

CURRICULUM VITAE

Marina Potapova, PhD

Associate Professor

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EDUCATION

- Postdoctoral researcher *Uppsala University, Sweden*, 1994-1996
- Doctor of Philosophy *Limnological Institute, Russian Academy of Sciences, St. Petersburg, Russia*, 1993 Ecology
- Master of Science *St. Petersburg University, Russia*, 1984 Botany

PROFESSIONAL/ACADEMIC APPOINTMENTS

- Associate Professor, *Department of Biodiversity, Earth and Environmental Science, Drexel University*, 2018-present
- Assistant Professor, *Department of Biodiversity, Earth and Environmental Science, Drexel University*, 2012-2018
- Adjunct Assistant Professor, *University of Iowa*, 2009-2014
- Curator of Diatoms, *Center for Systematic Biology and Evolution, The Academy of Natural Sciences*, 2008-present
- Research Scientist, *Patrick Center for Environmental Research, Academy of Natural Sciences of Philadelphia*, 1999-2007.
- University Lecturer, *St.Petersburg University, Russia*, 1997-1998
- Research Scientist, *Russian Academy of Sciences*, 1984-1990

TEACHING & ADVISING (Drexel University)

COURSES TAUGHT: Aquatic Ecology, Biogeography, The Tree of Life, Freshwater and Marine Algae, General Ecology, Advanced Community Ecology, Animal and Plant Identification.

UNDERGRADUATE TRAINEES: Micaela Kersey, Kris Freyland, Sarah Barker, Daiana Markarian, Brooke Herring, Hemal Trivedi, Catherine Quinn, Alison Starr, Alex Atyieh, Ian O'Malley, Lexi Khan, Katerine DiAngelus, Bonnie Wiedel, Evan Wilson, Sam Kuciej, Jonathan Starr, Ly Nguyen, Naomi Friedman, Caroline Gallen, Abigail King, Josh Barufaldi.

GRADUATE TRAINEES: Laura Aycock, Alison Minerovic, Nina Desianti, Matt Schlezinger, Paul Conti

GRADUATE COMMITTEES: Emily Griffith, Jon Merwin, Andrew Payne, Solange Akimana, Kylie Cherneskie, Boloroo Erdenee, Chelsea Smith, Brittany Wilburn, Melissa Carpenter, Stephen Mason, David Keller, Johannes Krause, Nate Shoobs.

PUBLICATIONS

PEER-REVIEWED:

