborators: M. Schlesinger, R. Haas, T. Crail, P. Badra, N. Welte, and L. Holst. Conservation of Native Freshwater Mussel Refuges in Great Lakes Coastal Zones. Great Lakes Fish and Wildlife Restoration Act, U. S. Fish and Wildlife Service. \$366,412.
- 2010-2013: Pennuto, C. M., A. Y. Karatayev, A. Pérez-Fuentetaja, L.E. Burlakova, D. Bade, G. Matisoff, J. Kramer, and C. Mayer. The Lake Erie Nearshore and Offshore Nutrient Study. U.S. EPA Great Lakes Restoration Initiative. \$615,813.
- 2011-2013: Burlakova, L. E., A.Y. Karatayev, M. E. May, and B. Lang. Survey of Texas hornshell populations in Texas, U.S. Fish and Wildlife Service, and Texas Parks and Wildlife Department, Traditional Section 6, Bilateral species conservation effort in New Mexico and Texas. \$143,000.
- 2011-2012: Burlakova, L. E., A. Y. Karatayev, M. E. May, M. D. Warriner, and B. Gottfried. Survey of threatened freshwater mussels (*Bivalvia: Unionidae*) in Texas. State Wildlife Grant Program, U.S. Fish and Wildlife Service, and Texas Parks and Wildlife Department. \$38,000.

- 2010-2011: Snyder, R. J., L. E. Burlakova, D. B. MacNeill, and A. Y. Karatayev. Evaluating Ponto-Caspian Fishes for Risk of Great Lakes Invasion. U.S. EPA Great Lakes Restoration Initiative. \$111,264.
- 2010-2011: Burlakova, L., A. Karatayev, and M. Goehle. Preliminary Risk Assessment of the Parasites of Aquatic Exotic Invertebrates in the Great Lakes Region. Great Lakes Research Consortium, NYGLPF Small Grants Program. \$9,473.
- 2011-2012: Karatayev, A. Y. and M. Clapsadl. Implementation of the Great Lakes Observing System. US Department of Commerce. \$55,000.
- 2009: Pennuto, C.M., A.Y. Karatayev, A. Pérez-Fuentetaja, L.E. Burlakova, G. Matisoff, J. Kramer, J. Conroy. The Nearshore and Offshore Lake Erie Nutrient Study. U.S. EPA Great Lakes National Program Office, Lake Erie Central and Eastern Basin Studies of Nearshore/Offshore Nutrient Fluxes and Interactions. \$150,000.
- 2008-2009: Burlakova, L. E. and A. Y. Karatayev. State-Wide Assessment of Unionid Diversity in Texas in 2009. State Wildlife Grants, U.S. Fish and Wildlife Service. Texas Parks and Wildlife Department. \$67,514.
- 2007-2008: Burlakova, L. E. and A. Y. Karatayev. State-Wide Assessment of Unionid Diversity in Texas. State Wildlife Grants, U.S. Fish and Wildlife Service. Texas Parks and Wildlife Department. \$69,375.
- 2007-2008: Karatayev, A. Y. and L. E. Burlakova. Effect of Natural Factors on Rate of Spread of Aquatic Invasive Species. Buffalo State College Research Council Incentive Funds. \$6,284.
- 2006-2007: Burlakova, L. E. and A. Y. Karatayev. East Texas Mussel Surveys. State Wildlife Grants, U.S. Fish and Wildlife Service. Texas Parks and Wildlife Department. \$32,056.
- 2006-2007: Karatayev, A. Y. and L. E. Burlakova. Status of Invasive Freshwater Mollusks in Texas. State Wildlife Grants, U.S. Fish and Wildlife Service. Texas Parks and Wildlife Department. \$17,795.
- 2006-2007: Burlakova, L. E. and A. Y. Karatayev. Distributional survey and habitat utilization of freshwater mussels. Texas Water Development Board. \$65,000.
- 2006-2007: Karatayev, A. Y. and L. E. Burlakova. Predicting the spread and ecosystem impact of exotic bivalve *Limnoperna fortunei* on North American freshwaters. SFA Faculty Research Grant. \$15,704.
- 2006-2008: Karatayev, A. Y. and L. E. Burlakova. Potential effects of Zebra mussels in the Madison lakes. Wisconsin DNR Aquatic Invasive Species Grants Program. \$49,037.
- 2004-2006: Burlakova, L. E. and A. Y. Karatayev. Assessing potential impacts of Channeled Applesnail to wetlands in the Galveston Bay watershed. U.S. Fish and Wildlife Service, Texas Commission on Environmental Quality, and USDA Cooperative Agriculture Pest Survey (CAPS) Program for 2005 surveys. \$117,544.
- 2004-2006: Burlakova, L. E. and A. Y. Karatayev. Freshwater mussel survey in Texas. Texas Parks and Wildlife Department. \$120,000.
- 2003-2005: Karatayev, A. Y. and L. E. Burlakova. The impact of invasive molluscs *Corbicula fluminea* and *Dreissena polymorpha* on benthic communities of aquatic ecosystems. SFA Faculty Research Grant. \$15,872.
- 2002: Karatayev, A. Y. Study of benthic communities of lakes Mendota and Monona. Stephen F. Austin State University Research Enhancement Minigrant. \$1,016.

- 2000-2001: Karatayev, A. Y. Determination of the factors affecting the biodiversity of zooplankton and zoobenthos of Belarusian waterbodies. Foundation of Fundamental study of the Republic of Belarus. \$5,000.
- 1997-1998: Karatayev, A. Y. Development of an Informational System "Limnoflora-Limnofauna of Belarus". Belarusian Committee of Ecology. \$13,000.
- 1996-1998: Karatayev, A. Y. European Research on *Dreissena* spp. (Zebra Mussels). U.S. National Geographic Society. \$12,000.
- 1996-1997: Karatayev, A. Y. Study of zebra mussel parasites and estimation of their influence on biodiversity and fish productivity of lakes. Committee for Science and Techniques of the Republic of Belarus. \$16,000.
- 1993-1995: Karatayev, A. Y. Determination of the scientific recovery principles of lakes under strong anthropogenic influence and assessment of the ecological damage caused to lakes by pollution. Belarusian Committee of Ecology. \$12,000.
- 1991-1992: Karatayev, A. Y. Calibration of remote sensing data using ground-based information to estimate anthropogenic eutrophication. Belarusian Committee of Ecology. \$4,000.
- 1991-1992: Karatayev, A. Y. Study of the current structure and ecosystem dynamics of the cooling water reservoir of the Berezovskaya Power Plant. Beloozersky Town Executive Committee. \$6,000.
- 1990-1995: Karatayev, A. Y. Study of the radioecological condition of lakes and swamp ecosystems to estimate the possibility of their exploitation. Belarusian State Committee "Chernobyl." \$14,000.

PROFESSIONAL PUBLICATIONS AND PRESENTATIONS:

Peer-review publications: 170. Publications in proceedings: 38. Presentations at scientific meetings and invited talks: 180.

