

Isabella A. Oleksy

EDUCATION

2014-2019	Ph.D. in Ecology	Colorado State University • Fort Collins, CO Advisor: Dr. Jill Baron
2008-2012	B.S. in Environmental Science	University of New Hampshire • Durham, NH

PROFESSIONAL EXPERIENCE

Current	Faculty Fellow • Institute for Arctic and Alpine Research • Boulder, CO
Current	Assistant Professor • University of Colorado • Department of Ecology and Evolutionary Biology • Boulder, CO
2021-2023	Postdoctoral Research Scientist • University of Wyoming • Laramie, WY Supervisor: Dr. Sarah Collins
2019-2021	Postdoctoral Research Scientist • Cary Institute of Ecosystem Studies • Millbrook, NY Supervisor: Dr. Christopher Solomon
2017-2019	USGS Graduate Research Fellow • Colorado State University • Fort Collins, CO
2014-2017	NSF-IGERT Graduate Research Fellow • Colorado State University • Fort Collins, CO
2013-2014	Laboratory Manager • University of Michigan • Aquatic Disease Ecology Lab • Ann Arbor, MI
Summer 2012	NSF-REU Program Lead Technician • SUNY New Paltz • New Paltz, NY
Summer 2011	NSF-REU Fellow • SUNY New Paltz • New Paltz, NY
Fall 2010	Undergraduate Researcher • EcoQuest Education Foundation • Hochstetter's frog conservation • Whakatiwai, New Zealand
2010-2011	Undergraduate Researcher • University of New Hampshire • Department of Natural Resources • Durham, NH

FUNDED PROPOSALS

As PI

2023 **Oleksy, I.A., North, R., Richardson, D.C., Holgerson, M., and Morales, A.M, 2023-2027. Collaborative Research: On thin ice- implications of shorter winters for the future of freshwater phytoplankton phenology and function. *NSF Macrosystems*. Total award \$476,846.**

As co-PI

2023 **National Center for Ecological Analysis and Synthesis Morpho Initiative** • “Fire impacts to ecosystem services in the US West: Does prescribed burning work, for what and for whom?” • Lead PIs A. LoPresti and L. Dee with I.A. Oleksy as co-PI and 12 collaborators • \$149,490

2021 **Colorado Water Center's Competitive Grant Program** • “High elevation fire controls on reservoir and river algae blooms” • Lead PI Matt M.V. Ross with I.A. Oleksy as co-PI and 8 collaborators • \$35,000

FELLOWSHIPS | AWARDS

2021 **Outstanding Limnology & Oceanography Reviewer** • K. David Hambright, Editor-in-Chief • [L&O Bulletin highlight](#)

2018 **Graduate Degree Program in Ecology Travel Grant** • Colorado State University • \$850

- Front Range Student Ecology Symposium • 1st Place Best Oral Presentation
 Continental Divide Learning Center Research Grant • Rocky Mountain National Park • \$2500
 Graduate Student of the Year Award • Natural Resource Ecology Laboratory
- 2017 Natural Resource Ecology Laboratory Travel Grant • Colorado State University • \$500
 Francis Clark Soil Biology Fellowship • Colorado State University • \$3000
 School of Global Environmental Sustainability Leadership Fellowship • Colorado State University
 National Park Service-USGS Water Quality Partnership • Ineligible for PI/co-I status., co-wrote and developed with PIs J. Baron, A. Heard, K. Nydick • \$254,000
- 2016 Stable Isotope Biogeochemistry and Ecology (ISOCAMP) scholarship • \$2040
 Bailey Research Fellowship • Rocky Mountain Conservancy • \$11,000
 Student Travel Grant • Association for the Sciences of Limnology & Oceanography • \$500
 Student Travel Grant • Turner Designs • \$1000
- 2014 IGERT for Integrated Water, Atmospheric, Ecosystems Education and Research (I- WATER) Fellowship • National Science Foundation • \$72,000

PEER REVIEWED PUBLICATIONS

* Equal author contribution.