1. Potapova M, Markarian D, King A, Aycock L. 2024. Microbial Eukaryotes in Natural and Artificial Salt Marsh Pools. *Coasts* 4(2):287-305.
<https://doi.org/10.3390/coasts4020015>
2. Edlund, M.B., S.A. Spaulding, I.W. Bishop, M. Potapova, S.S. Lee, P.C. Furey and E. Jovanovska. 2024. Diatoms of North America: Proposed nomenclatural transfers within the Bacillariophyceae 1. *Notulae Algarum* 319: 1–3.
3. Potapova, M., Aycock, L.L. & Kersey, M.H. 2023. *Pinnularia ectorii* sp. nov. from Eastern North America. *Nova Hedwigia* 117: 265–278.
4. Potapova, M., Kersey, M.H., & Aycock, L.L. 2023. Diversity and distribution of spine-bearing species of *Pinnularia* in eastern North America, *Diatom Research* 38:1, 33-53, DOI: [10.1080/0269249X.2023.2208136](https://doi.org/10.1080/0269249X.2023.2208136)
5. Halbwachs, H., Grímsson, F., Potapova, M., Dolezych, M. & LePage, B. 2022. Microfossils in resin from the middle Eocene Buchanan Lake Formation, Napartulik, Axel Heiberg Island, Nunavut, Canada, *Palynology* 47(1). DOI: [10.1080/01916122.2022.2127956](https://doi.org/10.1080/01916122.2022.2127956)
6. Enache, M.E., Potapova, M.G., Tyree Polaskey, M. & Spaulding, S.A. 2022. *Aulacoseira newjerseyana* sp. nov. (Bacillariophyta) a new freshwater centric diatom species from the northeastern USA, *Diatom Research* 37(3), 263–271. DOI: [10.1080/0269249X.2022.2118834](https://doi.org/10.1080/0269249X.2022.2118834)
7. Potapova, M.G., Lee, S.S., Spaulding, S.A. & Schulte, N.O. 2022. A harmonized dataset of sediment diatoms from hundreds of lakes in the northeastern United States. *Scientific Data* 9, 540. DOI: 10.1038/s41597-022-01661-3
8. Wetzel, C.E., Potapova, M. & Williams, D.M. 2022. *Synedra phantasma* M.H.Hohn (Bacillariophyta, Fragilariaeae) from the Amazon river (South America): its typification and transfer to the genus *Fragilaria*. *Notulae Algarum* 252: 1-12.
<https://notulaealgarum.org/2022/documents/Notulae%20Algarum%20No.%20252.pdf>
9. Potapova, M., Gallen, C. & Friedman, N. 2022. *Stauroneis terryi* D.B. Ward ex T.C. Palmer: a forgotten diatom from northeastern North America. *Diatom Research*, DOI: [10.1080/0269249X.2022.2078884](https://doi.org/10.1080/0269249X.2022.2078884).
10. Spaulding, S.A., M.G. Potapova, I.W. Bishop, S.S. Lee, T.S. Gasperak, E. Jovanoska, P.C. Furey and M.B. Edlund. 2022. Diatoms.org: supporting taxonomists, connecting communities. *Diatom Research* 36(4): 291–304.
11. Van de Vijver, B., Hürlimann, J., Potapova, M., Bahls, L., Ballings, P., Levkov, Z., Kusber, W.-H., & Ector, L. 2021. Observations and typification of *Fragilaria cyclopum* (Brutschy) Lange-Bertalot. *Notulae Algarum* 204: 1-6.
<https://notulaealgarum.org/2021/documents/Notulae%20Algarum%20No.%20204.pdf>.
12. Potapova, M.G., Aycock, L. & Bogan, D. 2020. *Discostella lacuskarluki* (Manguin ex Kocielek & Reviers) comb. nov.: a common nanoplanktonic diatom of Arctic and boreal lakes. *Diatom Research* 35(1): 55-62. DOI: 10.1080/0269249X.2020.1727569
13. Minerovic, A.D., Potapova, M.G., Sales, C.M., Price, J.R. & Enache, M.D. 2020. 18S-V9 DNA metabarcoding detects the effect of water-quality impairment on stream biofilm eukaryotic assemblages. *Ecological Indicators* 113: 106225 [p. 1- 12].
<https://doi.org/10.1016/j.ecolind.2020.106225>.