PEER-REVIEWED PUBLICATIONS (170):

- Karatayev, A. Y., and G. M. Tishchikov. 1979. Effect of heated water of thermal power plant on the growth of *Dreissena polymorpha* Pallas. *Vestnik Belorusskogo Universiteta*. Ser. 2 (3): 39-43. (in Russian).
- Karatayev, A. Y. 1981. Larval stage of *Dreissena polymorpha* Pallas in the Lake Lukomlskoe, a cooling reservoir of thermal power plant. *Vestnik Belorusskogo Universiteta*. Ser. 2 (3): 54-59. (in Russian).
- Lyakhovich, V. P., S. I. Gaurylau, A. Y. Karatayev, I. V. Karatayeva, and T. I. Nyakhayeva. 1982. Annual variations in macrozoobenthos of Lake Lukomlskoe. *Vesti Akademii Navuk BSSR. Seriya biyalagichnikh navuk*. 1: 91-93. (in Belarusian).
- Lyakhovich, V. P., A. Y. Karatayev, and N. N. Antsipovich. 1983. Effect of heated water on the infestation of *Dreissena polymorpha* Pallas with larvae of *Phyllocladum folium* Olfers in Lake Lukomskoe. *Biologiya Vnutrennikh Vod. Informatsionnyi Byulleten*. 58: 35-38. (in Russian).
- Lyakhovich, V. P., A. Y. Karatayev, and P. A. Mitrakhovich. 1983. Effect of *Dreissena polymorpha* Pallas on ecosystem of a eutrophic lake. *Biologiya Vnutrennikh Vod. Informatsionnyi Byulleten* 60: 25-28. (in Russian).

- Karatayev, A. Y., G. M. Tishchikov, and I. V. Karatayeva. 1983. *Dreissena polymorpha* Pallas as a specific community of benthic animals. *Biologiya Vnutrennikh Vod. Informatsionnyi Byulleten.* 61: 18-21. (in Russian).
- Karatayev, A. Y. 1985. Dynamics of the numbers and biomass of *Chironomus plumosus* L. in the thermal power plant's cooling water reservoir. *Biologiya Vnutrennikh Vod. Informatsionnyi Byulleten.* 68: 35-37. (in Russian).
- Karatayev, A. Y., and E. V. Myartseva. 1986. Invertebrates of submerged macrophytes in Lake Lukomskoe. *Vestnik Belorusskogo Universiteta*, Ser. 2 (1): 30-33 (in Russian).
- Karatayev, A. Y. 1986. Dynamics of *Stictochironomus psammophilus* Tchern. in different temperature zones of the thermal power station's cooling water reservoir. *Biologiya Vnutrennikh Vod. Informatsionnyi Byulleten.* 71: 25-28. (in Russian).
- Mitrakhovich, P. A., and A. Y. Karatayev. 1986. The role of *Dreissena polymorpha* Pallas larvae in zooplankton of the cooling reservoir of the Lukoml thermal power plant. *Vestnik Belorusskogo Universiteta*, Ser. 2 (1): 38-41. (in Russian).
- Mitrakhovich, P. A., A. Y. Karatayev, S. A. Boikova, and G. G. Vezhnovets. 1986. Zooplankton of pelagic zone and zoobenthos of profundal zone of the lake. In: V. Kontrimavicius, L. Sushchenia, and J. Virbickas (eds.) Heat Power Engineering and Environment. Volume 5. Base Status of Populations and Communities of Aquatic Animals in the Lake Drukshyai, pp. 39-41. Mokslas Press, Vilnius. (in Russian).
- Karatayev, A. Y. 1987. The dynamics of the vertical macrozoobenthos distribution in different temperature zones of the littoral of the thermal power plant's cooling reservoir. *Biologiya Vnutrennikh Vod. Informatsionnyi Byulleten.* 74: 19-23. (in Russian).
- Karatayev, A. Y., and I. V. Karatayeva. 1987. Effect of heating waters on macrozoobenthos of the littoral of the cooling water reservoir. *Vestnik Belorusskogo Universiteta*, Ser. 2 (1): 46-49. (in Russian).
- Mitrakhovich, P. A., A. Y. Karatayev, G. G. Vezhnovets, and V. M. Samoilenko. 1987. Plankton and benthos of Lake Lepelskoe. *Vestnik Belorusskogo Universiteta*, Ser. 2 (3): 36-41. (in Russian).
- Karatayev, A. Y. 1988. Ecology of Macroinvertebrates of Cooling Reservoirs of Belarus. VINITI Press, Minsk, No. 875-B88 Dep. 178 pp. (in Russian).
- Karatayev, A. Y. 1988. Effect of heating on the invertebrates of the littoral of the thermal power plant's cooling reservoir of Lake Lukomskoe. *Biologiya Vnutrennikh Vod. Informatsionnyi Byulleten.* 80: 32-35. (in Russian).
- Lyakhovich, V. P., A. Y. Karatayev, P. A. Mitrakhovich, L. V. Guryanova, and G. G. Vezhnovets. 1988. Productivity and prospects for utilizing the ecosystem of the Lake Lukoml thermoelectric station cooling reservoir. *Soviet Journal of Ecology.* 18(5): 255-259. Translated into English from *Ecologiya.* No. 5, 1987, pp. 43-48.
- Karatayev, A. Y. 1989. Changes in the average mass of aquatic animals as an indicator of the effect of heating on communities of macroinvertebrates in the cooling reservoirs. *Biologiya Vnutrennikh Vod. Informatsionnyi Byulleten.* 83: 25-28. (in Russian).
- Karatayev, A. Y., and V. P. Lyakhovich. 1989. Changes in benthic communities and fish catching structures in the Lake Beloe after turning it into a thermal power plant's cooling reservoir. *Biologiya Vnutrennikh Vod. Informatsionnyi Byulleten.* 82: 54-57 (in Russian).

- Karatayev, A. Y., V. P. Lyakhovich, L. V. Guryanova, P. A. Mitrakhovich, G. G. Vezhnovets, and V. M. Samoilenco. 1990. Transformation of the ecosystem of eutrophic lake as a result of its utilization as a thermal power plant's cooling reservoir. *Soviet Journal of Ecology*, 20(5): 275-280. Translated into English from *Ecologiya*. No. 5, 1989, pp. 18-24.
- Karatayev, A. Y. 1990. The Effect of Heating on Freshwater Ecosystems. VINITI Press, Minsk, No. 2440-90 Dep. 130 pp. (in Russian).
- Karatayev, A. Y., V. P. Lyakhovich, and O. G. Reznichenko. 1990. Quantitative study of the density, biomass and abundance dynamic. In: G. L. Shkorbatov and Y. I. Starobogatov (eds.). Methods for Study of Bivalvian Molluscs. *Trudy Zoologicheskogo Instituta*. 219: 172-178. (in Russian).
- Karatayev, A. Y., and I. V. Karatayeva. 1992. Some patterns of the vertical distribution of macrozoobenthos in the littoral zone of thermal power plant's cooling reservoirs. *Hydrobiological Journal*. 27(5): 7-15. Translated into English from *Gidrobiologicheskiy Zhurnal*. 27(2), 1991, pp. 19-26.
- Karatayev, A. Y., and L. E. Burlakova. 1992. Changes in tropic structure of macrozoobenthos of an eutrophic lake, after invasion of *Dreissena polymorpha*. *Biologiya Vnutrennikh Vod. Inform. Byull.* 93: 67-71. (in Russian).
- Vezhnovets, G. G., S. A. Boikova, and A. Y. Karatayev. 1992. Changes in the hydrobiological regime of Lake Miorskoe under anthropogenic pollution. *Vestnik Belorusskogo Universiteta*. Ser. 2 (3): 61-66. (in Russian).
- Karatayev, A. Y., I. A. Rudakovskiy, and L. E. Burlakova. 1993. Cs 137 - distribution and dynamic in the lakes with different levels of radioactive contamination. *Vestnik Belorusskogo Universiteta*. Ser. 2 (3): 57-61 (in Russian).
- Karatayev, A. Y., and L. E. Burlakova. 1994. The rate of filtration. In: Y. I. Starobogatov (ed.). Freshwater Zebra Mussel *Dreissena polymorpha* (Pall.) (Bivalvia, Dreissenidae). Systematic, Ecology, Practical Meaning, pp. 132-137. Nauka Press, Moscow. (in Russian).
- Karatayev, A. Y., V. P. Lyakhovich, S. A. Afanasiev, L. E. Burlakova, V. P. Zakutskiy, S. M. Lyakhov, M. P. Miroshnichenko, T. G. Moroz, M. Y. Nekrasova, S. P. Nechvalenko, I. A. Skalskaya, T. G. Kharchenko, and A. A. Protasov. 1994. The place of species in ecosystem. In: Y. I. Starobogatov (ed.). Freshwater Zebra Mussel *Dreissena polymorpha* (Pall.) (Bivalvia, Dreissenidae). Systematic, Ecology, Practical Meaning, pp. 180-195. Nauka Press, Moscow (in Russian).
- Karatayev, A. Y., V. P. Mikheev, S. A. Afanasiev, M. Y. Kirpichenko, A. A. Protasov, L. V. Shevtsova, and T. G. Kharchenko. 1994. Practical uses and control on artificial structures. In: Y. I. Starobogatov (ed.). Freshwater Zebra Mussel *Dreissena polymorpha* (Pall.) (Bivalvia, Dreissenidae). Systematic, Ecology, Practical Meaning, pp. 206-221. Nauka Press, Moscow (in Russian).
- Karatayev, A. Y., V. M. Samoilenco, S. A. Boikova, G. G. Vezhnovets, L. E. Leshkovich, and V. I. Ilyashenko. 1994. Eutrophication of lakes in the Berezinsky Biosphere Reserve. *Vestnik Belorusskogo Universiteta*. Ser. 2 (1): 70-73 (in Russian).
- Lyakhovich, V. P., A. Y. Karatayev, S. M. Lyakhov, N. I. Andreev, S. I. Andreeva, S. A. Afanasiev, A. K. Dyga, V. P. Zakutskiy, V. I. Zolotareva, A. A. Lvova, M. Y. Nekrasova, V. F. Osadchikh, Y. V. Pligin, A. A. Protasov, and G. M. Tishchikov. 1994. Habitation conditions. In: Y. I. Starobogatov (ed.). Freshwater Zebra Mussel *Dreissena polymorpha* (Pall.) (Bivalvia,

