

# Christine B. Georgakakos

Assistant Professor, SUNY College of Environmental Science and Forestry,  
Syracuse, NY, USA  
cbgeorga@esf.edu (404) 405-5667  
<https://cbg466.wixsite.com/christinegeorgakakos>

## EDUCATION

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Ph.D.	Cornell University, Biological and Environmental Engineering, 2016-2021 Committee: Dr. M. Todd Walter, Dr. C. Enid Martínez, Dr. Damian Helbling
Master of Engineering	Cornell University, Biological and Environmental Engineering, 2014-2015 Concentration: Bioenvironmental Engineering, GPA: 3.85
Bachelor of Science	Cornell University, Biological and Environmental Engineering, 2011-2014 Concentration: Bioenvironmental Engineering, GPA: 3.50, Cum Laude

## WORK EXPERIENCE

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2023-present	Assistant Professor, SUNY College of Environmental Science and Forestry, Dept. of Environmental Resources Engineering, Syracuse, NY
2021-2023	USDA Postdoctoral Research Fellow, University of Connecticut, Dept. of Natural Resources and the Environment, Storrs, CT
2016-2021	Graduate Research and Teaching Assistant, Cornell University, Dept. of Biological and Environmental Engineering, Ithaca, NY
2016	Intern, Wetland Studies and Solutions, Gainesville, VA Substitute Teacher, Ithaca City School District, Ithaca, NY
2015	Intern, Finger Lakes Land Trust, Ithaca NY
2013-2019	Outdoor Educator, Cornell Outdoor Education, Ithaca, NY

## TEACHING EXPERIENCE

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### *Instructor*

Cornell U. BIOG 1500: Investigative Biology	Spring 2017
Cornell Outdoor Education ( <i>Various Courses</i> )	Spring 2013-Fall 2019

### *Teaching Assistant*

Cornell U. BEE 4730: Watershed Engineering	Fall 2016, 2017, 2018, 2020
Cornell U. EAS 1600: Environmental Physics	Spring 2018
Cornell U. BEE 3299: Sustainable Development	Spring 2015

### *Guest Lecturer*

Cornell U. BEE 4730: Watershed Engineering	Fall 2019
Cornell U. BEE 3710: Physical Hydrology for Ecosystems	Spring 2017, 2018, 2019
Cornell U. BEE 4270: Water Measurement and Analysis	Fall 2018

### *Other Teaching Experience*

Cornell Soil and Water Lab: Research Mentor	Spring 2017-Spring 2021
Cornell Center for Teaching Innovation: Graduate Teaching and Research Fellow	Fall 2017-Spring 2018
Cornell Cooperative Extension: Master Composter Outreach Educator	Spring 2016 – Fall 2019
Cornell Club Sports: Womxn's Ultimate Frisbee Coach	Fall 2015-Spring 2021
Ithaca City School District: Substitute Teacher	Spring 2016

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## GRANTS, AWARDS & FELLOWSHIPS (Total: \$226,872)

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- 2022
- Northeast SARE Partnership Grant - \$29,057
  - NIAMRRE One Health Interprofessional Education 2022 Cohort - \$1,160
- 2021
- USDA AFRI Education and Workforce Development Postdoctoral Fellowship - \$153,619
  - Dr. Byrne Foote Fund for Undergraduate Research Mentorship - \$3,300
  - Outstanding Graduate Teaching Assistant - \$200
- 2020
- Fully funded travel and stay at SESYNC's Early Career Researchers Workshop
- 2019
- USDA NE SARE Graduate Student Grant - \$11,782.16
  - Engaged Graduate Student Grant - Office of Engaged Initiatives - \$15,906
  - Fully funded travel and stay at Human Dimensions of AMR in Agriculture Workshop
  - Cornell Graduate Student Travel Grant - \$440
- 2018
- Spencer Award - \$6,319.52
  - Sagi Ram Award - \$2,208.48
  - Water Smart Innovations Scholarship Recipient - \$1,000
  - Cornell Graduate Student Travel Grant - \$440
- 2017
- Graduate Research on Teaching Fellowship - \$1,000
  - Cornell Graduate Student Travel Grant - \$440

## PUBLICATIONS (underlining indicates undergraduate mentees)

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### *In Review or Preparation*

- 2023 **Georgakakos, C.B.**, Knighton, J.O. (*in review*) How you teach changes who you reach: understanding the effect of teaching modality on student engagement, content interest, and learning in undergraduate hydrology, EGUsphere [preprint], <https://doi.org/10.5194/egusphere-2022-967>, 2022.

**Georgakakos, C.B.**, Hofmeister, K. L., O'Connor, C., & Walter, M.T. (*in prep*). A multiyear study of soil moisture patterns across agricultural and forested landscapes.