14. Potapova, M.G. 2019. Occurrence of two *Krsticiella* species in Beringia suggests this genus is a Cenozoic relict. *Diatom Research* 34(2): 109-114, DOI: [10.1080/0269249X.2019.1639551](https://doi.org/10.1080/0269249X.2019.1639551)
15. Potapova, M.G., Ciugulea, I. & Minerovic, A. 2019. The novel species *Navicula eileeniae* (Bacillariophyta, Naviculaceae) and its recent expansion in the Central Appalachian region of North America. *Plant Ecology and Evolution* 152(2): 368-377. <https://doi.org/10.5091/plecevo.2019.1594>
16. Desianti, N., Enache, M.D., Griffiths, M., Biskup, K., Degen, A., DaSilva, M., Millemann, D., Lippincott, L., Watson, E., Gray, A., Nikitina, D. & Potapova, M. 2019. The potential and limitations of diatoms as environmental indicators in Mid-Atlantic coastal wetlands. *Estuaries and Coasts* 42: 1440-1458. <https://doi.org/10.1007/s12237-019-00603-4>
17. Potapova, M. 2018. New and rare *Psammothidium* species (Bacillariophyta, Achnanthidiaceae) from Northeastern Siberia. *Cryptogamie. Algologie* 39(4):465-479. <https://doi.org/10.7872/crya/v39.iss4.2018.465>
18. Desianti, N., Potapova, M., Enache, M., Belton, T., Velinsky, D., Thomas, R., and Mead, J. 2017. Sediment diatoms as environmental indicators in New Jersey coastal lagoons. *Journal of Coastal Research* 78: 127-140.
19. Ponader, K.C., Potapova, M.G., Desianti, N., Hamilton, P.B., Lavoie, I. & Campeau, S. 2017. *Gomphonema caperatum* sp. nov., *G. obstipum* sp. nov. and similar taxa from rivers of North America. *Diatom Research* 32(1): 59-73.
20. Kemp, A. C., Horton, B. P., Nikitina, D., Vane, C. H., Potapova, M., Weber-Bruya, E., Culver, S. J., Repkina, T. & Hill, D. F. 2017. The distribution and utility of sea-level indicators in Eurasian sub-Arctic salt marshes (White Sea, Russia). *Boreas* 46 (3): 562-584.
21. Keller, S., Hilderbrand, R., Shank, M. & Potapova, M. 2017. Environmental DNA genetic monitoring of the nuisance freshwater diatom, *Didymosphenia geminata* in Eastern North American Streams. *Diversity and Distributions* 23: 381-393.
22. Potapova, M., Desianti, N. & Enache, M. 2016. Potential effects of sediment contaminants on diatom assemblages in coastal lagoons of New Jersey and New York States. *Marine Pollution Bulletin* 107(2): 453-458.
23. Bahls, L. & Potapova, M. 2015. Two new species of *Navicula* (Bacillariophyta, Naviculales) from the Cascade Mountains of the American Northwest. *Phytotaxa* 218 (3): 253-267.
24. Desianti, N., Potapova, M. & Beals, J. 2015. Examination of the type materials of diatoms described by Hohn and Hellerman from the Atlantic Coast of the United States. *Diatom Research* 30 (2): 93-116.
25. Potapova, M. 2014. *Encyonema appalachianum* (Bacillariophyta, Cymbellaceae), a new species from Western Pennsylvania, USA. *Phytotaxa* 184:115-120.
26. Potapova, M. 2014. Diatoms of Bering Island, Kamchatka, Russia. *Nova Hedwigia, Beiheft* 143: 63–102.
27. Enache, M.D., Potapova, M. & Morales, E.A. 2014. *Plateissa strelnikovae* (Bacillariophyta), a new species from Maine and Vermont lakes, USA. *Nova Hedwigia, Beiheft* 143: 239–244.
28. Cvetkoska, A., Levkov, Z., Hamilton, P.B. & Potapova, M. 2014. The biogeographic distribution of *Cavinula* (Bacillariophyceae) in North America with the descriptions of two new species. *Phytotaxa* 184: 181–207.