- Dreissenidae). Systematic, Ecology, Practical Meaning, pp. 109-119. Nauka Press, Moscow. (in Russian).
- Lvova, A. A., A. Y. Karatayev, and G. E. Makarova. 1994. Planktonic larva. In: Y. I. Starobogatov (ed.). Freshwater Zebra Mussel *Dreissena polymorpha* (Pall.) (Bivalvia, Dreissenidae). Systematic, Ecology, Practical Meaning, pp. 149-155. Nauka Press, Moscow. (in Russian).
- Lvova, A. A., G. E. Makarova, A. F. Alimov, A. Y. Karatayev, M. P. Miroshnichenko, V. P. Zakutskiy, and M. N. Nekrasova. 1994. Growth and production. In: Y. I. Starobogatov (ed.). Freshwater Zebra Mussel *Dreissena polymorpha* (Pall.) (Bivalvia, Dreissenidae). Systematic, Ecology, Practical Meaning, pp. 156-179. Nauka Press, Moscow. (in Russian).
- Zdun, V. I., V. K. Kiselenko, A. Y. Karatayev, and G. E. Makarova. 1994. Parasites. In: Y. I. Starobogatov (ed.). Freshwater Zebra Mussel *Dreissena polymorpha* (Pall.) (Bivalvia, Dreissenidae). Systematic, Ecology, Practical Meaning, pp. 196-205. Nauka Press, Moscow (in Russian).
- Karatayev, A. Y. 1995. The drift of bottom and periphyton macroinvertebrates in thermal power plant's cooling reservoir. *Vestsi Akademii Navuk Belarusi. Seriya biyalagichnikh navuk*, 3: 87-91. (in Belarusian).
- Karatayev, A. Y., and L. E. Burlakova. 1995. Present and further patterns in *Dreissena polymorpha* (Pallas) population development in the Narochanskaya lakes system. *Vestsi Akademii Navuk Belarusi. Seriya biyalagichnikh navuk*. 3: 95-99 (in Belarusian).
- Karatayev, A. Y., and L. E. Burlakova. 1995. The role of *Dreissena* in lake ecosystems. *Russian Journal of Ecology*. 26(3): 207-211. Translated into English from *Ecologiya*. 26(3), 1995, pp. 232-236.
- Karatayev, A. Y., V. M. Samoilenco, L. E. Burlakova, Z. K. Kartashevich, and A. N. Rachevskij. 1995. Recommendations for the Restoration of Lakes under Strong Anthropogenic Influence. Belgosuniversitet Press, Minsk. 73 p. (in Russian).
- Karatayev, A. Y., L. E. Burlakova, I. A. Rudakovskiy, and Z. K. Kartashevich. 1996. Radioactive contamination of Belarusian lakes. In: T. V. Belookaya et al. (eds.) Ecological anthropology. Annual issue, pp. 46-58. Belarusian Committee "Deti Chernobilya" Press, Minsk (in Russian with English summary).
- Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. 1997. The effect of *Dreissena polymorpha* Pallas invasion on aquatic communities in Eastern Europe. *Journal of Shellfish Research*. 16(1): 187-203.
- Molloy, D. P., A. Y. Karatayev, L. E. Burlakova, D. P. Kurandina, and F. Laruelle. 1997. Natural Enemies of Zebra Mussels: Predators, Parasites and Ecological Competitors. *Reviews in Fisheries Science*. 5(1): 27-97.
- Burlakova, L. E., A. Y. Karatayev, and D. P. Molloy. 1998. Field and laboratory studies of zebra mussel (*Dreissena polymorpha*) infection by the ciliate *Conchophthirus acuminatus* in the Republic of Belarus. *Journal of Invertebrate Pathology*. 71(3): 251-257.
- Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. 1998. Physical factors that limit the distribution and abundance of *Dreissena polymorpha* (Pall.). *Journal of Shellfish Research*. 17(4): 1219-1235.

- Burlakova, L. E., A. Y. Karatayev, and D. K. Padilla. 2000. The impact of *Dreissena polymorpha* (Pallas) invasion on unionid bivalves. *International Review of Hydrobiology*. 85(5-6): 529-541.
- Karatayev, A. Y., L. E. Burlakova, and D. P. Molloy. 2000. Seasonal dynamics of *Conchophthirus acuminatus* (Ciliophora, Conchophthiridae) infection in *Dreissena polymorpha* and *D. bugensis* (Bivalvia, Dreissenidae). *European Journal of Protistology*. 36: 397-404.
- Karatayev, A. Y., L. E. Burlakova, D. P. Molloy, and L. K. Volkova. 2000. Endosymbionts of *Dreissena polymorpha* (Pallas) in Belarus. *International Review of Hydrobiology*. 85(5-6): 543-559.
- Kraft, C. E., P. J. Sullivan, A. Y. Karatayev, L. E. Burlakova, J. C. Nekola, L. E. Johnson, and D. K. Padilla. 2002. Landscape patterns of an aquatic invader: assessing dispersal extent from spatial distributions. *Ecological Applications*. 12(3): 749-759.
- Karatayev, A. Y., L. E. Burlakova, D. P. Molloy, L. K. Volkova and V. V. Volosyuk. 2002. Field and laboratory studies of *Ophryoglena* sp. (Ciliata: Ophryoglenidae) infection in zebra mussels, *Dreissena polymorpha* (Bivalvia: Dreissenidae). *Journal of Invertebrate Pathology*. 79: 80-85.
- Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. 2002. Impacts of zebra mussels on aquatic communities and their role as ecosystem engineers. In: Leppäkoski, E., S. Gollasch & S. Olenin (eds.). *Invasive Aquatic Species of Europe - Distribution, Impacts and Management*. Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 433-446.
- Karatayev, A. Y., S. E. Mastitsky, L. E. Burlakova, D. P. Molloy, and G. G. Vezhnovets. 2003. Seasonal dynamics of endosymbiotic ciliates and nematodes in *Dreissena polymorpha*. *Journal of Invertebrate Pathology*. 83 (1): 73-82.
- Karatayev, A. Y., L. E. Burlakova, T. Kesterton, and D. K. Padilla. 2003. Dominance of the Asiatic clam, *Corbicula fluminea* (Müller) in the benthic community of a reservoir. *Journal of Shellfish Research*. 22(2): 487-493.
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Karatayev, A. Y., L. E. Burlakova, R. G. Howells, R. G. McMahon. Channeled applesnail: Distribution, population dynamics, reproduction potential and threat to coastal ecosystem. Invited talk at the Galveston Bay Estuary Program, Texas Commission on Environmental Quality, February 27, 2004. Webster, TX.