**Georgakakos, C.B.** Hicks, B.J. (*in prep*) Assessing impact of various communication types on perceptions/knowledge of NYS dairy farmers around antibiotics as environmental contaminants

### *Accepted Articles*

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- 2023 **Georgakakos, C.B.**, Helbling, D., Martínez, C.E., Walter, M.T. (2023). Increased mobility of erythromycin through agricultural soils in the presence of manure. *Journal of Water & Health*. doi: 10.2166/wh.2023.051
- 2021 **Georgakakos, C.B.**, Hicks, B., Walter, M.T. (2021). Farmer perspectives of antibiotics in the dairy farm environment. *J. of Environmental Management*, 281, 111880. doi: 10.1016/j.jenvman.2020.111880
- Pietz, O., Augenstein, M., Georgakakos, C. B., Singh, K., McDonald, M., & Walter, M. T. (2021). Macroplastic accumulation in roadside ditches of New York State's Finger Lakes region (USA) across land uses and the COVID-19 pandemic. *Journal of Environmental Management*, 298, 113524. Doi: 10.1016/j.jenvman.2021.113524
- Georgakakos, C.**, Cerra, J., Allred, S., Williams, K., Walter, M.T., LoGuidice, E., Smith, G. (2021). Cross disciplinary learning in environmental engineering and landscape architecture. *Int. J. of Collaborative Engineering*. doi: 10.1504/IJCE.2020.10033950
- 2020 Redding, L.E, Brooks, C., **Georgakakos, C.B.**, Habing, G., Rozenkrantz, L., Dahlstrom, M., & Plummer, P.J. (2020). Addressing individual values to impact prudent antimicrobial prescribing in animal agriculture. *Frontiers in Veterinary Medicine* 297(7). doi: 10.3389/fvets.2020.00297
- 2019 **Georgakakos, C. B.**, Richards, P. L., & Walter, M. T. (2019). Tracing Septic Pollution Sources Using Synthetic DNA Tracers: Proof of Concept. *Air, Soil and Water Research*, 12, 1178622119863794.
- 2018 **Georgakakos, C. B.**, Morris, C. K., & Walter, M. T. (2018). Challenges and opportunities with on-farm research: total and soluble reactive stream phosphorus before and after implementation of a cattle-exclusion, riparian buffer. *Frontiers in Environmental Science*, 6, 71. Doi: 10.3389/fenvs.2018.00071
- 2016 Hofmeister, K. L., **Georgakakos, C. B.**, & Walter, M. T. (2016). A runoff risk model based on topographic wetness indices and probability distributions of rainfall and soil moisture for central New York agricultural fields. *Journal of Soil and Water Conservation*, 71(4), 289-300. Doi: 10.2489/jswc.71.4.289
- 2015 Dahlke, H., Williamson, A., **Georgakakos, C.**, Leung, S., Sharma, A., Lyon, S., Walter, M.T. (2015). Using concurrent DNA tracer injections to infer glacial flow pathways. *Hydrological Processes*, 29(25), 5257-5274. Doi: 10.1002/hyp.10679
- 2014 Archibald, J. A., Buchanan, B. P., Fuka, D. R., **Georgakakos, C. B.**, Lyon, S. W., & Walter, M. T. (2014). A simple, regionally parameterized model for predicting nonpoint source areas in the northeastern US. *Journal of Hydrology: Regional Studies*, 1, 74-91. Doi: 10.1016/j.ejrh.2014.06.003

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## DATA ARTICLES & DATASETS (underlining indicates undergraduate mentees)

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	<i>Data article</i>	<i>Public Dataset</i>
2022	<b>Georgakakos, C. B.</b> , J. Knighton (2022). TAR Survey and Responses: Teaching modality influence on student outcomes, HydroShare,	www.hydroshare.org/resource/1fcb7cc3d2b4a80946601c626868349
2021	<b>Georgakakos, C. B.</b> , Hicks, B., & Walter, M. T. (2021). Dairy farmer perceptions of antibiotic transport and usage in animal agriculture dataset. <i>Data in Brief</i> , 106785. doi: 10.1016/j.dib.2021.106785	doi: 10.17632/cf2wvytr5r.2
	<u>Pietz, O.</u> , <u>Augenstein, M.</u> , <b>Georgakakos, C. B.</b> , Singh, K., <u>McDonald, M.</u> , & Walter, M. T. (2021). Roadside ditch macroplastic and other litter dataset in the Finger Lakes region across land uses and COVID-19 pandemic. <i>Data in Brief</i> , 107425. doi: 10.1016/j.dib.2021.107425	doi: 10.17632/sxfdf37wp4.1

