

Robin S. Sleith

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Education

Ph.D. Plant Science. 2018. The City University of New York; The New York Botanical Garden, Bronx, NY
Bachelor of Science, Biology. 2008. Green Mountain College, Poultney, VT

Professional Experience

Research Scientist. 2025-present. Bigelow Laboratory for Ocean Sciences, East Boothbay, ME
Research Associate. 2021-present. Colby College, Waterville, ME
Postdoctoral Scientist. 2021-2024. Bigelow Laboratory for Ocean Sciences, East Boothbay, ME
Postdoctoral Research Fellow and Lecturer. 2018-2021. Smith College, Northampton, MA
Ph.D. Candidate, Graduate Fellow. 2013-2018. The New York Botanical Garden, Bronx, NY
Assistant Data Manager. 2012-2013. Map of Life, Yale University, New Haven, CT
Research Technician. 2010-2012. The New York Botanical Garden, Bronx, NY
Educator. 2009. AmeriCorps VISTA at The Urban Ecology Institute, Boston, MA
Educator. 2008. Sargent Center for Outdoor Education, Hancock, NH
Field Assistant. 2006-2007. Rocky Mountain Biological Laboratory, Gothic, CO

Teaching Experience

Instructor. 2018-2020. Bioinformatics and Comparative Molecular Biology, Smith College, Northampton, MA
Instructor. 2019. Microbial Diversity Lab, Smith College, Northampton, MA
Instructor. 2018. Photosynthetic Life, Sarah Lawrence College, Bronxville, NY
Instructor. 2015. The Universe of Algae, The New York Botanical Garden, Bronx, NY

Grants

Maine Coastal and Marine Climate Action Fund – 2024. Building an eDNA outreach database for Maine, \$199,671. Bigelow Laboratory for Ocean Sciences, East Boothbay, ME
Horizon Foundation – 2022. All Hands on Deck: Collaborative Solutions to Recurring Cyanobacteria Blooms on Damariscotta Lake, \$60,000. Bigelow Laboratory for Ocean Sciences, East Boothbay, ME
Northeast SARE Research for Novel Approaches – 2021. Development of a rapid, inexpensive assay for farm-based detection of four pathogenic *Vibrio* strains linked to shellfish hatchery failures, \$199,989. Bigelow Laboratory for Ocean Sciences, East Boothbay, ME
Maine eDNA Seed Grant – 2021. In their own hands: Handheld eDNA toolkits for oyster hatcheries and growers, \$20,000. Bigelow Laboratory for Ocean Sciences, East Boothbay, ME
NSF – Doctoral Dissertation Improvement Grant. 2017-2018. Quantifying Rapid Adaptation in an Aquatic Invasive Algal Species, \$19,751. The New York Botanical Garden, Bronx, NY

Publications (*indicates undergraduate author/coauthor)

Ascher, A., P.D. Countway, R.S. Sleith, C. Morris, C. Haley, D.M. Fields & R.A. Wahle. *Under Review*. Contemporary eDNA methods complement conventional microscopy in zooplankton diet studies: Case study with American lobster postlarvae. *PLOS ONE*.
Gottschalk, S.D., A. Boissezon, S.E. Hamsher, R.M. McCourt, D.J. Perleberg, P.M. Skawinski, R.S. Sleith & K.G. Karol. 2024. We do not see evidence for the presence of female gametangia (oospores) in North American *Nitellopsis obtusa* (Desvaux) J. Groves. *Botany*. DOI:10.1139/cjb-2023-0102