Karatayev, A. Y. Zebra mussel: population biology, vectors of spread, ecosystem impact. Invited talk at the Galveston Bay Estuary Program, Texas Commission on Environmental Quality. February 27, 2004. Webster, TX.

Karatayev, A. Y., L. E. Burlakova, R. G. Howells, B. D. Sewell, and R. L. Mood. Distribution and ecological impact of Asiatic clam impact on freshwater in Texas. 107th Annual Meeting of the Texas Academy of Sciences. March 4-6, 2004. Kerrville, TX.

Karatayev, A. Y., and L. E. Burlakova. Monitoring of Unionid Populations at Texas Army National Guard Facility Camp Maxey. 2nd Annual Texas National Guard Natural Resources Conference, May 14-16, 2004. Austin, TX.

Karatayev, A. Y., D. K. Padilla, D. Boltovskoy, L. E. Burlakova, and D. Minchin. Changes in global economy and trade, and potential spread of exotic freshwater bivalves. 13th International Conference on Aquatic Nuisance Species. September 20-24, 2004. Ennis, Ireland.

Karatayev A. Y., L. E. Burlakova, and D. K. Padilla. Distribution and Impacts of *Dreissena polymorpha* and *Corbicula fluminea*, Two Freshwater Exotic Suspension Feeders. Changes in global economy and trade, and potential spread of exotic freshwater bivalves. 13th International Conference on Aquatic Nuisance Species. September 20-24, 2004. Ennis, Ireland.

Karatayev A. Y., and L. E. Burlakova. *Corbicula fluminea* Distribution in Texas. 108th Annual Meeting of the Texas Academy of Sciences. March 3-5, 2005. Edinburg, TX.

Karatayev A. Y., D. K. Padilla, D. Boltovskoy, L. E. Burlakova, and D. Minchin. Global spread of exotic freshwater bivalves. 97th Annual Meeting of National Shellfisheries Association, April 10-14, 2005. Philadelphia, PA.

Karatayev A. Y., L. E. Burlakova, D. K. Padilla, and D. Boltovskoy. Potential spread and ecosystem impacts of *Limnoperna fortunei* in Texas. 109th Annual Meeting of the Texas Academy of Sciences. March 3-5, 2006. Beaumont, TX.

- Karatayev A. Y., D. Boltovskoy, D. K. Padilla, and L. E. Burlakova. Could *Limnoperna fortunei* be worse than *Dreissena polymorpha*? Potential spread and ecosystem impacts. 98th Annual Meeting of National Shellfisheries Association. March 2006. Monterey, CA.
- Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. *Dreissena polymorpha* in Belarus: 200 years of invasion, 70 years of research. 14th International Conference on Aquatic Nuisance Species. May 2006. Key Biscayne, FL.
- Karatayev A. Y. Aquatic Invasive Species: Ongoing projects. July 2006. Naroch Biological Station, Naroch, Belarus.
- Karatayev A. Y., L. E. Burlakova, D. Boltovskoy, & D. K. Padilla. Potential effect of introduction of exotic bivalve *Limnoperna fortunei* on coastal ecosystems. 8th Biennial State of the Bay Symposium “Charting the Course to 2015: People, the Bay, and the Future.” January 23-25, 2007. Galveston, TX.
- Karatayev A. Y., L. E. Burlakova, D. Boltovskoy, and D. K. Padilla. Bivalve *Limnoperna fortunei*: another potential invader in Texas. Big Thicket Science Conference. March 22-25, 2007. Beaumont, TX.
- Karatayev A. Y., D. Boltovskoy, D. K. Padilla, L. E. Burlakova, and. V. A. Karatayev. *Limnoperna fortunei* – a new potential invader to North America. Invited seminar, University of Florida, Department of Fisheries and Aquatic Sciences. April 13, 2007. Gainesville, FL.
- Karatayev A. Y., D. Boltovskoy, D. K. Padilla, L. E. Burlakova, and. V. A. Karatayev. *Limnoperna fortunei* – a new potential invader to North America: could it be worse than zebra mussel? Invited seminar, Trout Lake Station, University of Wisconsin-Madison. June 13, 2007. Madison, WI.
- Karatayev, A. Y., L. E. Burlakova, S. M. Mastitsky, and S. Olenin. Aquatic exotic species in Belarus: Past, Current and Future Invasions. Abstracts of 15th International Conference on Aquatic Nuisance Species. September 23-27, 2007. Nijmegen, The Netherlands. P. 33.
- Karatayev, A. Y., L. E. Burlakova, D. K. Padilla, S. Olenin, and S. M. Mastitsky. Invaders are not a random selection of species. Abstracts of 15th International Conference on Aquatic Nuisance Species. September 23-27, 2007. Nijmegen, The Netherlands.
- Karatayev, A. Y., and L. E. Burlakova. Zebra Mussel Impacts on Wisconsin’s Lakes: Long-term dynamics and current status of benthic community of Lake Mendota, and potential effects of Zebra mussels. 30th Wisconsin Lakes Convention. April 17-19, 2008. Green Bay, WI.
- Karatayev, A. Y., L. E. Burlakova, D. K., Padilla, S. E. Mastitsky, and S. Olenin. How freshwater macroinvertebrate invaders differ from native species? IAGLR's 51st Annual Conference on Great Lakes Research (The International Association for Great Lakes Research), May 19-23, 2008. Trent University, Peterborough, Ontario, Canada.
- Karatayev, A. Y., L. E. Burlakova, D. K. Padilla, S. E. Mastitsky, and S. Olenin. Aquatic invaders are not a random selection of species. 2008 American Society of Limnology and Oceanography Summer Meeting, June 8-13, 2008. St. John’s, Newfoundland and Labrador, Canada.
- Karatayev, A. Y., L. E. Burlakova, D. K. Padilla, S. Olenin, and S. M. Mastitsky. Invaders are not a random selection of species. Invited talk at the Cornell University Biological Field Station. June 17, 2008. Bridgeport, NY.
- Karatayev, A. Y., L. E. Burlakova, D. K. Padilla, D. Boltovskoy, D. Minchin, S. E. Mastitsky, and V. A. Karatayev. Change in global economies and trade: the potential spread of exotic freshwater

bivalves. Invited talk at EEB seminar at the University of Buffalo. February 27, 2009. Buffalo, NY.

Karatayev, A. Y., D. Boltovskoy, L. E. Burlakova, D. Cataldo, V. A. Karatayev, F. Sylvester, and A. Marinelarena. Colonization pattern, population density and ecosystem impact of the Golden mussel *Limnoperna fortunei*. 16th International Conference on Aquatic Nuisance Species. April 19-23, 2009. Montreal, Canada.

Karatayev, A. Y., V. A. Karatayev, L. E., Burlakova, and D. Boltovskoy. Could *Limnoperna fortunei* be worse than *Dreissena polymorpha*? Population density and potential impacts. 16th International Conference on Aquatic Nuisance Species. April 19-23, 2009. Montreal, Canada.