29. Atazadeh, I., Edlund, M.B., Van der Vijver, B., Mills, K., Spaulding, S.A., Gell, P.A., Crawford, S.A., Barton, A.F., Lee, S.S., Smith, K.E.L., Newall, P. & Potapova, M. 2014. Morphology, ecology and biogeography of *Stauroneis pachycephala* P.T. Cleve (Bacillariophyta) and its transfer to the genus *Envekadea*. *Diatom Research* 29(4): 455-464.
30. Veselá, J. & Potapova, M. 2014. *Surirella arctica* comb. et stat. nov. (Bacillariophyta) - a rare arctic diatom. *Phytotaxa* 166 (3): 222-234.
31. 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.
32. Veselá, J., Johansen, J.R. & Potapova, M. 2013. *Surirella terryi* and *S. cruciata*: two rare diatoms from North America. *Diatom Research* 28: 503-516.
33. Enache, M.D., Potapova, M., Sheibley, R. & Moran, P. 2013. Three new *Psammothidium* species from lakes of Olympic and Cascade Mountains in Washington State, USA. *Phytotaxa* 127(1): 49-57.
34. Potapova, M. 2013. Transfer of *Achnanthes decipiens* to the genus *Nupela*. *Diatom Research* 28: 139-142.
35. Potapova, M. 2013. The types of 22 *Navicula* (Bacillariophyta) species described by Ruth Patrick. *Proceedings of the Academy of Natural Sciences of Philadelphia* 162: 1-23.
36. Beals, J. & Potapova, M. 2013. Type material of the diatom *Eunotia arcuoides* Foged. *Proceedings of the Academy of Natural Sciences of Philadelphia* 162: 25-32.
37. Potapova, M. 2012. New species and combinations in monoraphid diatoms (family Achnanthidiaceae) from North America. *Diatom Research* 27: 29-42.
38. Enache, M. & Potapova, M. 2012. A new species of *Eucocconeis* (Bacillariophyceae) from North America. *Diatom Research* 27: 75-80.
39. Zuellig, R.E., Carlisle, D.M., Meador, M.R. & Potapova, M. 2012. Variance partitioning of stream diatom, fish, and invertebrate indicators of biological condition. *Freshwater Science* 31: 182-190.
40. English, J.D. & 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.
41. Potapova, M. 2011. *Tabellaria vetteri*, a new diatom species (Bacillariophyta: Tabellariaceae) from Pennsylvania. *Proceedings of the Academy of Natural Sciences of Philadelphia* 161: 35-41.
42. Potapova, M. 2011. New species and combinations in the genus *Nupela* from the USA. *Diatom Research* 26: 73-87.
43. Potapova, M. & 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.
44. 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.
45. Potapova, M. 2010. The ANSP Diatom Herbarium: an important resource for diatom research. *Proceedings of the Academy of Natural Sciences of Philadelphia* 160: 3-12.
46. Enache, M. & Potapova, M. 2009. A new species of *Sellaphora* (Sellaphoraceae) from Hannaberry Lake, Arkansas, USA. *Acta Botanica Croatica* 68: 231-237.