22. Meyer, M.F., Topp, S.N., King, T.V., Ladwig, R., Pilla, R.M., Dugan, H.A., Eggleston, J.R., Hampton, S.E., Leech, D.M., **Oleksy, I.A.**, Ross, J.C., Ross, M.R., Woolway, R.I., Yang, X., Brousil, M.R., Fickas, K.C., Padowski, J.C., Pollard, A.I., Ren, J., and Zwart, J.A. 2024. National-scale remotely sensed lake trophic state from 1984 through 2020. *Scientific Data* 11, 77. [10.1038/s41597-024-02921-0](https://doi.org/10.1038/s41597-024-02921-0)
21. Hampton, S.H., Baron, J.S., Ladwig, R., McClure R.P., Meyer, M.F., **Oleksy, I.A.**, Shampain, A. 2024. Warming-induced changes in benthic redox as a potential driver of increasing filamentous algal blooms in high-elevation lakes. *Limnology and Oceanography Letters* 9: 1-6. [10.1002/lol2.10357](https://doi.org/10.1002/lol2.10357)
20. Lewis, A.S.L., Lau, M.P., Janes, S.F., Rose, K.C., Be'eri-Shlevin, Y., Burnet, S.H., Clayer, F., Feuchtmayr, H., Grossart, H-P., Howard, D.W., Mariash, H., Martin, J.D., North, R.L. **Oleksy, I.A.**, Pilla, R.M., Smagula, A.P., Sommaruga, R., Steiner, S.E., Verburg, P., Wain, D., Weyhenmeyer, G.A., Carey, C.C. 2024. Anoxia Begets Anoxia: a positive feedback to the deoxygenation of temperate lakes. *Global Change Biology*. 30, e17046. [10.1111/gcb.17046](https://doi.org/10.1111/gcb.17046)
19. **Oleksy, I.A.**, Olson, C.R., Jones, S.E., Solomon, C.T. 2022. Hydrologic setting affects ecosystem processes. Book chapter in *Encyclopedia of Inlands Waters*, 2nd edition.
18. **Oleksy, I.A.**, Collins, S.M., Sillen, S.J., Topp, S., Austin, M., Hall, E.K., O'Reilly, C.M., Yang, X. and Ross, M.R. 2022. Heterogenous controls on lake color and trends across the high-elevation US Rocky Mountain region. *Environmental Research Letters*. doi: [10.1088/1748-9326/ac939c](https://doi.org/10.1088/1748-9326/ac939c)
17. Burpee, B.T., Saros, J.E., Nanus, L., Baron, J., Brahney, J., Christianson, K.R., Ganz, T., Heard, A., Hundey, B., Koinig, K.A., Kopacek, J., Moser, J. Nydick, K, **Oleksy, I.A.**, Sadro, S., Sommaruga, R., Vinebrook, R., Williams, J. 2022. Identifying factors that affect mountain lake sensitivity to atmospheric nitrogen deposition across multiple scales. *Water Research*. doi: [10.1016/j.watres.2021.117883](https://doi.org/10.1016/j.watres.2021.117883)
16. Ghosh, A., Robison, A.L., Chiapella, A.M., Bertolet, B.L., Selden, C., Perry, D., Reich, H.G., Oleksy, I., Isanta-Navarro, J., Aho, K.S. and Ganley, L., 2022. Ecological dissertations in the aquatic sciences: an

effective platform for developing professional collaborations among early career aquatic scientists. *Limnology and Oceanography Bulletin*, 31(1). doi: [10.1002/lob.10485](https://doi.org/10.1002/lob.10485)

