MARINA POTAPOVA, Ph.D.

Assistant Curator of Diatoms, the Academy of Natural Sciences of Drexel University; Assistant Professor, Department of Biodiversity, Earth & Environmental Science, Drexel



Website: http://www.ansp.org/research/biodiv/diatoms/index.php

Education

- M.S., Botany, University of St. Petersburg, Russia, 1984
- Ph.D., Ecology, Russian Academy of Sciences, 1993

Research Interests

My research is on the taxonomy, ecology, and biogeography of diatoms. I am using light and scanning electron microscopy, geometric morphometric shape analysis, molecular methods, and ecological modeling techniques to study diatom communities of various geographical areas, to understand how environmental change affects their structure and function, to reveal biogeographical patterns of diatoms, and to reconstruct the phylogeny of monoraphid diatoms.

Biography

Marina Potapova is assistant curator of the Diatom Herbarium of the Academy of Natural Sciences. Before coming to the Academy in 1999, she worked at the Russian Academy of Sciences, Uppsala University, Sweden, and University of St. Petersburg, Russia. She has published more than 50 papers in peer-reviewed scientific journals, is a vice-president of the International Diatom Society, and associate editor of a journal *Diatom Research*. Potapova's research is focused on biogeographical and ecological patterns of freshwater diatoms, applications of shape analysis to diatom taxonomy, and systematics of monoraphid diatoms. She is as a member of editorial board and one the contributors to the online Diatom Flora of the United States, a collaborative project aimed at compiling a comprehensive

illustrated guide to diatom species. Other projects include a detailed study of diatoms of Pennsylvania and diatoms of Beringia (Northeastern Asia and Alaska). Potapova also is leading a project aimed at computerizing and making available online the vast resources of the Academy's Diatom Herbarium, which is one of the largest diatom collections in the world.

Selected Publications

- Potapova, M.G., Hamilton, P.B. Kopyrina, L.I. & Sosina, N.K. 2014. New and rare diatom (Bacillariophyta) species from a mountain lake in Eastern Siberia. Phytotaxa 156 (3): 100–116.
- Potapova, M. 2012. New species and combinations in monoraphid diatoms (family Achnanthidiaceae) from North America. Diatom Research 27: 29-42.
- English, J.D. and Potapova, M. 2012. Ontogenetic and interspecific valve shape variation in the Pinnatae group of the genus Surirella and the description of S. lacrimula sp. nov. Diatom Research 27: 9-27.
- Potapova, M. 2011. Patterns of Diatom Distribution In Relation to Salinity. Pages 313-332 in: Seckbach, J and J.P. Kociolek (Eds.) The Diatom World. Cellular Origin, Life in Extreme Habitats and Astrobiology (COLE) Book Series, V.19, Springer, Dordrecht.
- Potapova, M. and Carlisle D.M. 2011. Development and application of indices to assess the condition of benthic algal communities in U.S. streams and rivers. U.S. Geological Survey Open File Report 2011-1126.
- Spaulding, S.A., Lubinski, D.J. and Potapova, M. 2010. Diatoms of the United States. http://westerndiatoms.colorado.edu (web publication).
- Potapova, M. & Snoeijs, P. 1997. The natural life cycle in wild populations of Diatoma moniliformis (Bacillariophyceae) and its disruption in an aberrant environment. Journal of Phycology. V.33: 924-937.