47. English, J. & Potapova, M. 2009. *Aulacoseira pardata* sp. nov., *A. nivalis* comb. nov., *A. nivaloides* comb. et stat. nov., and their occurrences in western North America. *Proceedings of the Academy of Natural Sciences of Philadelphia* 158: 37-48.
48. Bahls, L., Potapova, M., Fallu, M.-A. & Pientz, R. 2009. *Aulacoseira canadensis* and *Aulacoseira crassipunctata* (Bacillariophyta) in North America. *Nova Hedwigia Beiheft* 135: 167-184.
49. Potapova, M.G. & Ponader, K.C. 2008. New species and combinations in the diatom genus *Sellaphora* (Sellaphoraceae) from Southeastern United States. *Harvard Papers in Botany* 13: 171–181.
50. Carlisle D.M., Hawkins C.P., Meador M.R., Potapova M. & Falcone J. 2008. Biological assessments of Appalachian streams based on predictive models for fish, macroinvertebrate, and diatom assemblages. *Journal of the North American Benthological Society* 27: 16-37.
51. Potapova, M. & Hamilton, P.B. 2007. Morphological and ecological variation within the *Achnanthidium minutissimum* (Bacillariophyceae) species complex. *Journal of Phycology*, 43:561-575.
52. Potapova, M. & Charles, D.F. 2007. Diatom metrics for monitoring eutrophication in rivers of the United States. *Ecological Indicators* 7:48-70.
53. Ponader, K.C. & Potapova, M.G. 2007. Diatoms from the genus *Achnanthidium* in flowing waters of the Appalachian Mountains (North America): Ecology, distribution and taxonomic notes. *Limnologica* 37: 227-241.
54. Potapova, M. 2006. *Achnanthidium zhakovschikovii* sp. nov. (Bacillariophyta) and related species from rivers of Northwestern Russia. *Nova Hedwigia* 82(3-4): 399-408.
55. Potapova, M. & Winter D. 2006. Use of nonparametric multiplicative regression for modeling diatom habitat: a case study of three *Geissleria* species from North America. Pages 319-332 in: Ognjanova-Rumenova, N. and K. Manoylov (eds.) *Advances in Phycological Studies. Festschrift in Honour of Prof. Dobrina Temniskova-Topalova*. Pensoft Publishers & University Publishing House, Sofia-Moscow.
56. Potapova, M. & Charles, D.F. 2005. Choice of substrate in algae-based water-quality assessment. *Journal of the North American Benthological Society* 24: 415-427.
57. Potapova, M.G., J. F. Coles, Giddings, E. M. & Zappia, H. 2005. A comparison of the influences of urbanization in contrasting environmental settings on stream benthic algal assemblages. *Effects of urbanization on stream ecosystems. American Fisheries Society Symposium* 47: 333-359.
58. Potapova, M. & Charles, D.F. 2004. Potential use of rare diatoms as environmental indicators in U.S.A. rivers. Pages 281-295 in: *Proceedings of the 17th International Diatom Symposium*, M. Poulin, editor, Biopress Limited, Bristol.
59. Potapova, M.G., Charles, D.F., Ponader, K.C. & Winter, D.M. 2004. Quantifying species indicator values for trophic diatom indices: a comparison of approaches. *Hydrobiologia* 517: 25-41.
60. Potapova, M.G. & Ponader, K.C. 2004. Two common North American diatoms, *Achnanthidium rivulare* sp. nov. and *A. deflexum* (Reimer) Kingston: morphology, ecology and comparison with related species. *Diatom Research* 19(1): 33-57.