## PRESENTATIONS

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- 2023 **C. Georgakakos** & J. Knighton. Pairing stream antibiotic signatures with stable water isotopes to understand preferential flow paths in agricultural landscapes. NIAMRRE 2023 Annual Meeting. May 2023. Gainesville, FL.
- [Invited] C. Georgakakos.** From Samples to Decisions: Understanding pharmaceutical transport in animal agriculture. University of Massachusetts Civil and Environmental Engineering Seminar. April 2023. Amherst, MA.
- [Invited] C. Georgakakos.** What's in your water? Human Decisions and Transport mechanisms that influence environmental antibiotic residue presence and impact. Cary Institute of Ecosystem Studies Seminar. March 2023. Millbrook, NY.
- 2022 **C. Georgakakos** & J. Knighton. Tracing the movement of pharmaceuticals in small agricultural watershed via tracer-aided monitoring (2H, 180, pharmaceuticals). American Geophysical Union Fall Meeting. December 2022. Chicago, IL.
- C. Georgakakos** & J. Knighton. How you teach changes who you reach: Understanding effect of teaching modality on student engagement, content interest, and learning in undergraduate hydrology. American Geophysical Union Fall Meeting. December 2022. Chicago, IL.

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- C. Georgakakos** & B. Hicks. Assessing article impact on NYS dairy farmers' and industry professionals' perceptions of antibiotics as environmental contaminants. NIAMRRE 2022 Annual Conference. May 2022. Lincoln, NE.
- C. Georgakakos** & J. Knighton. Exploring different teaching modalities in undergraduate hydrology. CIRTl Network Teaching-as-Research Presentations. April 2022. Online.
- 2021 **C. Georgakakos**, D. Helbling, C.E. Martínez, M.T. Walter. More movement with manure: increased mobility of erythromycin in the presence of manure. American Geophysical Union Fall Meeting. December 2021. Online.
- C. Georgakakos**. Conversations and Concentrations: a Multimethod approach to understanding contaminants from animal agriculture. June 2021. Public, Online Dissertation Defense.
- 2020 **C. Georgakakos**. Reflections on interdisciplinary nature of TAR projects: from planning to publication. Online Mini-Symposium on Connecting Research and Teaching. May 2020. Online.
- C. Georgakakos**. Collaborative learning: crossing courses and disciplines. CIRTl Teaching as Research Conference. April 2020. Online.
- 2019 **C. Georgakakos**, C. Gooch, B. Hicks, M.T. Walter. Antibiotics in the dairy environment: farmer perspectives on relevance and transport. American Geophysical Union Fall Meeting. December 2019. San Francisco, CA.
- C. Georgakakos**, J. Cerra, S. Allred, K. Williams, M.T. Walter, E. LoGuidice, G. Smith. Cross disciplinary learning in environmental engineering and landscape architecture. American Geophysical Union Fall Meeting. December 2019. San Francisco, CA.
- C. Georgakakos**, C.A. Gooch, B. Hicks, M.T. Walter. Antibiotics in the Dairy Farm Environment: Farmer Perspectives. American Society of Agricultural and Biological Engineers Annual Meeting. July 2019. Boston, MA.
- 2018 **C. Georgakakos**, C.E. Martínez, D. Helbling, M.T. Walter. Antibiotic adsorption to dairy manure: estimates using EPI suite predictions. American Geophysical Union Annual Meeting. December 2018. Washington D.C.
- C. Georgakakos**, P. Richards, M.T. Walter. Tracing Septic Pollution: DNA based Nano tracers. Water Smart Innovations, October, 2018. Las Vegas, NV.
- C. Georgakakos**, D. Helbling, C.E. Martínez, M.T. Walter. Rethinking BMPs: Sorption of Erythromycin to organic dairy manure. ASABE, July 2018. Detroit, MI.

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**C. Georgakakos**, J. Mulligan. Classroom Assessment Techniques. University-wide Teaching Conference. March 2018. Ithaca, NY.

**C. Georgakakos**, C. Morris, M.T. Walter. Managing best management practices. Sustainable Dairy Systems: Food, Energy, Water. February 2018. Ithaca, NY.

**C. Georgakakos**, J. Madden. Case Studies. GET-SET Workshop, CTI. February 2018. Ithaca, NY.

2017 **C. Georgakakos**, K. Hoffmeister, M.T. Walter. A multiyear study of soil moisture across forested and agricultural landscapes. American Geophysical Union Annual Meeting. December 2017. New Orleans, LA.

**C. Georgakakos**, C. Morris, M.T. Walter. Evaluating effectiveness of best management practices at reducing phosphorus runoff from pastures. Finger Lakes Institute Conference. November 2017. Geneva, NY.

**C. Georgakakos**, J. Cerra, K. Williams, G. Smith, L. Logudice, S. Aldred, M.T. Walter. Cross-discipline collaboration: mimicking industry interactions. CTRL. November 2017. Online webinar.