15. **Oleksy, I.A.**, Solomon, C. T., Jones, S. E. 2021. Hydrologic setting dictates sensitivity of lake metabolism to climate variability. *Ecosystems*. doi: [10.1007/s10021-021-00718-5](https://doi.org/10.1007/s10021-021-00718-5)
14. Fork, M. L*, Anderson, E. C.* , Castellanos, A. A.* , Fischhoff, I. R.* , Matsler, A. M.* , Nieman, C. L.* , **Oleksy, I.A.***, Wong, M. Y.* 2021. Creating community: How we collectively built an adaptable postdoctoral program to develop skills and overcome isolation. *Ecosphere*. [10.1002/ecs2.3767](https://doi.org/10.1002/ecs2.3767)
13. Atkins, K., Shanon, T., Meyer, M.* , **Oleksy, I.A.***, Framsted, N., Hackley, S., Merrell K., Gurung, D., Wozniak, M. 2021. Integrating ecological and hydrological perspectives in understanding lake surface-groundwater processes. *Limnology and Oceanography Methods*. doi: [10.1002/lom3.10467](https://doi.org/10.1002/lom3.10467)
12. Clark, S. C., Barnes, R. T., **Oleksy, I.A.**, Baron, J. S., Hastings, M G. 2021. The reactive nitrogen landscape in the high Colorado alpine: quantifying atmospheric inputs. *Environmental Science and Technology*. doi: [10.1021/acs.est.1c02515](https://doi.org/10.1021/acs.est.1c02515)
11. Vadeboncoeur, Y., Moore, M. V., Stewart, S. D., Chandra, S., Atkins, K. S., Baron, J. S., Bouma-Gregson, Keith, Brothers, S., Fancouer, S. N., Genzoli, L. Higgins, S. N., Hilt, S., Katona, L. R., Kelly, D., **Oleksy, I.A.**, Ozersky, T., Power, M. E., Roberts, D., Smits, Adrienne P., Tromboni, F., Zanden M. J. V., Volkova, E. A., Waters, A. S., Wood, S. A., Yamamuro, M. 2021. Blue waters, green bottoms: attached filamentous algal blooms (FABs) are an emerging threat to clear lakes worldwide. *BioScience*. doi: [10.1093/biosci/biab049](https://doi.org/10.1093/biosci/biab049)
10. **Oleksy, I.A.**, Richardson, D. C. 2021. Climate change and teleconnections amplify lake stratification with differential local controls of surface water warming and deep water cooling. *Geophysical Research Letters*. doi: [10.1029/2020GL090959](https://doi.org/10.1029/2020GL090959)
9. **Oleksy, I.A.**, Baron, J. S., Beck, W. 2021. Nutrients and warming alter mountain lake benthic algal structure and function. *Freshwater Science*. doi: [10.1086/713068](https://doi.org/10.1086/713068)
8. Baron, J. S., Clow D. W., **Oleksy, I.A.**, Weinmann T., Charlton C., Jayo A. 2021. Long-term ecosystem and biogeochemical research in Loch Vale watershed, Rocky Mountain National Park, Colorado. *Hydrologic Processes*. doi: [10.1002/hyp.14107](https://doi.org/10.1002/hyp.14107)
7. **Oleksy, I.A.**, Beck, W., Lammers, R., Steger, C., Christianson, K., Wilson, C., Johnson, G., Vincent, K., Johnson, P., Baron, J.B. 2020. The role of warm, dry summers and variation in snowpack on phytoplankton dynamics in mountain lakes. *Ecology*. doi: [10.1002/ecy.3132](https://doi.org/10.1002/ecy.3132)
6. **Oleksy, I.A.**, Baron, J. S., Leavitt, P. R., Spaulding S. A. 2020. Nutrients and warming interact to force mountain lakes into unprecedented ecological states. *Proceedings of the Royal Society B*. doi: [10.1098/rspb.2020.0304](https://doi.org/10.1098/rspb.2020.0304)
5. Ren, Z.* , Martyniuk, N.* , **Oleksy, I.A.***, Swain, A.* , Hotaling, S. 2019. Ecological stoichiometry of the mountain cryosphere. *Frontiers in Ecology and Evolution*. doi: [10.3389/fevo.2019.00360](https://doi.org/10.3389/fevo.2019.00360) * Equal author contribution.
4. Moser, K. A., Baron, J. S., Brahney, J., **Oleksy, I.A.**, Saros, J. E., Hundey, E. J, Sadro, S. A., Kopacek, J., Sommaruga, R., Kainz, M. J., Strecker, A. L., Chandra, S., Walters, D .M., Preston, D. L., Michelutti, N., Lepori, F., Spaulding, S. A., Christianson, K. R., Melack, J. M., Smol, J. P. 2019. Mountain lakes: Eyes on global environmental change. *Global and Planetary Change*. doi: [10.1016/j.gloplacha.2019.04.001](https://doi.org/10.1016/j.gloplacha.2019.04.001)
3. Beck, W. S., Markman, D. W., **Oleksy, I.A.**, Lafferty, M. H., Poff, N .L. 2018. Seasonal shifts in the importance of top-down and bottom-up factors on periphyton community structure. *Oikos*. doi: [10.1111/oik.05844](https://doi.org/10.1111/oik.05844)

2. Searle, C. L., Cortez, M. H., Hunsberger, K. K., Grippi, D. C., **Oleksy, I.A.**, Shaw, C. L., de la Serna, S. B., Lash, C. L., Dhir, K. L., Duffy, M. A. 2016. Population density, not host competence, drives patterns of disease in an invaded community. *The American Naturalist*. doi: [10.1086/688402](https://doi.org/10.1086/688402)
 1. Richardson, D. C., **Oleksy, I.A.**, Hoellein, T. J., Arscott, D. B., Gibson, C. A., Root, S. M. 2014. Habitat characteristics, temporal variability, and macroinvertebrate communities associated with a mat-forming nuisance diatom (*Didymosphenia geminata*) in Catskill mountain streams, New York. *Aquatic Sciences*. doi: [10.1007/s00027-014-0354-7](https://doi.org/10.1007/s00027-014-0354-7)
- In revision **Oleksy, I.A.**, Solomon, C.S., Jones, S.E., Olsen, C., Bertolet, B., and 40 other co-authors in the GLEON Lake Metabolism Working Group. Controls on lake primary productivity: formalizing the nutrient-color paradigm. *Limnology and Oceanography Letters*
- In review Tronstad, L.M., **Oleksy, I.A.**, Preston, D.L., Gianniny, G., Cook, K., Holley, A., Farnes, P., Koel, T., Hotaling, S. Despite a century of warming, increased snowfall has buffered the ice phenology of North America's largest high-elevation lake against climate change. *Environmental Research Letters*. Pre-print: [10.31223/X5JQ10](https://doi.org/10.31223/X5JQ10)
- In revision **Oleksy, I.A.**, Richardson, D.C. Changing ice seasons and phenology affect under-ice lake thermal dynamics. *Geophysical Research Letters*. Pre-print: [10.31223/X5XW8S](https://doi.org/10.31223/X5XW8S)
- In revision Rock, L.A., Shoup, B., Ajowele, J.A., Brédoire, F., **Oleksy, I.A.**, Tetrick, M., Williams D.G., Collins, S.M. Watershed responses to climate change driven disturbances in temperate montane ecosystems. *Global Change Biology*
- In review Meyer, M., Kraemer, B., Barbosa, C., Cunha, D., Dodds, W., Hampton, S., Ordóñez, C., Pilla, R., Pollard, A., Culpepper, J., Fremier, A., King, T., Ladwig, R., Leech, D., Matsuzaki, S-I., **Oleksy, I.A.**, Topp, S., Woolway, R.I., Brighenti, L., Fickas, K., Lanouette, B., Padowski, J., Ren, J., Yang, X. Clarifying the trophic state concept to expand limnology, management, and interdisciplinary collaboration. Pre-print: [10.31223/X5VH57](https://doi.org/10.31223/X5VH57)
- In review Lowman, H.E., DeSiervo, M., Hall, R.O., Jahner, J.P., Jimoh, S.O., Laughlin, D.C., Patterson, A.C., Weiss-Lehman, C., Barbosa, C.B., Bell, K.L., Blaszcak, J.R., Buerkle, C.A., Carter, A., Collins, S.M., DeLeo, V., Dunkle, M., Gannon, D., Grames, E.M., Harrison, J.G., McFarlane, S.E., Oleksy, I.A., Powers, B.F., Ray, C., Stears, A., Summers, B., Torrens C.L., Trentman, M., Werner C.M., Shoemaker, L.G. A call for collaborative consortia for postdoctoral workforce development. *PNAS Opinions*.