61. Potapova, M.G., Ponader, K.C., Lowe, R.L., Clason, T.A. & Bahls, L.L. 2003. Small-celled *Nupela* species from North America. *Diatom Research* 18(2) 293-306.
62. Potapova, M. & Charles, D.F. 2003. Distribution of benthic diatoms in U.S. rivers in relation to conductivity and ionic composition. *Freshwater Biology* 48: 1311-1328.

63. Potapova, M. & Charles, D.F. 2002. Benthic diatoms in USA rivers: distribution along spatial and environmental gradients. *Journal of Biogeography* 29: 167-187.
64. Snoeijs, P., Busse, S. & Potapova, M. 2002. The importance of diatom cell size in community analysis. *Journal of Phycology* 38: 265-281.
65. Makarova, I.V., Strelnikova, N.I., Kozyrenko, T.F., Gladennkov, A.Yu., Kazarina, G. Kh., Nikolaev, V.A., Potapova, M.G., Zhakovshchikova, T.K. 2002. *The Diatoms of Russia and adjacent countries. Fossil and recent. II(3)*. St. Petersburg: St. Petersburg University, 111 pp.
66. Potapova, M.G. 1999. Diatom algae of a sandy littoral in the eastern part of the Gulf of Finland. *Botanichesky Zhurnal (Botanical Journal)* 84 (1): 59-65.
67. Potapova, M. 1999. Use of algae for monitoring rivers in Russia. In: *Use of algae for monitoring rivers III, Proceedings of an International Symposium held at Douai, France, 1997*, pp. 96-101. Snoeijs, P. & Potapova, M. 1998. Ecotypes or endemic species? – a hypothesis on the evolution of *Diatoma* taxa (Bacillariophyta) in the northern Baltic Sea. *Nova Hedwigia*. 67(3-4): 303-348.
68. Potapova, M., Kvitko, K., Dmitrieva, I. 1998. Algal components of the oil-polluted water ecosystems. *Proceedings of the Workshop of the Water/Wastewater Section of the VAAM on Microbiology of polluted aquatic ecosystems, Leipzig, Germany*, 10: 182-187.
69. Safonova, E., Kvitko, K., Potapova, M. 1998. The collection of algae from polluted waters and soils. *Proceedings of the Workshop of the Water/Wastewater Section of the VAAM on Microbiology of polluted aquatic ecosystems, Leipzig, Germany*, 10: 188-196.
70. 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* 33: 924-937.
71. Potapova, M. 1996. Epilithic algal communities in rivers of the Kolyma Mountains, NE Siberia, Russia. *Nova Hedwigia* 63 (3-4): 309-334.
72. Snoeijs, P. & Potapova, M. (eds.) 1995. *Intercalibration and distribution of diatom species in the Baltic Sea*. Vol. 3. Uppsala: Opulus Press, 126.
73. Potapova, M. 1994. Biomass of the attached algae in the rivers of Kolyma Mountains: its dynamics and limiting factors. *Vodnye resursy (Water resources)* 21 (6): 684-690.
74. Potapova, M. 1993. Seasonal dynamics and spatial distribution of benthic algal communities in the Kontakovy creek basin. Pages 20-32 in "Hydrology, hydrochemistry and hydrobiology of the Kontakovy creek (the Upper Kolyma basin)". Vladivostok.
75. Kharitonov V. & Potapova, M. 1993. Phytobenthos of the Kontakovy creek. Pages 33-41 in "Hydrology, hydrochemistry and hydrobiology of the Kontakovy creek (the Upper Kolyma basin)". Vladivostok.
76. Potapova, M. 1992. The composition and distribution of the attached algal communities in small rivers of the Upper Kolyma River basin. *Botanichesky Zhurnal (Botanical Journal)*: 77 (1): 83-91.