**C. Georgakakos**, E. Larson. Classroom Evaluation using Rubrics. GET-SET Workshop, CTI. October 2017. Ithaca, NY.

**C. Georgakakos**, P. Richards, M.T. Walter. Proof of Concept: Tracing septic pollution sources using DNA nanobiotechnology. ASABE annual meeting. July 2017. Spokane, WA.

## **PRESS** (underlining indicates undergraduate mentees)

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2022 **C. Georgakakos** & O. Pietz. What's in your ditch? Macroplastic pollution monitoring in local roadside ditches. *Finger Lakes Community Newspapers*. March 16, 2022. [https://www.ithaca.com/opinion/guest\\_opinions/what-s-in-your-ditch-macroplastic-pollution-monitoring-in-local-roadside-ditches/article\\_b16fcec6-b050-11ec-a246-1742dbe3dcbd.html](https://www.ithaca.com/opinion/guest_opinions/what-s-in-your-ditch-macroplastic-pollution-monitoring-in-local-roadside-ditches/article_b16fcec6-b050-11ec-a246-1742dbe3dcbd.html)

2021 **C. Georgakakos** & B. Hicks. How farmers are reducing antibiotic use. *Hoard's Dairyman*. November 2021.

**C. Georgakakos** & B. Hicks. Milk, meat & manure: Farmer perceptions of antibiotic residue reservoirs. *Hoard's Dairyman*. September 25, 2021

**C. Georgakakos** & B. Hicks. Antibiotic usage & alternative treatments: on-farm perspectives from CNY dairy producers. *CCE CNY Dairy and Field Crops Blog*. June 7, 2021.

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<https://blogs.cornell.edu/scnydairyandfieldcrops/2021/06/07/21/antibiotic-usage-alternative-treatments-on-farm-perspectives-from-CNY-dairy-producers/>

B. Hicks & **C. Georgakakos**. What's in a Label. *Cortland Standard: June Dairy Insert*. May 26, 2021.

<https://cortlandstandard.net/images/Special%20Sections/Dairy2021.pdf>

**C. Georgakakos** & B. Hicks. Manure systems & antibiotic residues: on-farm perspectives from CNY dairy producers. *CCE CNY Dairy and Field Crops Blog*. May 17, 2021.

<https://blogs.cornell.edu/scnydairyandfieldcrops/2021/0/5/17/manure-systems-antibiotic-residues-on-farm-perspectives-from-cny-dairy-producers/>

B. Hicks & **C. Georgakakos**. Disease prevention to reduce antibiotic usage on farms: On-farm perspectives from CNY dairy producers. *CCE CNY Dairy and Field Crops Blog*. April 26, 2021.

<https://blogs.cornell.edu/scnydairyandfieldcrops/2021/04/26/disease-prevention-to-reduce-antibiotic-usage-on-farm-perspectives-from-cny-dairy-producers/>

**C. Georgakakos** & B. Hicks. Antibiotic usage & pathways: on-farm perspectives from CNY dairy producers. *CCE CNY Dairy and Field Crops Blog*. Feb 22, 2021.

<https://blogs.cornell.edu/scnydairyandfieldcrops/2021/02/22/antibiotic-usage-pathways-on-farm-perspectives-from-cny-dairy-producers/>

2019 **C. Georgakakos**. Local Research Suggests Stream Buffers Increase Water Quality. *The Homer News*. March 14, 2019.

**C. Georgakakos** & K Czymeck. 2019. Challenges and Benefits of Riparian Buffers on Water Quality. *What's Cropping Up?* Vol 29(3).

## SERVICE & OUTREACH

- Natural Resource Conservation Academy: Conservation Ambassador Program. July 2022. Water day instructor during week-long residential program.
- 4H Career Explorations. June 2018. Three-day youth program leader. Introduction to Environmental Engineering.
- Spellman Clean Tech Competition Judge. April-May 2017, 2018, 2019, 2022.
- Tompkins County Cooperative Extension Mater Composter Education program training (2016) and education events (2016-2020).
- Peer reviewer for *The Rangeland Journal* (2020), *ACS ES&T Water* (2021), *Data in Brief* (2021, 2022, 2023), *Environmental Pollution* (2021), *Phyton-International Journal of Experimental Botany* (2022), *Frontiers in Environmental Science* (2022), *Environmental Science and Pollution Research* (2023)  
(<https://publons.com/researcher/3624510/christine-georgakakos/>)
- BEE Graduate Student Association leadership team (2018-2020)

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## **HOBBIES**

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Gardening, biking, hiking, running, ultimate Frisbee

Summer 2015: Hiked the Appalachian Trail from Georgia to New Jersey,

Summer 2016: Finished Appalachian Trail from New Jersey to Maine.