- Dufour, O.K.*, E. Hoffman*, R.S. Sleith, L.A. Katz, A.K.M. Weiner & T.R. Sehein. 2024. Testate amoebae (Arcellinida, Amoebozoa) community diversity in New England bogs and fens assessed through lineage-specific amplicon sequencing. *European Journal of Protistology*. DOI:10.1016/j.ejop.2023.126049
- Grow, A.K., T.R. Sehein, R.S. Sleith, M. Labare & L.A. Katz. 2023. Exploring the diversity of microeukaryotic communities in New England tide pools. *Aquatic Microbial Ecology*. DOI:10.3354/ame02003
- Weiner, A.K.M., T.R. Sehein, A. Cote-L'Heureux, R.S. Sleith, M. Greco, C. Malekshahi*, C. Ryan-Embry*, N. Ostriker* & L.A. Katz. 2023. Single-cell transcriptomics supports presence of cryptic species and reveals low levels of population genetic diversity in two testate amoebae morphospecies with large population sizes. *Evolution*. DOI:10.1093/evolut/qpad158
- Sleith, R.S. & L.A. Katz. 2022. Illuminating protist diversity in pitcher plants and bromeliad tanks. *PLOS ONE* 17(7): e0270913. DOI:10.1371/journal.pone.0270913
- Thakur, R., A. Collens*, M. Greco, R.S. Sleith, J.D. Grattepanche & L.A. Katz. 2022. Newly designed foraminifera primers identify habitat-specific lineages through metabarcoding analyses. *Journal of Eukaryotic Microbiology*. 69, e12913. DOI:10.1111/jeu.12913
- Weiner, A.K.M., B.J. Cullison*, S.V. Date, T. Tymi, J.M. Volland, T. Woyke, L.A. Katz & R.S. Sleith. 2021. Examining the nature of the relationship between the testate amoeba *Hyalosphenia papilio* (Arcellinida, Amoebozoa) and its associated intracellular microalgae using molecular and microscopic methods. *Protist*. DOI: 10.1016/j.protis.2021.125853
- Kelley, E.R.*, R.S. Sleith, M.V. Matz & R.M. Wright. 2021. Gene expression associated with disease resistance and long-term growth in a reef-building coral. *Proceedings of the Royal Society B: Biological Sciences*. DOI:10.1098/rsos.210113
- Sleith, R.S. & K.G. Karol. 2021. Global high throughput genotyping of organelles reveals the origin and spread of invasive starry stonewort (*Nitellopsis obtusa*). *Biological Invasions*. DOI:10.1007/s10530-021-02591-8
- Mulder, O., R.S. Sleith, K. Mulder & N.R. Coe. 2020. A Bayesian analysis of topographic influences on the presence and severity of beech bark disease. *Forest Ecology and Management*. 472: 118198 DOI:10.1016/j.foreco.2020.118198
- Sleith, R.S. & L.A. Katz. 2019. Ubiquity or not ubiquity: That is the question. *Molecular Ecology*. DOI:10.1111/mec.15297
- Wehr, J.D., S.E. Steirer* & R.S. Sleith. 2019. Rediscovery of the Freshwater Brown alga *Heribaudiella* in Connecticut After 100 Years. *Northeastern Naturalist*. DOI:10.1656/045.026.0209
- Allen, J., S. McKenzie, R.S. Sleith & S. Elizabeth Alter. 2018. First genome-wide analysis of an endangered lichen reveals isolation by distance and strong population structure. *American Journal of Botany* DOI:10.1002/ajb2.1150
- Sleith, R.S., J.D. Wehr & K.G. Karol. 2018. Untangling climate and water chemistry to predict changes in freshwater macrophyte distributions. *Ecology and Evolution*. DOI:10.1002/ece3.3847
- Muthukrishnan, R., R.S. Sleith, K.G. Karol, & D.J. Larkin. 2018. Prediction of starry stonewort (*Nitellopsis obtusa*) invasion risk in upper Midwest lakes using ecological niche models. *Aquatic Botany*. DOI:10.1016/j.aquabot.2018.08.001
- Karol, K.G., M.S. Alix, R.W. Scribailo, P.M. Skawinski, R.S. Sleith, J.A. Sardina* & J.D. Hall. 2018. New records of the rare North American endemic *Chara brittonii* (Characeae), with comments on its distribution. *Brittonia*. DOI: 10.1007/s12228-018-9527-3
- Larkin, D.J., A.K. Monfils, A. Boissezon, R.S. Sleith, P.M. Skawinski, C. Welling, B. Cahill & K.G. Karol. 2018. Biology, ecology, and management of starry stonewort (*Nitellopsis obtusa*; Characeae): A Red-listed Eurasian green alga invasive in North America. *Aquatic Botany*. DOI:10.1016/j.aquabot.2018.04.003
- Karol, K.G. & R.S. Sleith. 2017. Discovery of the oldest record of *Nitellopsis obtusa* (Charophyceae, Charophyta) in North America. *Journal of Phycology*. DOI:10.1111/jpy.12557
- Sleith, R.S., A.J. Havens*, R.A. Stewart* & K.G. Karol. 2015. Distribution of *Nitellopsis obtusa* in New York, USA. *Brittonia*. DOI:10.1007/s12228-015-9372-6