DATA | TUTORIALS | NON-PEER REVIEWED PUBLICATIONS

- 2023 Meyer, M.F., Topp, S.N. , King, T.V., Ladwig, R., Pilla, R.M., Dugan, H.A., Eggleston, J.R., Hampton, S.E., Leech, D.M., **Oleksy, I.A.**, Ross, J.C. , Ross, M.R. , Woolway, R.I. , Yang, X., Brousil, M.R. , Fickas, K.C. , Padowski, J.C. , Pollard, A.I., Ren, J., and Zwart, J.A. 2023. National-scale, remotely sensed lake trophic state (LTS-US) 1984-2020 ver 1. Environmental Data Initiative. [10.6073/pasta/212a3172ac36e8dc6e1862f9c2522fa4](https://doi.org/10.6073/pasta/212a3172ac36e8dc6e1862f9c2522fa4) (Accessed 2023-04-13).
- 2023 Meyer, M.F., Topp, S.N. , King, T.V., Ladwig, R., Pilla, R.M., Dugan, H.A., Eggleston, J.R., Hampton, S.E., Leech, D.M., **Oleksy, I.A.**, Ross, J.C. , Ross, M.R. , Woolway, R.I. , Yang, X., Brousil, M.R. , Fickas, K.C. , Padowski, J.C. , Pollard, A.I., Ren, J., and Zwart, J.A. 2023. National-scale, remotely sensed lake trophic state (LTS-US) 1984-2020 ver 1. Environmental Data Initiative. [10.6073/pasta/212a3172ac36e8dc6e1862f9c2522fa4](https://doi.org/10.6073/pasta/212a3172ac36e8dc6e1862f9c2522fa4) (Accessed 2023-04-13).
- 2022 Meyer, M.F., Barbosa, C.C., Ladwig, R., Mesman, J.P., Börekçi, N.S., Cawley, K., Feldbauer, J, **Oleksy, I.A.**, Pilla, R.M., Tran, P.Q. and Zwart, J.A., 2022. Hacking Limnology Workshop and DSOS22: Creating

