Claire G. Griffin

Postdoctoral Research Fellow
Department of Environmental Sciences · University of Virginia· Charlottesville, VA
griffin.claireg@gmail.com
512-423-0117
www.claireggriffin.com

Education:

2016	**Ph.D., Marine Science** Marine Science Institute, University of Texas at Austin, Port Aransas, TX
2010	**B.A., Geography,** *summa cum laude,* with Highest Honors in Geography School of Geography, Clark University, Worcester, MA

Professional Experience:

2019 - present	**Postdoctoral Fellow**, Environmental Resilience Institute and Department of Environmental Sciences, University of Virginia, Charlottesville, VA.
2016 - 2018	**Postdoctoral Associate**, Department of Ecology, Evolution and Behavior, University of Minnesota, Saint Paul, MN.
2010 - 2016	**Graduate Research Assistant**, Marine Science Institute, University of Texas at Austin, Port Aransas, TX.

Teaching Experience:

2020 (*upcoming*)	**Instructor of Record**, Arctic Ecology, undergraduate and graduate course, University of Virginia, Charlottesville, VA.
2017	**Instructor of Record,** Biogeochemical Processes, undergraduate and graduate course, University of Minnesota, Saint Paul, MN.
2012	**Teaching Assistant**, Coastal Watersheds, undergraduate field course. Marine Science Institute, University of Texas at Austin, Port Aransas, TX.

Publications:

Griffin, C. G., K. E. Frey, R. M. Holmes, J. W. McCelland (*under review*). Decadal-scale dissolved organic matter concentrations and fluxes across the pan-Arctic from satellite remote sensing. *Global Biogeochemical Cycles.*

Chen, Y., W. A. Arnold, **C. G. Griffin**, L. G. Olmanson, P. L. Brezonik, R. Hozalski (2019). Assessment of the chlorine demand and disinfection byproduct formation potential of surface waters via satellite remote sensing. *Water Research.*

Brezonik, P.L, J.C. Finlay, **C. G. Griffin**, E. Boardman, N. Germolus, R. M. Hozalski, L. G. Olmanson, W. A. Arnold (2019). Iron influence of dissolved color in lakes of the Upper Great Lake States. PLoS ONE 14(2): e0211979. https://doi.org/10.1371/journal.pone.0211979.

Brezonik, P.L., W. Bouchard, J.C. Finlay, **C. G. Griffin**, L. G. Olmanson, J. Anderson, W. A. Arnold, R. M. Hozalski (2019). Color, chlorophyll-*a*, and suspended solids effects on Secchi depth in lakes of the Upper Midwest: Implications for trophic state assessment. Ecological Applications. https://doi.org/10.1002/eap.1871.

Griffin, C. G., P. L. Brezonik, J. C. Finlay, L. Olmanson, R. Hozalski (2018). Limitations on using CDOM as a proxy for DOC in temperate lakes. Water Research, 44, doi:10.1016/j.watres.2018.08.007

Griffin, C.G., J.W. McClelland, K. E. Frey, G. Fiske, R. M. Holmes (2018). Quantifying CDOM and DOC in major Arctic rivers during ice-free conditions using Landsat TM and ETM+ data. Remote Sensing of Environment, 209C pp. 395-409, doi: 10.1016/j.rse.2018.02.060.

Feng, X., J. E. Vonk, **C. G. Griffin**, N. Zimov, D. B. Montlucon, L. Wacker, T. I Eglington (2017). ^{14}C variation of dissolved lignin in arctic river systems. ACS Earth and Space Chemistry, doi: 10.1021/acsearthspacechem.7b00055.

McClelland, J. W., R. M. Holmes, B. J. Peterson, P. A. Raymond, R. G. Striegl, A. V. Zhulidov, S. A. Zimov, N. Zimov, S. E. Tank, R. G. M. Spencer, R. Staples, T. Y. Gurtovaya, **C. G. Griffin** (2016). Particulate organic carbon and nitrogen export from major Arctic rivers. Global Biogeochemical Cycles, 30, 629-643, doi: 10.1002/2015GB005351.

Tavakoly, A. A., D. R. Maidment, J. McClelland, T. Whiteaker, Z. -L. Yang, **C. G. Griffin**, C. H. David, and L. Meyer (2015). A GIS Framework for Regional Modeling of Riverine Nitrogen Transport: Case Study, San Antonio and Guadalupe Basins. Journal of the American Water Resources Association (JAWRA), doi: 10.1111/1752-1688.12355.

Griffin, C. G., K. E. Frey, J. Rogan, and R. M. Holmes (2011). Spatial and interannual variability of dissolved organic matter in the Kolyma River, East Siberia, observed using satellite imagery. Journal of Geophysical Research 116, G03018, doi:10.1029/2010JG001634.

Fellowships and Grants:

University of Virginia Center for Global Inquiry and Innovation (submission Nov. 11) $100,000
"Arctic Environmental Data Narratives: Understanding Interactions between the Natural, Built, and Human Environment Through an Integrated Sensor Network", with Howard Epstein (Lead PI), Matthew Jull (co-PI), Leena Cho (co-PI), **Claire Griffin** (co-PI). Funding for a proof-of-concept study to install a sensor network in Utqiagvik to explore fine scale climate, soil, and water variations in the Arctic.