Karatayev, A. Y., L. E. Burlakova, V. A. Karatayev, and D. K. Padilla. Vectors of introduction spread and potential impacts of exotic freshwater gastropods in Southern US. 16th International Conference on Aquatic Nuisance Species. April 19-23, 2009. Montreal, Canada.

Karatayev, A. Y., L. E. Burlakova, S. E. Mastitsky, D. K. Padilla, and E. L. Mills. Invasion paradox: why *Dreissena rostriformis bugensis*, being less invasive, outcompete *D. polymorpha*? 52nd Annual Conference on Great Lakes Research. The International Association for Great Lakes Research. May 18-22, 2009. Toledo, OH.

Karatayev, A. Y., L. E. Burlakova, C. Pennuto, and C. P. Basiliko. Dominance of exotic invertebrates changes the Lake Erie benthic community. 6th Biennial Conference of the Lake Erie Millennium Network. April 27-29, 2010. Windsor, Ontario, Canada.

Karatayev, A. Y., L. E. Burlakova, S. E. Mastitsky, D. K. Padilla, and M. Hajduk. Contrasting survival and growth of zebra mussels and quagga mussels under different temperature regimes. 53rd Annual Conference on Great Lakes Research. The International Association for Great Lakes Research. May 17-21, 2010. Toronto, Ontario, Canada.

Karatayev, A. Y., L. E. Burlakova, S. E. Mastitsky, D. K. Padilla, E. L. Mills, and V. A. Karatayev. Competitive ability versus invasion rate: which is a better invader, *Dreissena polymorpha* or *Dreissena rostriformis bugensis*? 2010 American Society of Limnology and Oceanography ASLO/NABS Summer Meeting. June 6-10, 2010. Santa Fe, NM.

Karatayev, A. Y., L. E. Burlakova, S. E. Mastitsky, D. K. Padilla, and E. L. Mills. Invasion paradox: why *Dreissena rostriformis bugensis*, being less invasive, outcompete *D. polymorpha*? 17th International Conference on Aquatic Nuisance Species. August 29-September 2, 2010. San Diego, CA.

Karatayev, A. Y. Invasive Bivalves as Ecosystem Engineers. Invited Seminar at NOAA-GLERL. November 12, 2010. Ann Arbor, MI.

Karatayev, A. Y., S. E. Mastitsky, L. E. Burlakova, V. A. Karatayev, D. B. Conn, and M. M. Hadjuk. Exotic molluscs in the Great Lakes Region host pathogenic trematodes. 54th Annual Conference on Great Lakes Research. The International Association for Great Lakes Research. May 30-June 3, 2011. Duluth, MN.

Karatayev, A. Y. L. E. Burlakova, and D. K. Padilla. Distribution, population dynamics and ecosystem impacts of *Dreissena polymorpha* and *Dreissena rostriformis bugensis*. 4th International Conference 'Lake Ecosystems: Biological Processes, Anthropogenic Transformation, Water Quality.' September 12-17, 2011. Naroch-Minsk, Belarus.

Karatayev, A. Y. Invasive bivalves as ecosystem engineers. Invited Seminar at Ecology and Evolutionary Biology Seminar, SUNY Albany. February 3, 2012. Albany, NY.

Karatayev, A. Y., Burlakova, L. E., and S. E. Mastitsky. Predicting the zebra mussels spread: What can we learn from 200 years of continuous invasion. 55th Annual Conference on Great Lakes Research. May 13-17, 2012. Cornwell, Ontario, Canada.

Karatayev, A. Y. Parasites of exotic species in invaded areas: Does lower diversity mean lower epizootic impact? Invited talk at the Cornell University Biological Field Station. June 20, 2012. Bridgeport, NY.

Karatayev, A. Y., T. D. Miller, and L. E. Burlakova. Long-term changes in unionid assemblages in the Rio Grande, one of the World's top 10 rivers at risk. International Meeting on Biology and Conservation of Freshwater Bivalves. September 2012. Bragança, Portugal.

Karatayev, A. Y. 35 years of research. Invited Presentation at EPA Great Lakes National Program Office. November 2012. Chicago, IL.

Karatayev, A. Y., L. E. Burlakova, C. M. Pennuto, J. Ciborowsky, V. A. Karatayev, P. Juette, and M. Clapsadl. Twenty-five years of changes in *Dreissena* spp. populations in Lake Erie. 56th Annual Conference on Great Lakes Research. June 3-6, 2012. West Lafayette, IN.

Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. Spread, population dynamics and ecosystem impacts of zebra versus quagga mussels: What do we know and what we do not? 18th International Conference on Aquatic Invasive Species. April 21-25, 2013. Niagara Falls, Ontario, Canada.

Karatayev, A. Y., L. E. Burlakova, S. E. Mastitsky, and D. K. Padilla. Predicting the Zebra Mussels Spread: What Can We Learn From 200 Years of Continuous Invasion? 18th International Conference on Aquatic Invasive Species. April 21-25, 2013. Niagara Falls, Ontario, Canada.

Karatayev, A. Y., L. E. Burlakova, and T. D. Miller. Long-term changes in the distribution range and population size of Texas hornshell *Popenaias popeii*. 8th Biennial Symposium of the Freshwater Mollusk Conservation Society, March 10-14, 2013. Guntersville, AL.

Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. The most aggressive freshwater invaders: Parallels, contrasts, spread, and ecosystem impacts of zebra and quagga mussels. World Congress of Malacology. July 22-26, 2013. Azores, Portugal.

Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. Spread, population dynamics and ecosystem impacts of zebra versus quagga mussels. 57th Annual Conference on Great Lakes Research. May 26-30, 2014. Hamilton, Ontario, Canada.

Karatayev, A. Y., T. D. Miller, and L. E. Burlakova. Long-term changes in the distribution range and population size of endemic unionid bivalve *Popenaias popeii*. Invited talk presented at Berry College seminar. February 4, 2014. Rome, GA.

Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. Zebra versus quagga mussels: spread, population dynamics, and ecosystem impacts of zebra versus quagga mussels. 15th World Lake Conference. September 1 -5, 2014. Perugia, Italy.

Karatayev, A. Y., L. E. Burlakova, and K. Mehler. Preliminary Results of *Dreissena* spp. study in Lake Erie using traditional sampling and Video Imaging Analysis. Invited talk at EPA Great Lakes National Program Office. February 12, 2015. Chicago, IL.

Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. Difference in spread, population dynamics, and ecosystem impacts of two *Dreissena* congeners. ASLO Aquatic Sciences Meeting. February 2015. Granada, Spain.

Karatayev, A. Y., L. E. Burlakova, and K. Mehler. Long-term dynamics of *Dreissena* spp. in Lake Erie: Insights for population boom and bust. 58th Annual Conference on Great Lakes Research. May 25-29, 2015. Burlington, VT.

Karatayev, A. Y., L. E. Burlakova, K. Mehler, and R. P. Barbiero. Environmental factors affection distribution and population dynamics of *Dreissena* spp. in Lake Erie. Invited talk at the Cornell University Biological Field Station. June 18, 2015. Bridgeport, NY.

Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. Predicting the spread of aquatic invaders: What can we learn from 200 years of continuous invasion by zebra mussels? Ecological Society of America, 100th Annual Meeting. August 9-14, 2015. Baltimore, MD.

Karatayev, A. Y. Lake Erie and Lake Michigan Benthos: Cooperative Science and Monitoring Initiative. 9th Biennial State of Lake Michigan/15th Annual Great Lakes Beach Association Joint Conference. October 28-30, 2016. Acme, MI.

Karatayev, A. Y., L. E. Burlakova, and D. K. Padilla. Endangered or invaders? Molluscs - the most imperiled group of freshwater invertebrates includes the highest number of invaders. Second International Meeting on Biology and Conservation of Freshwater Bivalves. October 4-8, 2015. Buffalo, NY.