- a Community of Practice for the Nexus of Data Science, Open Science, and the Aquatic Sciences. *Limnology and Oceanography Bulletin*. doi: [10.1002/lob.10485](https://doi.org/10.1002/lob.10485)
- 2022 Ghosh, A., Robison, A.L., Chiapella, A.M., Bertolet, B.L., Selden, C., Perry, D., Reich, H.G., **Oleksy, I.A.**, Isanta-Navarro, J., Aho, K.S. and Ganley, L., 2022. Ecological dissertations in the aquatic sciences: an effective platform for developing professional collaborations among early career aquatic scientists. *Limnology and Oceanography Bulletin*, 31(1). doi: [10.1002/lob.10525](https://doi.org/10.1002/lob.10525)
- 2021 Erdmann, C., Meyer, M.F., Little, J.R., Hondula, K., Stachelek, J., **Oleksy, I.A.**, Brousil, M.R., Claborn, K., Mesman, J., Dennis, T. Guidance for AGU Authors: R Script(s)/Markdown. [10.5281/zenodo.5647998](https://doi.org/10.5281/zenodo.5647998)
- 2021 Meyer, M.F., Ladwig, R., **Oleksy, I.A.**, Mesman, J., Zwart, J., Cramer, A.N., ..., Barbosa, C.C. AEMON-J/DSOS Archive: "Hacking Limnology" Workshop + Virtual Summit in Data Science & Open Science in Aquatic Research. <http://osf.io/682v5>
- 2021 Meyer, M., Ladwig, R., Mesman, J., **Oleksy, I.A.**, Barbosa, C.C., Cawley, K., Cramer, A., Feldbauer, J., Tran, Patricia, Zwart, J., López M, G, Shikhani, M, Gurung, D, Hensley, R, Matta, E, McClure, R, Petzoldt, T, Sánchez-López, N, Soetaert, K, Thomas, M.M., Topp, S, Yang, X. The AEMON-J "Hacking Limnology" Workshop Series & Virtual Summit: Incorporating Data Science and Open Science in Aquatic Research. *Limnology and Oceanography Bulletin*. doi: [10.1002/lob.10475](https://doi.org/10.1002/lob.10475)
- 2021 **Oleksy, I.A.** and Baron, J.S., 2021. Field measurements, laboratory, and field experimental data for Sky Pond, Rocky Mountain National Park Colorado, nutrient, and warming study, 2015-2017: U.S. Geological Survey data release, doi: [10.5066/P9UR2K3E](https://doi.org/10.5066/P9UR2K3E).
- 2020 Mohonk Preserve, Belardo, C., Feldsine, N., Huth, P., Long, E.C., Napoli, M., **Oleksy, I.A.**, Richardson, D.C., Smiley, D., Thompson, J. 2020. Weekly and high frequency temperature profile data and Secchi depth, Mohonk Lake, NY, USA, 1985 to 2017. Environmental Data Initiative, doi: [10.6073/pasta/7b67399344129afc63cd57e99e778160](https://doi.org/10.6073/pasta/7b67399344129afc63cd57e99e778160).
- 2019 **Oleksy, I.A.** Baron, J.S., Leavitt, P., Spaulding, S.A., 2019, Paleoecological data from The Loch and Sky Pond, Rocky Mountain National Park: USGS data release, doi: [10.5066/P9MVU3CX](https://doi.org/10.5066/P9MVU3CX).
- 2017 **Oleksy, I.A.**, Culpepper, J. 2017. Understanding mountain lakes in a changing world. EOS. doi: [10.1029/2017EO082281](https://doi.org/10.1029/2017EO082281)

INVITED TALKS

- 2022 **California Lake Management Society** • *Virtual webinar* • April 2022
"Blue waters, clear bottoms: how high-elevation lakes are responding to climate change and regional air pollution"
- 2021 **Association for the Sciences of Limnology and Oceanography** • *Virtual conference*
"Hydrologic setting dictates sensitivity of lake metabolism to climate variability" in Special Session *Controls and Limits on Freshwater Productivity* <https://youtu.be/jasOykp3eFg>
- 2021 **Data Science and Open Science** • 2nd Annual *Virtual Summit*
"Using sparse models to gain a deeper, mechanistic understanding of freshwater ecosystems"
<https://youtu.be/BqEk5U2bKc4>
- 2021 **New York State Lake Federation**
"Lake warming and increased stratification at Mohonk Lake and across northeastern North America"
- 2020 **Spring seminar series** • **Cary Institute of Ecosystem Studies** • *Millbrook, NY*
"Algal blooms in the alpine: investigating the coupled effects of warming and nutrient deposition on mountain lakes"

- 2019 **Ecology & Evolutionary Biology Department • University of Colorado • Boulder, CO**
 “Warm, dry summers and declining snowpack enhance primary productivity of small alpine lakes”
- 2018 **MtnClim • Consortium for Integrated Climate Research in Western Mountains • Crested Butte, CO**
 “Dominant controls on mountain lake productivity differ between short time scale, regional datasets and local, long-term datasets.” *Early career scientist session*
- 2017 **Impacts of a Changing Cryosphere on High Elevation Climate, Weather, and Aquatic Ecosystems • a US-China Cooperative Workshop • Qinghai Lake, Tibet**
 “Impacts of global change on lakes in the central Rocky Mountains: a paleoecological perspective.”
- 2017 **Rocky Mountain National Park Annual Research Conference • Estes Park, CO**
 “Is there a history of eutrophication preserved in the sediments of The Lock, Rocky Mountain National Park?”