American Geophysical Union Centennial Award (2019) $10,000
"Bridging Science, Art, and Community in the New Arctic Conference and Symposium Supplement" with Claire Griffin (Lead PI, UVA). Funding to bring students from the Arctic Youth Ambassador program to a workshop on integrating community and science in the Arctic.

University of Texas Marine Science Endowment Graduate Fellowship (2015-2016) $30,000

One year of stipend and tuition awarded to senior graduate students to complete thesis or dissertation research.

NSF Graduate Research Fellowship (2012-2015) *$134,000*
UT-Austin, Marine Science Institute. Three years of stipend and tuition awarded for the proposal titled "Terrestrial organic matter in large Arctic rivers from satellite remote sensing."

University of Texas Graduate School Recruitment Fellowship (2010-2011) *$22,000*
UT-Austin, Marine Science. Tuition and stipend awarded for the first year of graduate school.

The Polaris Project: Rising Stars in the Arctic *$1,500*
Stipend and travel expenses for undergraduates to conduct research on carbon cycling in Northeast Siberia, funded through an NSF program.

Condakes Fellowship (2009) *$2,000*
Clark University, School of Geography. Award to support undergraduate summer research on carbon cycling in Arctic aquatic environments.

Invited Seminars:

2019 Colored dissolved organic matter in lakes – methods and remote sensing, EPA Lakes Regional Monitoring Network Webinar.
2018 Water chemistry through remote sensing: the past, present, and future of using satellites to map river and lake organic matter, Southwest Research Institute, San Antonio, TX, USA.
2018 From Land to Sea: Our changing understanding of terrestrial organic matter in inland waters, Kansas Biological Survey, University of Kansas, Lawrence, KS, USA.
2018 Optics, organic matter, and the carbon cycle, Chemistry Seminar, University of Minnesota – Duluth, Duluth, MN, USA.
2017 Riverine dissolved organic matter across the pan-Arctic from remote sensing, Water Resources Seminar, University of Minnesota – Twin Cities, St. Paul, MN, USA.
2010 Field Notes from the Arctic: The Polaris Project, with Blaize Denfeld, Graduate School of Geography Seminar, Clark University, Worcester, MA, USA.

Conference Presentations (first author only):

2019 Dissolved organic matter dynamics across a gradient of ice-wedge degradation and stabilization, northern Alaska. American Geophysical Union Fall Meeting, San Francisco, CA, USA (poster, *upcoming*).
2019 How Do Aquatic Ecosystems Respond to the Paired Stressors of Cultural and Climatic Eutrophication in the Arctic? Arctic Future 2050, Washington, D.C., USA (poster).
2018 Remote sensing of dissolved organic matter pools in lakes at regional scales. American Geophysical Union Fall Meeting, Washington, D.C., USA (oral).
2018 Landscape controls on colored dissolved organic matter distribution in 10,000 Minnesota lakes. Minnesota Water Resources Conference, St. Paul, MN, USA (oral)

2017 Lake color across seasons, years, and decades: Cross-scale temporal variability in Minnesota lake CDOM from field and remotely sensed data. Minnesota Water Resources Conference, St. Paul, MN, USA (oral).

2017 Remote sensing to map CDOM across time and space in the Upper Midwest. Gordon Research Conference in Catchment Science: Interactions of Hydrology, Biology, and Chemistry, Lewiston, ME, USA (poster).

2016 Multi-decadal shifts in riverine dissolved organic matter from across the pan-Arctic, derived from satellite remote sensing. American Geophysical Union Fall Meeting, San Francisco, CA, USA (oral).

2015 Developing a thirty year record of dissolved organic matter concentrations in Siberia's Yenisey and Ob' rivers using Landsat imagery. Workshop on Organic Matter Spectroscopy: Dissolved Organic Matter Characterization in Polar Regions using Spectroscopic Techniques, Sopot, Poland (oral).

2014 Dissolved organic matter in large arctic rivers from satellite remote sensing. Joint Aquatic Sciences Meeting, Portland, OR, USA (oral).

2013 River export along a coastal climate gradient influenced by anthropogenic river modifications. Texas Bays and Estuaries Meeting, Port Aransas, TX, USA (oral).

2013 Nitrogen and organic carbon export under varying precipitation regimes along the Texas coast: The importance of dams, droughts and storms. Association for the Science of Limnology and Oceanography Aquatic Sciences Meeting, New Orleans, LA, USA (oral).

2012 Quantifying and correcting the impacts of freezing samples on dissolved organic matter absorbance. American Geophysical Union Fall Meeting, San Francisco, CA, USA (poster).

2011 Variations in CDOM concentration and quality during the spring freshet on the Mackenzie River. American Geophysical Union Fall Meeting, San Francisco, CA, USA (poster).