Karatayev, A. Y., K. Mehler, V. Karatayev, and L. E. Burlakova. Aliens, GoPros, and Popcorn: counting invasive mussels on the bottom of Lake Michigan. Invited talk presented at EPA Great Lakes National Program Office. February 17, 2016. Chicago, IL.

Karatayev, A. Y., K. Mehler, and L. E. Burlakova. Lake Erie and Lake Michigan Benthos: Cooperative Science and Monitoring Initiative. Invited talk presented at EPA Great Lakes National Program Office. February 17, 2016. Chicago, IL.

Karatayev, A. Y., L. E. Burlakova, K. Mehler, V. A. Karatayev, T. F. Nalepa, A. K. Baldridge, and E. K. Hinchey. Underwater video is an effective tool to reveal *Dreissena* spatial distribution and biomass. 59th Annual Conference on Great Lakes Research. June 6-10, 2016. Guelph, Ontario, Canada.

Karatayev, A. Y., L. E. Burlakova, K. Mehler, S. A. Bocaniov, P. D. Collingsworth, G. Warren, R. T. Kraus, and E. K. Hinchey. Bottom hypoxia is a major driver of *Dreissena* spp. distribution in Lake Erie. A.Y. 33rd Congress of International Society of Limnology. 31 July-5 August 2016. Torino, Italy.

Karatayev, A. Y., L. E. Burlakova, K. Mehler, V. A. Karatayev, T. F. Nalepa, A. K. Elgine, and E. K. Hinchey. Underwater video is an effective tool to reveal *Dreissena* spatial distribution and densities. Cooperative Science and Monitoring Initiative – Lake Michigan. January 26, 2017. Chicago, USA.

Karatayev, A.Y., L. E. Burlakova, K. Mehler, S. A. Bocaniov, P. D. Collingsworth, G. Warren, R.T. Kraus, and E. K. Hinchey. Biomonitoring using invasive species in a large lake: *Dreissena* distribution maps hypoxia zones. Status of Lake Erie: Understanding the Nearshore and Its Connections. The 8th Binational Meeting of the Lake Erie Millennium Network. February 21-23, 2017. Windsor, Ontario, Canada.

Karatayev, A. Y., L. E. Burlakova, K. Mehler, V. A. Karatayev, T. F. Nalepa, A. K. Elgine, and E. K. Hinchey. Underwater video is an effective tool to reveal *Dreissena* spatial distribution. ASLO Aquatic Sciences Meeting. February 26-March 3, 2017. Honolulu, HI.

Karatayev, A. Y., L. E. Burlakova, K. Mehler, V. A. Karatayev, T. F. Nalepa, A. K. Elgine, and E. K.

Hinchey. Underwater video is an effective tool to reveal *Dreissena* spatial distribution. 10th Biennial Symposium of the Freshwater Mollusk Conservation Society. March 26-30, 2017. Cleveland, OH.

Karatayev, A. Y., V. A. Karatayev, L. E. Burlakova, K. Mehler, M. Clapsadl, M. Rowe. *Dreissena* growth variation in time and space: Lessons from Lake Erie. 60th Annual Conference on Great Lakes Research. May 15-19, 2017. Detroit, MI.

Karatayev, A. Y., Burlakova, L.E., Mehler, K., Karatayev, V., Nalepa, T., Elgin, A., Hinchey, E. Underwater video is an effective tool to reveal *Dreissena* spatial distribution. 20th International Conference on Aquatic Invasive Species, October 22-26, 2017. Fort Lauderdale, FL.

Karatayev, A. Y., L. E. Burlakova, K. Mehler, V. Karatayev, T. Nalepa, A. Elgin, and E. Hinchey. Underwater video is an effective tool to reveal *Dreissena* spatial distribution. 2017 State of Lake Michigan Conference. November 7-10, 2017. Green Bay, WI.

Karatayev, A., L. Burlakova, and K. Mehler. Preliminary results of *Dreissena* survey in Lake Huron CSMI 2017. Invited talk presented at EPA Great Lakes National Program Office. February 14, 2018. Chicago, IL.

Karatayev, A., L. Burlakova, V. Karatayev, K. Mehler, and T. Nalepa. Population dynamics of zebra and quagga mussels in the Great Lakes: Cross-lakes comparison. 61st Annual Conference on Great Lakes Research. June 18-22, 2018. Toronto, Canada.

Karatayev, A., L. Burlakova, and D. Padilla. Can introduced species replace lost biodiversity? A test with freshwater molluscs. Invited talk at the Cornell University Biological Field Station. July 3, 2018. Bridgeport, NY.

Karatayev, A., L. Burlakova, A. Karatayev, K. Mehler, A. Elgin, and T. Nalepa. Population dynamics of *Dreissena polymorpha* and *D. rostriformis bugensis* in the Laurentian Great Lakes. International Conference “Big Lakes, Small World”, European Large Lakes Symposium and International Association for Great Lakes Research (ELLS-IAGLR-2018). September 23-28, 2018. Evian, France.

Karatayev, A., S. Daniel., L. Burlakova, K. Mehler, P. Hebert, M. E. Pfender, D. Lodge, and A. Trebitz. Great Lakes DNA Barcode Reference Library: Mollusca, Annelida, and Minor Phyla. State of Lake Superior Conference. October 11, 2018. Houghton, MI.

Karatayev, A. Y., L. E. Burlakova, V. Karatayev, M. Rowe, T. Nalepa, and A. Elgin. Lake morphometry determines *Dreissena* invasion dynamics. ASLO Aquatic Sciences Meeting. February 23-March 2, 2019. San Juan, Puerto Rico.

Karatayev, A. Y., L. E. Burlakova, V. Karatayev, M. Rowe, K. Mehler, A. Elgin, and T. Nalepa. Lake morphometry determines *Dreissena* invasion dynamics. Invited talk presented at Department of Biology Laval University seminar. May 2, 2019. Quebec, Canada.

Karatayev, A. Application of drop-down camera to monitor invasive species in the Great Lakes. Invited talk presented at EPA Great Lakes National Program Office. May 8, 2019. Chicago, IL.

Karatayev, A., L. Burlakova, K. Mehler, A. Elgin, and T. Nalepa. Long-term population dynamics of dreissenids in lakes Michigan and Huron. 62nd Annual Conference on Great Lakes Research. June 10-14, 2019. Brockport, NY.

Karatayev, A. Benthic food webs. Invited talk presented at Lake Ontario CSMI Data Synthesis and Reporting for Management and Policy Making Workshop. June 19-20, 2019. Buffalo, NY.