CONTRIBUTED PRESENTATIONS

- 2023 **American Geophysical Union • San Francisco, CA • December 2023**
 “Widespread Impacts of Wildfires on Lake Color”
- 2023 **Association for the Sciences of Limnology and Oceanography • Majorca, Spain • June 2023**
 “Lake color responses to wildfires in the western United States”
- 2022 **Joint Aquatic Sciences Meeting • Grand Rapids, Michigan • May 2022**
 “Lake color responses to wildfires in the western United States”
- 2020 **Association for the Sciences of Limnology and Oceanography • Cancelled due to COVID-19 pandemic**
 “Hydrologic setting and climate variability control primary production: results from a long-term multi-lake study”
- 2019 **American Geophysical Union • San Francisco, CA • December 2019**
 “Understanding drivers of mountain lake phytoplankton across space and time.”
- 2019 **Society for Freshwater Science • Salt Lake City, UT**
 “Disentangling the effects of nutrient enrichment and warming on high-elevation lake benthic algal communities”
- 2018 **Association for the Sciences of Limnology and Oceanography • Victoria, British Columbia, CAN**
 “A warmer and greener world: evidence of algal assemblage shifts from lake sediment core records in Rocky Mountain National Park.” *Session co-chair*
- 2018 **Front Range Student Ecology Symposium • Fort Collins, CO**
 “A warmer and greener world: evidence of algal assemblage shifts from lake sediment core records in Rocky Mountain National Park.”
- 2017 **Association for the Sciences of Limnology and Oceanography • Honolulu, HI**
 “Is there a history of eutrophication preserved in the sediments of The Loch, Rocky Mountain National Park?”
- 2016 **Association for the Sciences of Limnology and Oceanography • Santa Fe, NM**
 “Algal blooms in the alpine – investigating the coupled effects of chronic nitrogen deposition and climate change on alpine lakes.”
- 2016 **MtnClim • Consortium for Integrated Climate Research in Western Mountains • Leavenworth, WA**
 “Algal blooms in the alpine – investigating the effects of global change on alpine lakes”
AGU Hydrology Days • Fort Collins, CO

“Algal blooms in the alpine – investigating the coupled effects of chronic nitrogen deposition and climate change on alpine lakes.”

- 2015 **Gordon Research Conference • Catchment Science • Andover, NH**
“Investigating the coupled effects of climate change and nitrogen on lake periphyton.”
- 2015 **AGU Hydrology Days • Fort Collins, CO**
“Investigating the coupled effects of climate change and nitrogen on lake periphyton.”
- 2012 **Catskill Environmental Monitoring and Research • Olivebridge, NY**
“*Didymosphenia geminata* (rock snot) in the New York City watershed – factors that affect the growth, spatial distribution, and timing of the bloom in the Esopus Creek (2010-2012).”
- 2012 **Ecological Society of America • Sacramento, CA**
“A spatial analysis of *Didymosphenia geminata* (rock snot) in the New York City watershed. Ecological Society of America annual meeting.”

CO-AUTHORED PRESENTATIONS

† undergraduate student advisee., * graduate student advisee

- 2022 Meyer, M.F., Barbosa, C.C., Cawley, K.M., Cramer, A.N., Feldbauer, J., Ladwig, R., Mesman, J.P., **Oleksy, I.A.**, Tran, P.Q., Zwart, J.A. “Growing a data science and open science community for the aquatic sciences during a global pandemic” Joint Aquatic Sciences Meeting • *Grand Rapids, Michigan* • Keynote talk scheduled for May 2022
- 2022 Baron, J.S., Shampain, A.* , Charlton, C. *, **Oleksy, I.A.**, Spaulding S., Leavitt, P. “Divergent responses of alpine lakes to regional and global change drivers since 1800.” Ecological Society of America • *Montreal, Canada* • *Scheduled for August 2022*
- 2022 Meyer, M.F., Eggleston, J.R., Hampton, S.E., King, T.V., Ladwig, R., Leech, D.M., **Oleksy, I.A.**, Pilla, R.M., Pollard, A.I., Ross, M.R.V., Topp, S.N., Yang, X., Zwart, J.A. “Assessing trends in and drivers of lake trophic status change at continental scales.” Pecora Symposium • *Denver, CO* • *Scheduled for October 2022*
- 2020 Jones, S.E., Hotchkiss, E., Solomon, C.S., Butman, Dugan, H., Gardner, J., Helton, A., **Oleksy, I.A.**, Koenig, L., Ross, M.R.V., Sadro, S., Sebestyen, S., Zarnetsky, J. “Landscape Mosaics: Implications of aquatic landscape configuration for biogeochemistry” Association for the Sciences of Limnology and Oceanography • *Cancelled due to COVID-19 pandemic*
- 2020 Richardson, D.C., **Oleksy I.A.**, “Climate change and teleconnections affect interannual patterns of lake warming and stratification phenology” Association for the Sciences of Limnology and Oceanography • *Cancelled due to COVID-19 pandemic*
- 2020 Dean, R.N., **Oleksy, I.A.**, Bowker, D., Clark, S.C., Weinmann, T. “Applying low-cost PCB sensor technology for monitoring electrochemical changes in alpine lakes in Rocky Mountain National Park from 2016-2019” Rocky Mountain National Park Research Conference • *Cancelled due to COVID-19 pandemic*
- 2019 Clark, S.C., Barnes, R.T., Gratz, L.E., Cerf, E.F., **Oleksy, I.A.**, Baron, J.S., Hastings, M.G. “The reactive nitrogen landscape in the high Colorado alpine: quantifying atmospheric inputs” American Geophysical Union • *San Francisco, CA*
- 2019 Baron, J.S., **Oleksy, I.A.**, Weinmann T., Charlton, C., Jayo, A. “Thirty-Six Years in the Subalpine: Long-Term Ecosystem and Biogeochemical Research in Loch Vale Watershed, Rocky Mountain National Park, Colorado.” American Geophysical Union • *San Francisco, CA*