2010 Late summer variability of dissolved organic matter in the Kolyma River observed using satellite imagery. American Geophysical Fall Meeting, San Francisco, CA, USA (poster).

2010 Modeling dissolved organic matter in northeastern Siberian lakes and rivers using Landsat satellite imagery. American Association of Geographers Annual Meeting, Washington, DC, USA (poster).

2010 Modeling dissolved organic matter in northeastern Siberian lakes and rivers using Landsat TM and ETM+ satellite imagery. State of the Arctic Conference, Miami, FL, USA (poster).

Selected Informal Teaching Experience:

2019 **Guest Instructor**, Terrestrial Ecology, graduate/undergraduate course, 2 session module on terrestrial-aquatic interactions, University of Virginia, Charlottesville, VA.

2014 **Guest Lecture,** Marine Biogeochemisty, graduate course, "65 million years of climate change", Marine Science Institute, University of Texas at Austin, Port Aransas, TX.

2014 **Guest Instructor,** Coastal Watersheds, undergraduate course, linking watersheds to river export, Marine Science Institute, University of Texas at Austin, Port Aransas, TX.

2014 **Guest Lecture,** Marine Environmental Science, undergraduate course, "Global Climate Change." Marine Science Institute, University of Texas at Austin, Port Aransas, TX.

2014 **Guest Lecture,** Coastal Watersheds, graduate course, "Watershed export events and coastal ecosystem responses in South Texas." Marine Science Institute, University of Texas at Austin, Port Aransas, TX

Selected Outreach Activities:

Programs:

2016 – 2018: Coordination of citizen scientists, Trout Lake LTER summer students, WI and MI DNR technicians, and local parks boards to sample CDOM in Upper Midwestern lakes

2013 – 2015: Coordination of citizen science program to sample water quality in Texas rivers

Presentations:

2015 "Riparian Zones and Water Quality" Teachers on the Estuary Workshop from the Mission-Aransas National Estuarine Research Reserve, Bayside, TX.

2013 "Storm events and water quality in Texas rivers: Establishing a citizen science program" Texas Stream Team Event on the Neches River, Beaumont, TX

2013 "Longhorns on Ice: Arctic Research" UT Marine Science Institute's Public Lecture Series, Ask a Scientist Panel, Port Aransas, TX.

2011 "The Arctic Great Rivers Observatory", Inuvik High School and Elementary School, Inuvik, NWT, Canada

2009-2015 "Ticking Carbon Bomb: The Permafrost Climate Feedback" AP Environmental Science, Liberal Arts and Science Academy, Austin, TX (repeated annually)

Undergraduates and Technicians Mentored:

University of Minnesota
Benjamin Allen
Molly Bergum
Noah Germolus
Shannon Pappas
Nicholas Framsted
Maggie Noun
Sally Donovan (technician)
William Chapman (technician)
Katie Kemmitt (technician)

University of Texas
Jessica Smith

Clark University
Samuel Berman

Cornell University
Anahita Verahrami

Professional Activities and Development:

Organization of Meetings

2019 Co-organizer, Bridging Science, Art, and Community in the New Arctic Symposium and Workshop, Charlottesville, VA

2014	Poster Session Chair, Gulf Estuarine Research Society Bienniel Meeting, Port Aransas, TX
2013	Co-Convener, Texas Bays and Estuaries Meeting, Port Aransas, TX

Workshops Attended

2015	International Workshop on Organic Matter Spectroscopy: Dissolved Organic Matter Characterization in Polar Waters Using Spectroscopic Techniques, Sopot, Poland
2014	Planning and Facilitating Collaborative Meetings Workshop, Port Aransas, TX
2013	ASLO Emerging Issues Workshop: Linking Optical and Chemical Properties of Dissolved Organic Matter in Natural Waters, New Orleans, LA
2012	Remote Sensing of Coastal and Inland Waters, Madison, WI

Honors and Awards:

2015	University of Texas Graduate School Professional Development Award
2014	University of Texas Graduate School Prestigious Fellowship Supplement
2013	University of Texas Graduate School Prestigious Fellowship Supplement
2012	University of Texas Graduate School Prestigious Fellowship Supplement
2010	Ellen Churchill Semple Award, School of Geography, Clark University
2010	*Phi beta kappa*, Clark University (inducted)
2010	*Gamma theta upsilon*, Honors Geography Society, Clark University (inducted)
2009	Strabo Prize for Excellence in Geography, School of Geography, Clark University

Professional Affiliations:

American Geophysical Union
Earth Science Women's Network
American Society for Limnology and Oceanography
Association for Polar Early Career Scientists
Global Lake Ecological Observatory Network

Professional Service:

Referee for journals: *Remote Sensing of Environment; PLoS ONE; Biogeosciences; JGR – Biogeosciences; Remote Sensing; Environment, Society, and Technology Letters; Hydrology; Water Resources Research; Limnology and Oceanography*

Proposal reviewer: *National Science Foundation Geomorphology and Land-use Dynamics Program*

Public Engagement Volunteer, Earth Science Women's Network

Mentor, Ecology and Evolution Mentor Match Program