- Karatayev, A., L. Burlakova, K. Mehler, V. Karatayev, M. Rowe, A. Elgin, and T. Nalepa. Lake morphometry determines *Dreissena* invasion dynamics. 21st International Conference on Aquatic Invasive Species. October 27-31, 2019. Montreal, Canada.
- Karatayev, A. Y. Environmental problems of American Great Lakes. Invited talk presented at Siberian Federal University. October 2020. Krasnoyarsk. Russia.
- Karatayev, A. Y. Invasive species. Invited talk presented at Siberian Federal University. October 2020. Krasnoyarsk. Russia.
- Karatayev, A., L. Burlakova, and K. Mehler A Recent status of *Dreissena* spp. populations in lakes Ontario and Erie. Invited talk presented at EPA Great Lakes National Program Office. February 25, 2020. Chicago, IL.
- Karatayev, A., L. Burlakova, K. Mehler, E. Hinckley, M. Wick, M. Bakowska, and N. Mrozinska. Rapid assessment of *Dreissena* population in Lake Erie using underwater videography. Invited talk presented at EPA Great Lakes National Program Office. February 17, 2021. Chicago, IL.
- Karatayev, A., L. Burlakova, K. Mehler, and A. Hrycik. Benthos of Laurentian Great Lakes: Inventory of lake-wide surveys. Invited talk presented at EPA Great Lakes National Program Office. February 17, 2021. Chicago, IL.
- Karatayev, A. Y., L. E. Burlakova, V. Karatayev, M. Rowe, K. Mehler, A. Elgin, and T. Nalepa. Lake morphometry determines *Dreissena* invasion dynamics. Invited talk presented at Department of Physics and Astronomy, University of Minnesota Duluth. March 3, 2021. Duluth, MN.
- Karatayev, A., L. Burlakova, K. Mehler, A. K. Elgin, L. G. Rudstam, J. M. Watkins, and M. Wick. *Dreissena* in Lake Ontario 30 years after the invasion. State of Lake Ontario Conference. March 9-11, 2021. Virtual.
- Karatayev, A., L. Burlakova, and V. Karatayev. Lake morphometry determines *Dreissena* invasion dynamics. Invited talk presented at SeeWandel Thematic Working Group “Neozoa & Climate Change.” April 25, 2022. Switzerland. Virtual.
- Karatayev, A., L. Burlakova, K. Mehler, E. Hinckley, and A. Hrycik. Rapid assessment of exotic dreissenids in Laurentian Great Lakes using underwater videography. 22nd International Conference on Aquatic Invasive Species. April 18-22, 2022. Virtual. Oostende, Belgium.
- Karatayev, A. Y., L. E. Burlakova, A. R. Hrycik, S. E. Daniel, K. Mehler, E. K. Hinckley, R. Dermott, G. W. Kennedy, and R. Griffiths. Long-term dynamics of Lake Erie benthos: One lake, three distinct communities. State of Lake Erie Conference. March 16-18, 2022. Cleveland, OH.
- Karatayev, A. Y., L. E. Burlakova, A. R. Hrycik, S. E. Daniel, K. Mehler, E. K. Hinckley, R. Dermott, G. W. Kennedy, and R. Griffiths. Long-term dynamics of Lake Erie benthos: One lake, three distinct communities. Joint Aquatic Sciences Meeting. May 14-20, 2022. Grand Rapids, MI.
- Karatayev, A. *Dreissena* population assessment in lakes Michigan and Huron. Invited talk presented at EPA Great Lakes National Program Office. October 17, 2022. Chicago, IL.
- Karatayev, A. *Dreissena* in Lake Ontario 30 years after the invasion. State of Lake Ontario Conference. Invited talk presented at Interagency Ecological Restoration Quality Committee. October 27, 2022. Virtual.
- Karatayev, A. Y., and L. E. Burlakova. Video *Dreissena* assessment. Cooperative Science and Monitoring Initiative Lake Michigan Sampling Prospectus. Invited talk presented. February 22, 2023. Virtual.

Karatayev, A. Y., and L. E. Burlakova. *Dreissena* in the Great Lakes: What have we learned in 35 years of invasion. 13th Biennial Freshwater Mollusk Conservation Society Symposium. April 10-14, 2023. Portland, OR.

Karatayev, A. Y., and L. E. Burlakova. *Dreissena* in the Great Lakes: What have we learned in 35 years of invasion. 66th Annual Conference on Great Lakes Research. May 8-12, 2023. Toronto, Canada.

Karatayev, A. Y. and L. E. Burlakova. *Dreissena* in the Great Lakes: What have we learned in 35 years of invasion. Invasive Mussel Collaborative Webinar. May 30, 2023. Virtual.

Karatayev A. Y., and L. E. Burlakova. Plenary lecture “Quagga mussel in the Great Lakes: What have we learned in 35 years of invasion.” SeeWandel Scientific Symposium. June 13, 2023. Constance, Germany.

Karatayev A. Y., and L. E. Burlakova. Quagga mussel in the Great Lakes: What have we learned in 35 years of invasion. SeeWandel Exchange with practice representatives. June 14, 2023. Constance, Germany.

Karatayev, A. Y. and L. E. Burlakova. Quagga mussels in the Great Lakes: what have we learned in 35 years of invasion. Invited talk at EAWAG Aquatic Ecology Seminar. June 12, 2023. Zurich, Switzerland.

Karatayev A. Y., and L. E. Burlakova. Population dynamics and population assessment of dreissenids I lakes Michigan and Huron using conventional methods and videography. Invited talk presented at EPA Great Lakes National Program Office. February 27, 2024. Chicago, IL.

Karatayev A. Y., and L. E. Burlakova. Quagga mussels in North America - What do we still not know? Invited talk at the 1st meeting SeeWandel-Climate Thematic Working Group “Importance of the quagga mussel.” EAWAG. March 19, 2024. Dübendorf, Switzerland.

Karatayev A. Y., and L. E. Burlakova. Quagga mussels in the Great lakes: What have we learn in 35 years of invasion. Invited talk at the PEAK course on quagga mussels, EAWAG. March 20, 2024. Zurich, Switzerland.

Karatayev A. Y., and L. E. Burlakova. Quagga mussels in the Great lakes: What have we learn in 35 years of invasion. Invited talk at Lake Constance Water Supply. March 22, 2024. Bodensee-Wasserversorgung, Germany.

Karatayev, A. Y., V. A. Karatayev, L. G. Rudstam, L. E. Burlakova, B. V. Adamovich, H. A. Zhukava, K. T. Holeck, A. L. Hetherington, J. R. Jackson, C. Balogh, Z. Serfőző, C. W. Hotaling, T. V. Zhukova, T. M. Mikheyeva, R. Z. Kovalevskaya, O. A. Makarevich, and D. V. Kruk. 2024. Serial invasions can disrupt the time course of ecosystem recovery. 37th Congress of International Society of Limnology. May 5-9th 2024. Iguazu, Brazil.

Karatayev, A. Y., and L. E. Burlakova. *Dreissena* in Great Lakes: Population dynamics and population assessment using conventional method and videography. 67th Annual Conference on Great Lakes Research. May 20-24, 2024. Windsor, Canada.

Karatayev, A. Y., V. A. Karatayev, L. G. Rudstam, L. E. Burlakova, B. V. Adamovich, H. A. Zhukava, K. T. Holeck, A. L. Hetherington, J. R. Jackson, C. Balogh, Z. Serfőző, C. W. Hotaling, T. V. Zhukova, T. M. Mikheyeva, R. Z. Kovalevskaya, O. A. Makarevich, and D. V. Kruk. Ecosystem responses to repeated mussels invasions in polymictic lakes. Ecological Society of America Annual Meeting. August 4-9, 2024. Long Beach, CA.

Karatayev, A. Y. Ecosystem response to repeated mussel invasion. SeeWandel Climate - Modelling the consequences of climate change and neobiota for the Lake Constance. EAWAG. December 17, 2024. Dübendorf, Switzerland.

Karatayev A. Y., L. E. and Burlakova. Quagga mussels in the Great Lakes: Spread, distribution, and ecosystem impacts Invited talk at Commission internationale pour la protection des eaux du Léman. January 28, 2025. Nyon, Switzerland.

Karatayev, A., and L. E. Burlakova. Zebra and quagga mussels in the great lakes: What have we learned in 35 years of invasion. Invited talk at Research Centre in Biodiversity and Genetic Resources (BIPOLIS/CIBIO). March 7, 2025. Vairão, Portugal.

Karatayev, A., and L. E. Burlakova. Zebra and quagga Mussels: Biology, spread, impact, and control. Invited talk at Water utility company. March 10, 2025. Beja, Portugal.

Karatayev A. Y., and L. E. Burlakova. Multiple invasions decimate the most imperiled freshwater invertebrates. Extended flush talk at EAWAG Aquatic Ecology Seminar. April 2, 2025. Zurich, Switzerland.