- 2018 Clark, S.C., Barnes, R.T., **Oleksy, I.A.**, Baron, J.S., Hastings, M.G., “Nutrient cycling in a warming alpine environment: investigating the provenance and persistence of atmospheric nitrate and ammonium deposition using stable isotopes.” American Geophysical Union *Washington D.C.*
- 2018 Beck, W. S., Markman, D. W., **Oleksy, I.A.**, Lafferty, M. H., and Poff, N. L. “Seasonal shifts in the importance of bottom-up and top-down factors on stream periphyton community structure.” Ecological Society of America • *New Orleans, LA*
- 2018 Baron, J.S., **Oleksy, I.A.** “A tale of two lakes: alpine and subalpine lake responses to a warmer and greener world.” Ecological Society of America • *New Orleans, LA*
- 2018 Culpepper, J., Baron, J., Sadro, S., **Oleksy, I.A.**, Vinebrooke, R., Hampton, S., Smits, A., Moser, K., Brahney, J., Strecker, A., Chandra, S., Williams, J., Fradkin, S., Nanus, L., Rosen, M., Noble, P. “A conceptual model for understanding the role of mountain gradients on lakes.” Association for the Sciences of Limnology and Oceanography • *Victoria, British Columbia, CAN*
- 2017 Baron, J.S., **Oleksy, I.A.**, Leavitt, P.R., “Is there a history of eutrophication preserved in the sediments of Loch Vale (RMNP) lakes?” Natural Resource Ecology Laboratory 50th Anniversary Symposium • *Fort Collins, CO*
- 2017 Price, J.R., Szymanski, D.W., **Oleksy, I.A.**, Bricker, S., Burden, B., Cronister, K., Nunez, J. Schippert, L., Devine, T.J. “Mechanisms for increased phosphorus inputs and consequent enhanced lacustrine productivity during the younger dryas chronozone in The Loch, Rocky Mountain National Park, Colorado, USA.” Geological Society of America • *Seattle, WA*
- 2017 Ralson, M., † **Oleksy, I.A.** “Identifying temporal algal community shifts using a sedimentary eDNA approach in Sky Pond.” CSU 23rd Annual Celebrate Undergraduate Research and Creativity Conference • *Fort Collins, CO*
- 2017 Meraz, D., † **Oleksy, I.A.** “Visualizing temperature and algal biomass through space and time using GIS spatial interpolation tools.” CSU 23rd Annual Celebrate Undergraduate Research and Creativity Conference • *Fort Collins, CO*
- 2017 Dean, R.N., **Oleksy, I.A.**, Bowker, D., Clark, S.C., Weinmann, T. “A PCB Sensor Suite for Monitoring the Effects of Annual Variations in Precipitation Rates on Alpine Lakes in Rocky Mountain National Park.” International Microelectronics Assembly and Packaging Society • *Fountain Hills, AZ*
- 2016 Baron, J.S., **Oleksy, I.A.**, “What is a typical condition for small, rocky mountain lakes?” Association for the Sciences of Limnology and Oceanography • *Santa Fe, NM*
- 2016 Johnstone, J., † **Oleksy, I.A.** “Elucidating the impacts of N deposition and climate warming on a sub-alpine lake – a paleolimnology story.” CSU 22nd Annual Celebrate Undergraduate Research and Creativity Conference • *Fort Collins, CO*
- 2015 Duffy, M.A., Hunsberger, K., **Oleksy, I.A.** “Impacts of two virulent, sterilizing pathogens on *Daphnia* individuals, populations, and communities.” Ecological Society of America • *Sacramento, CA*
- 2015 Searle, C., Hunsberger, K., Grippi, D.C., **Oleksy, I.A.** “Exotic species and native parasites: Biotic resistance versus parasite spillback.” Ecological Society of America • *Sacramento, CA*
- 2014 Shaw, C., **Oleksy, I.A.**, Searle, C., Grippi, D.C. “Effects of *Chaoborus* predation on size of *Pasteuria ramosa* epidemics in natural *Daphnia* populations.” Ecological Society of America • *Sacramento, CA*
- 2014 Duffy, M.A., Searle, C.L., Auld, S., **Oleksy, I.A.** “Multi-host interactions in the plankton: Influences of *Daphnia* host diversity on the common bacterial parasite *Pasteuria ramosa*.” Ecological Society of America • *Sacramento, CA*

WORKING GROUPS

Mountain Lake Working Group • *Leaders: myself, Jill Baron (USGS), Sudeep Chandra (University of Nevada-Reno).* Approximately 30 academic and government research partners across 4 continents. Efforts have results in 2 workshops, 1 conference session, 1 special issue in *Aquatic Sciences*, 2 peer-reviewed publications

Lake Metabolism Working Group • *Leaders: myself, Christopher Solomon (Cary Institute of Ecosystem Studies), Stuart Jones (University of Notre Dame).* Participants include approximately 40 academics in the Global Lake Ecological Observatory Network who are contributing lake metabolism and river inflow data. The goal of the project is to calibrate a model for predicting primary production in lakes from inflow chemistry, lake morphometry, and residence time. Forthcoming products include a paper to be submitted to *Limnology and Oceanography* as well as a dataset of daily estimates of primary production and ecosystem respiration for 63 lakes across North America, Europe, Asia, and New Zealand.