Presentations

- Sleith, R.S., P. Nease & P.D. Countway. 2024. Collaborative Solutions to Recurring Cyanobacteria Blooms on Damariscotta Lake. 12th Symposium on Harmful Algae, October 28-31, Portland, ME.
- McCann, R., R.S. Sleith, S. Zimmerman & P.D. Countway. 2024. A user-friendly, rapid eDNA tool to identify pathogens responsible for diseases in oyster aquaculture. Northeast Aquaculture Conference & Exposition, January 10-12, Providence, RI.
- Sleith, R.S., P. Nease & P.D. Countway. 2023. Molecular monitoring of cyanoHABs across the Freshwater-to-Marine Continuum. Bigelow Laboratory for Ocean Sciences, October 12th, East Boothbay, ME. (Co-PI seminar)
- Sleith, R.S., P.D. Countway & N.N. Price. 2023. Blue Carbon: measuring a potentially significant and revenue-generating carbon storage pathway in seaweed aquaculture. National Seaweed Symposium, April 24-27, Portland, ME.
- Sleith, R.S., P. Nease & P.D. Countway. 2022. Molecular monitoring of cyanoHABs across the Freshwater-to-Marine Continuum in coastal Maine. 11th U.S. Symposium on Harmful Algae, October 23-28, Albany, NY.
- Sleith, R.S., J.D. Grattepanche & L.A. Katz. 2019. Surveying microbial eukaryote diversity in phytotelmata habitats. VIII European Congress of Protistology – ISOP Joint Meeting, July 28 – August 2, Rome, Italy.
- Sleith, R.S., R. Thakur & L.A. Katz. 2019. Genome dynamics of benthic Foraminifera. VIII European Congress of Protistology – ISOP Joint Meeting, July 28 – August 2, Rome, Italy.
- Sleith, R.S., R. Thakur, J.D. Grattepanche, C. Macpherson & L.A. Katz. 2019. Surveying microbial eukaryote diversity at different scales. Pioneer Valley Microbiology Symposium, January 18, Amherst, MA.
- Sleith, R.S. & K.G. Karol. 2018. Assembling the nuclear genome of an invasive charophyte. 57th Annual Northeast Algal Symposium, April 13-15, New Haven, CT.
- Sleith, R.S., Wehr, J.D. & Karol, K.G. 2017. Using species distribution models to examine the future of Characeae in North America. 11th International Phycological Congress. August 13-19, Szczecin, Poland.
- Sleith, R.S., Wehr, J.D. & Karol, K.G. 2016. Tracing the movement of the invasive alga *Nitellopsis obtusa* using genetic analyses. Upper Midwest Invasive Species Conference. October 16-19, La Crosse, WI.
- Sleith, R.S., Wehr, J.D. & Karol, K.G. 2016. *Nitellopsis obtusa* in North America. 7th International Symposium on Extant and Fossil Charophytes, August 29 – September 2, Astana, Kazakhstan.
- Sleith, R.S., Wehr, J.D. & Karol, K.G. 2016. Tracing the movement of the invasive alga *Nitellopsis obtusa* using genetic analyses. 70th Annual Phycological Society of America Meeting, July 24-28, Cleveland, OH.
- Sleith, R.S., Havens, A.J., Stewart, R.A., Wehr, J.D. & Karol, K.G. 2016. In Characeae: “Everything is everywhere, but the environment selects.” 55th Annual Northeast Algal Symposium, April 22-24, Westfield, MA.
- Sleith, R.S., Havens, A.J., Stewart, R.A. & Karol, K.G. 2016. Distribution and ecology of *Nitellopsis obtusa* in New York, U.S.A. 17th Annual Northeast Aquatic Plant Management Society, January 12-14, Saratoga Springs, NY.
- Sleith, R.S., Havens, A.J., Stewart, R.A. & Karol, K.G. 2015. Distribution of *Nitellopsis obtusa* in New York, U.S.A. 35th Annual North American Lake Management Symposium, November 17-20, Saratoga Springs, NY.
- Sleith, R.S., Havens, A.J., Stewart, R.A. & Karol, K.G. 2015. Distribution of *Nitellopsis obtusa* (Characeae) in New York, U.S.A. 69th Annual Phycological Society of America Meeting, August 10-13, Philadelphia, PA.
- Sleith, R.S., Havens, A.J., Stewart, R.A. & Karol, K.G. 2015. Distribution of *Nitellopsis obtusa* (Characeae) in New York, U.S.A. 54th Annual Northeast Algal Symposium, April 17-19, Syracuse, NY.
- Sleith, R.S., Hall, J.D., McCourt, R.M. & Karol, K.G. 2014. The invasive macroalga *Nitellopsis obtusa* in New York State. Joint Aquatic Sciences Meeting, May 18-23, Portland, OR
- Sleith, R.S., Hall, J.D., McCourt, R.M. & Karol, K.G. 2014. The invasive macroalga *Nitellopsis obtusa* in New York State. 53rd Annual Northeast Algal Symposium, April 25-27, Newport, RI
- Sleith, R.S., Enquist, B.J., Lamanna, C.A., Harte, J., Crumbacher, L.L. & Wilson, M.J. 2007. Assessing two plant leaf functional traits across a temperature gradient. ESA/SER Annual Meeting, August 5-10, San Jose, CA
- Sleith, R.S., Roush, J., Beaudoin, B. & Coe, N.R. 2007. Beech Bark Disease in the Green Mountain National Forest: Survey, Analyses, and Implications. New England Society of American Foresters, Cycles in Forestry, March 20-23, Fairlee, VT