WEB PUBLICATIONS

- Potapova, M., Veselá, J., Smith, C., Minerovic, A., Aycock, L. (Editors). 2023. Diatom New Taxon File at the Academy of Natural Sciences (DNTF-ANS), Philadelphia. <http://dh.ansp.org/dntf>
- Kocielek, J.P.; Blanco, S.; Coste, M.; Ector, L.; Liu, Y.; Karthick, B.; Kulikovskiy, M.; Lundholm, N.; Ludwig, T.; Potapova, M.; Rimet, F.; Sabbe, K.; Sala, S.; Sar, E.; Taylor,

- J.; Van de Vijver, B.; Wetzel, C.E.; Williams, D.M.; Witkowski, A.; Witkowski, J. 2021. DiatomBase. www.diatombase.org. doi:10.14284/504
- Spaulding, S.A., Bishop, I.W., Edlund, M.B., Lee, S., Furey, P., Jovanovska, E. and Potapova, M. 2020. Diatoms of North America. <https://diatoms.org/>
 - Spaulding, S.A., Lubinski, D.J. & Potapova, M. 2010. Diatoms of the United States. <http://westerndiatoms.colorado.edu>

GRANTS

- New Jersey DEP - DNA metabarcoding of diatoms in Pinelands wetlands. 2022-2023 (PI).
- EPA - Diatom Harmonization, Northeastern Lakes, RARE project, Phase 2. 2021-2022 (Co-PI).
- NSF- "MRI: Acquisition of an advanced scanning electron microscope for in situ and in operando materials characterization and education", 2021-2023 (Co-PI)
- US EPA – "Diatom Harmonization: Filling a Crucial Gap for Application to Assessment and Criteria Development". 2020-2021 (PI)
- NSF- "CSBR: Natural History Collections: Advancing Access to Diatom Slide Collection at the Academy of Natural Sciences of DU by Whole-Slide Imaging and Virtual Microscopy". 2020-2024 (PI)
- US EPA/Great Lakes Environmental Center – "Voucher Flora and Diatom Identification and Enumeration of NRSA samples". July-December 2019. 2019 (PI)
- US EPA/Great Lakes Environmental Center – "Voucher Flora and Diatom Identification and Enumeration of NRSA samples". 2019 (PI)
- University of Colorado – "Diatom analysis of Northeastern streams". 2018 (PI)
- New Jersey DEP – "Diatom Flora of the New Jersey Coastal Wetlands". 2018-2019 (PI)
- New Jersey DEP – "Pilot study: DNA- metabarcoding of diatom assemblages for biomonitoring of New Jersey water bodies". 2017-2018 (PI)
- New Jersey DEP – "Assessment of Barnegat Bay Condition Based on Core Sediments". 2017-2018 (PI)
- Pennsylvania DEP – "Wetland Program Development in Support of Pennsylvania's Aquatic Resource Protection and Management Action Plan: Headwater Aquatic Resource Restoration Monitoring". 2015-2017 (PI)
- Susquehanna River Basin Commission/ PA Sea Grant – "*Didymosphenia geminata* in Pennsylvania: an investigation of current and historic distribution, habitat suitability, and nutritional content". 2014-2016 (Co-PI)
- US EPA/ New Jersey DEP – "New Jersey Wetlands Past, Present and Future: Using Sediment Archives to Inform and Guide Wetland Protection, Restoration and Resilience". 2014-2016 (Co-PI)
- New Jersey DEP – "Barnegat Bay diatom water-quality calibration, Year 3". 2014-2015 (PI), Year 2. 2013-2014 (PI), Year 1, 2012 (Co-PI)
- USGS – "Analysis of diatom assemblages in sediments from Hurricane Sandy impacted estuaries". 2013-2014 (PI)
- Wild Resource Conservation Program of PA Department of Conservation and Natural Resources – "Diatoms of State Parks of South-Western Pennsylvania". 2012-2014 (PI)
- USGS – "Algal Research and Ecological Synthesis for the USGS. National Water Quality Assessment (NAWQA) Program Cooperative Agreement 3, Year 5". 2011-2012 (Co-PI)

- USGS – ”Algal Research and Ecological Synthesis for the USGS. National Water Quality Assessment (NAWQA) Program Cooperative Agreement 3, Year 4”. 2010 -2011 (Co-PI)
- Kentucky Division of Water – ”Diatom Quality Assurance and Special Taxonomy Investigation”. 2011 (PI)
- USGS – ”Algal Research and Ecological Synthesis for the USGS. National Water Quality Assessment (NAWQA) Program Cooperative Agreement 3, Year 3”. 2009-2010 (Co-PI)
- Wild Resource Conservation Program of PA Department of Conservation and Natural Resources- ”Diatoms of North-Central Pennsylvania”. 2009-2010 (PI)
- NSF- ”Renovation and Computerization of the Diatom Herbarium at the Academy of Natural Sciences of Philadelphia”. 2009-2012 (PI)
- USGS – ”Algal Research and Ecological Synthesis for the USGS. National Water Quality Assessment (NAWQA) Program Cooperative Agreement 3, Year 2”. 2008-2009 (Co-PI)
- USGS – ”Taxonomic consistency in biological assessment: contributions of diatom species records”. 2008-2009 (PI)
- Trust for Mutual Understanding - Collaborative Research on Ecosystem Monitoring in the Russian Northern Far-East. 2008-2009 (PI)
- The John D. and Catherine T. Mac Arthur Foundation- ”The environmental status of small rivers and its assessment through diatom analysis”. 1998-1999 (PI)

SERVICE

MEMBERSHIPS/FELLOWSHIPS

- International Society for Diatom Research: President (2014-2016), Vice-President (2012-2014), Council Member (2008 – 2012, 2016-2018)
- Society for Freshwater Science/North American Benthological Society: 2008-present
- Phycological Society of America: 2009-2015
- International Phycological Society: 2010-2016

CONFERENCES ORGANIZED

- Organizer or co-organizer of 8 diatom taxonomy workshops at The Academy of Natural Sciences (2007-2018)

EDITORIAL BOARDS

- Phycologia, associate editor, 2005-2012
- Southeastern Naturalist, guest editor, 2006
- Diatom Research, associate editor, 2011-2017
- ”Diatoms of North America” online diatom identification guide and ecological resource (www.diatom.org), editorial review board member, 2011-present
- DiatomBase, online catalogue of diatom names, World Register of Marine Species, <http://www.diatombase.org/index.php>, taxonomic editor, 2017-present