Filamentous Algal Blooms Working Group • *Leaders: Yvonne Vadeboncouer (Wright State University), Sudeep Chandra (University of Nevada-Reno), Marianna V. Moore (Wellesley College).* Efforts have resulted in 1 workshop and 2 peer-reviewed publications

STUDENT ADVISEES

Annabelle McCarthy • *Undergraduate researcher in Cary Institute REU program*

Turbidity in relation to high flow events in the Hudson River estuary

Mitch Ralson • *Skills for Undergraduate Participation in Ecological Research (SUPER) student researcher*

Algal community changes through time inferred by sedimentary algal DNA

Melanie Burnett • *Honors Thesis Student*

Spatial and temporal variation in periphyton ecological stoichiometry

Diane Meraz • *SUPER student researcher*

Mapping spatial and temporal variability in periphyton biomass in ArcGIS

Jessica Johnson • *SUPER student researcher*

Investigating carbon and nitrogen concentrations and stable isotopic composition in mountain lake sediments

TEACHING

Fall 2023 **Limnology** • *University of Colorado Boulder* • EBIO 3040

Winter 2020 **Fundamentals of Ecosystem Ecology** • Freshwater module • *Cary Institute of Ecosystem Studies* • Co-instructor with Dr. Chris Solomon

Fall 2019 **EUS 102** • Introduction to Environmental Systems Science • *Bard College* • Guest lecturer for Dr. Robyn Smyth

Spring 2019 **ECOL 592** • Advances in Freshwater Metabolism • *Colorado State University* • Co-instructor with Dr. Jill Baron

Spring 2018 **ESS 411** • Earth Systems Ecology • *Colorado State University* • Recitation coordinator for Dr. John Moore

Spring 2017 **BZ 472** • Stream Biology & Ecology Laboratory • *Colorado State University* with Dr. LeRoy Poff Assisted with field laboratory on stream macroinvertebrate and algal monitoring module

Fall 2016-2018 **ESS 311** • Ecosystem Ecology • *Colorado State University* • Annual guest lecturer for Dr. Stacy Lynn

PROFESSIONAL SERVICE

Global Lake Ecological Observatory Network – co-moderator and facilitator of the Metabolism Working Group with Dr. Tonya DelSontro, leader of the '[Trade-offs](#)' project, co-leader of the metabolism sensitivity project with Dr. Facundo Scordo

Peer Review: Limnology & Oceanography • Limnology & Oceanography Letters • Water Resources Research • Arctic, Alpine, and Antarctic Research • Polar Research • Environmental Monitoring and Assessment • University of California Press

Societies: Association for the Science of Limnology & Oceanography • Ecological Society of America • Society for Freshwater Science • American Geophysical Union

- 2021-2023 **Virtual Summit: Incorporating Data Science and Open Science in Aquatic Research** • co-organizer
- 2020-2021 **Justice in Ecology seminar series** • co-organizer • Cary Institute of Ecosystem Studies
- 2017-2019 **NREL Communications Coordinator** • Editor-in-chief of EcoPress blog for Natural Resource Ecology Laboratory, manager of the institute's social media accounts and website, voice for graduate students
- 2017 **Outreach and advising committee** • Front Range Ecology Student Symposium
- 2016 **Registration coordinator** • Front Range Ecology Student Symposium
- 2015-2016 **Student representative** • Natural Resource Ecology Laboratory Executive Committee

COMMUNITY ENGAGEMENT and SCIENCE COMMUNICATION

- 2017-2019 **Popular science contributor** • EcoPress • HumanNature • Medium • EOS
- 2019 **Interview with Colorado Public Radio** • How the longest government shutdown affected my science
- 2018 **Community Lecture for NPS staff** • Sequoia National Park • *Three Rivers, CA*
- 2017 **Community Lecture for the public** • Rocky Mountain Conservancy • *Estes Park, CO*
- 2016 **Brown bag research talk for NPS staff** • Rocky Mountain National Park • *Estes Park, CO*
- 2016 **Developed a citizen science & alpine algal monitoring program** • [WATR app](#)
- 2015 **Science fair judge** • Bella Romero Elementary School • *Greeley, CO*

OTHER EXPERIENCES and INTERESTS

Semi-professional, sponsored bike racer • SCUBA certified • wilderness first aid certified • long-distance backpacker • fiddle player

- 2018-2020 **Co-founder of Sugar Beets Cycling, professional women's cycling team** • *Fort Collins, CO*
- 2014-2017 **Independent, sponsored mountain bike racer** • *Fort Collins, CO*
- 2010-2012 **UNH Cycling Team Captain & President** • *University of New Hampshire, NH*
- 2008-2012 **Collegiate competitive cycling** • DI Athlete • *University of New Hampshire, NH*