Outreach and Trainings

- Sleith, R.S., Wehr, J.D. & Karol, K.G. 2018. Tracing the movement of the invasive alga *Nitellopsis obtusa* (starry stonewort) and an update on bulbil viability studies. 40th Wisconsin Lakes Partnership Convention. April 18-20, Stevens Point, WI.
- Sleith, R.S., Wehr, J.D. & Karol, K.G. 2017. *Nitellopsis obtusa* in North America. Finger Lakes Research Conference. November 17, Geneva, NY.
- Sleith, R.S., Wehr, J.D. & Karol, K.G. 2017. *Nitellopsis obtusa* in New York and New England. USACE Starry Stonewort Workshop. September 7-8, Oconomowoc, WI.
- Sleith, R.S. & Karol, K.G. 2017. Ballast, Boats and Bobbers: Investigating an Aquatic Invasive Macroalga in the United States. Entwined Symposium 173BOT802, March 03, Bronx, NY.
- Sleith, R.S. & Karol, K.G. 2016. *Nitellopsis obtusa* in North America. Cornell Cooperative Extension: Agriculture, Food & Environmental Systems In-Service, November 02, Ithaca, NY.
- Sleith, R.S. & Karol, K.G. 2016. *Nitellopsis obtusa* in New York, U.S.A. Lake Champlain Basin Program Aquatic Invasive Species Seminar, July 14-15, Burlington, VT.
- Sleith, R.S. & Karol, K.G. 2016. *Nitellopsis obtusa* in New York, U.S.A. The *Nitellopsis* Working Group, June 6-8, Minneapolis, MN.
- Sleith, R.S. & Karol, K.G. 2015. *Nitellopsis obtusa* in New York, U.S.A. PRISM Invasive Species Summit, November 06, Bronx, NY.
- Sleith, R.S. & Karol, K.G. 2015. *Nitellopsis obtusa* in New York, U.S.A. Adirondack Watershed Institute Stewardship Training, Paul Smiths, NY.
- Sleith, R.S. & Karol, K.G. 2015. The Starry Stonewort: Chasing an Invasive Species Across the Northeast. Britton Gallery Talk Series, The New York Botanical Garden, Bronx, NY.

Awards and Honors

- Phycological Society of America – Ralph A. Lewin Poster Award*. 2016. The New York Botanical Garden, Bronx, NY
- Phycological Society of America – Hoshaw Travel Award*. 2016. The New York Botanical Garden, Bronx, NY
- Northeast Aquatic Plant Management Society – Graduate Scholarship*. 2016. The New York Botanical Garden, Bronx, NY
- Phycological Society of America – Grant in Aid of Research*. 2016 & 2017. The New York Botanical Garden, Bronx, NY
- North American Lake Management Society – Student Travel Grant*. 2015. The New York Botanical Garden, Bronx, NY
- Northeast Algal Society – Student Grant to Support Research*. 2015. The New York Botanical Garden, Bronx, NY
- International Phycological Society – P. C. Silva Student Grant*. 2015 & 2017. The New York Botanical Garden, Bronx, NY
- President's List*. 2004-2008. Green Mountain College, Poultney, VT
- Senior Biology Award*. 2008. Green Mountain College, Poultney, VT
- Distinguished Achievement in Biology*. 2007. Green Mountain College, Poultney, VT
- NSF – Travel Grant*. 2007. Ecological Society of America, San Jose, CA
- NSF – Research Experience for Undergraduates*. 2006. (PI, B. J. Enquist), Rocky Mountain Biological Laboratory, Gothic, CO

Professional Service

- Associate Editor, *Brittonia*, 2023-present
- Phycological Society of America Publication Committee, Student Representative, 2017-2019
- Plant Science Advisory Committee, Student Representative, CUNY Graduate Center, 2017-2018

Biology Program Executive Committee, Student Representative, CUNY Graduate Center, 2016-2017
Plant Science Advisory Committee, Student Representative, CUNY Graduate Center 2015-2016