Karatayev, A., and L. E. Burlakova. Benthos of the Great Lakes: Past, present, and a look into the future. Invited talk presented at EPA Great Lakes National Program Office. April 3, 2025. Chicago, IL.

Karatayev A. Y., L. E. Burlakova, V. A. Karatayev, J. E. Cooper, and L. G. Rudstam. Multiple invasions decimate the most imperiled freshwater invertebrates. 14th Biennial Freshwater Mollusk Conservation Society Symposium. May 12-16, 2025. Ann Arbor-Ypsilanti, MI.

Karatayev, A. Y., and L. E. Burlakova. Benthic research in the Laurentian Great Lakes: Past, present, and a look into the future. 68th Annual Conference on Great Lakes Research. June 2-6, 2025. Milwaukee, WI.

GRADUATE RESEARCH:

Candidate Dissertation Title: Ecology of *Dreissena polymorpha* Pallas and its effects on macrozoobenthos of the thermal power plant's cooling reservoir. Supervisor V. P. Lyakhovich. 1977-1983.

Doctoral Dissertation Title: The structure and function of benthic and periphyton's communities in cooling reservoirs. 1984-1992.

PROFESSIONAL SOCIETIES:

Association for the Sciences of Limnology and Oceanography

International Association for Great Lake Research

Great Lakes Research Consortium

Freshwater Molluscs Conservation Society

Ecological Society of America

Society of International Limnology

TEACHING EXPERIENCE:

Belarus:

Hydrobiology (Lecture)

Global Ecology (Lecture)

General Ecology (Lecture and Lab)
Aquatic Ecology (Lecture and Lab)

USA:

Introductory Zoology
Limnology (Lecture and Lab)
Marine Biology (Lecture and Lab)
Senior Seminar in Exotic Species
Pollution of Aquatic Environment (Lecture)
Waste Water Analysis (Graduate course, Lecture and Lab)
Advanced Limnology (Graduate course, Lecture and Lab)
Plankton Ecology (Graduate course, Lecture and Lab)
Aquatic Ecology (Graduate course, Lecture)

GRADUATE STUDENTS (Major Advisor):

Nataliya M. Lisovskaya (1998-2000), M.Sc., Belarusian State University, Belarus
Sergey E. Mastitsky (2000-2004), Ph.D., Belarusian State University, Belarus
Tom Kesterson (2001-2003), M.Sc., Stephen F. Austin State University
Andrei Nesterovitch (2002-2003), M.Sc., Stephen F. Austin State University
Michael Houston (2002-2003), M.Sc., Stephen F. Austin State University
Sewell Brian (2002-2003), M.Sc., Stephen F. Austin State University
Arias Jason (2002-2004), M.Sc., Stephen F. Austin State University
Rhonda Mood (2002-2004), M.Sc., Stephen F. Austin State University
Oladunni Olayinka (2002-2004), M.Sc., Stephen F. Austin State University
Volha Minich (2003-2006), M.Sc., Stephen F. Austin State University
Jules Smith (2002-2006), M.Sc., Stephen F. Austin State University
Leah Cartwright (2004-2006), M.Sc., Stephen F. Austin State University
David Hollas (2004-2006), M.Sc., Stephen F. Austin State University
Daniel Bennett (2005-2007), M.Sc., Stephen F. Austin State University
Kevin Nichols (2006-2008), M.Sc., Stephen F. Austin State University
Michael Cook (2006-2008), M.Sc., Stephen F. Austin State University
Paul Juette (2011-2014), MA, Buffalo State College

SERVICE:

Organizer, special sessions at ASLO Aquatic Sciences Meetings (2017, 2019).
Organizer, special sessions at the Annual Meetings of the International Association of Great Lakes Research, 2009-2019.
Co-chair, special session at the International Conference “Big Lakes, Small World”, European Large Lakes Symposium and International Association for Great Lakes Research (ELLS-IAGLR-2018), September 23-28, 2018. Evian, France.
Organizer, special session at the XXXIII Congress of the International Society of Limnology, July 31 – August 5, 2016.
Member of the Organizing Committee for the Second International Freshwater Bivalves Conference. October 4-8, 2015. Buffalo, NY.

Buffalo State College, Buffalo New York:

Campus representative for the Great Lakes Research Consortium (2007 – current); Member of the Biology Department Personnel Committee (2007-2019); New Science Building Renovation Committee member (2007-2020); Member of the Great Lakes Center Graduate Committee (2011 – current); Member of the Field Station Renovation Committee (2011 – current).

Stephen F. Austin State University, Nacogdoches, Texas:

Department Committees: Scholarship Committee (2001-2003); Vehicle Use Committee (2001 – present), Graduate Committee (2003 – present), Freshman Biology Committee (2003 – present); Chair (2003-2004); Zoology & Ecology Positions Search Committees (2001-2006).

Belarusian State University, Minsk, Belarus:

Panel Member, Council for Doctoral Dissertation Defense in Zoology, Ecology and Hydrobiology, Zoology Institute of the National Academy of Sciences of Belarus (1993-2000); Chairman, Council for Coordination of Fundamental and Applied Study in Ecology at Belarusian State University (1997-2000); Chairman, Ecology Section of Education-Methodological Council in Natural Sciences, Republic of Belarus (1998-2000).

EDITOR OF JOURNAL SPECIAL ISSUES:

Lopes-Lima, M. P. M., R. G. Sousa, L. E. Burlakova, A. Y. Karatayev, K. and Mehler. "Ecology and Conservation of Freshwater Bivalves." *Hydrobiologia* 810(1). Published March 2018 (34 papers).

Burlakova L., A. Karatayev, L. Rudstam, and E. Hinchey. "U.S. EPA Great Lakes National Program Office Long-Term Monitoring of the Laurentian Great Lakes: approaches, achievements and lessons learned." *Journal of Great Lake Research* 44(4). Published August 2018 (18 papers).

Watkins, J. M. L. G. Rudstam, A. Y. Karatayev, W. J. S. Currie, A. E. Scofield, and T. P. Hollenhorst. "Stressors and Successes, Lake Ontario in Intensive Year 2018." *Journal of Great Lake Research* 48(2). Published April 2022.

Advisory Board, *International Journal of Aquatic Invasions*.

DISSERTATION EXAMINER:

Ph.D. Thesis by Frances Lucy "The dynamics of zebra mussel populations in Lough Key, Co. Roscommon." The Institute of Technology. August 2005. Sligo, Ireland.

Doctoral Dissertation by Olesya N. Kormilets "Fatty acids in the food webs of freshwater ecosystems." Siberian Federal University. October 2020. Krasnoyarsk. Russia.

MANUSCRIPTS REVIEWED:

Aquatic Conservation: Marine and Freshwater Ecosystems, Aquatic Invasions, Biofouling, Biological Conservation, Biological Invasions, BioInvasions Records, Diversity and Distribution, Freshwater Science, Freshwater Biology, Ecology, Ecological Applications, Hydrobiologia, Journal of Great Lakes Research, Journal of Molluscan Studies.

WORKSHOPS & INTERNATIONAL ACTIVITIES:

- 1994 (December): International Workshop on Zebra Mussel Parasites, Minsk, Belarus.
- 1995 (October): International Workshop on Zebra Mussel Parasites, France.
- 1997 (June): International Workshop on Zebra Mussel Parasites, Minsk, Belarus.

- 1998 (February): International Workshop on Zebra Mussel Parasites, Cornwall-on-Hudson, NY.
- 2004 (October): “The Comparative Roles of Suspension Feeders in Ecosystems” NATO Advanced Research Workshop, Nida, Lithuania.
- 2005 (May): International Research Workshop “Portrait of marine and freshwater invertebrate invaders,” Ireland.
- 2017 (July): International Workshop to explore the effect of biological invasions on aquatic ecosystems in Belarus and in North America, Cornell Biological Field Station, Bridgeport, NY.