Danielle Hare

Postdoctoral Fellow

Cary Institute of Ecosystem Studies

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EDUCATION

2022 Doctor of Philosophy in Natural Resources and the Environment

University of Connecticut

Dissertation Title: Climate change effects on the temperature regimes and

carbon processing of stream ecosystems

Advisor: Dr. Ashley M. Helton

Additional Coursework: Education Psychology

2015 Master of Science in Geosciences

University of Massachusetts, Amherst

Thesis Title: Hydrogeological control on spatial patterns of groundwater

seepage in peatlands

Advisor: Dr. David F. Boutt

2011 Bachelor of Science in Geology

Syracuse University

Undergraduate Research: The effect of beaver dams on geochemistry of the hyporheic zone at

varied depth and location over a range of discharges during flood recession

Advisor: Dr. Laura K. Lautz

GRANTS

2021 CUAHSI Hydroinformatics Innovation Fellowship Annual Water Temperature Signal

Analysis for Evaluating Groundwater Contributions to Streams Across Scales: Web

Application. Web Product: https://cuahsi.shinyapps.io/pasta/

SELECT PUBLICATIONS

- 1. **Hare, DK,** AM Helton, CS Cummins, PM Bumpers, NJ Tomczyk, PA Rogers, SJ Wenger, ER Hotchkiss, AD Rosemond, JP Benstead (2024) Leaf litter breakdown phenology in headwater stream networks is modulated by groundwater thermal regimes and litter type. Limnology and Oceanography Letters. https://doi: 10.1002/lol2.10423
- 2. **Hare, DK,** AM Helton, ZC Johnson, JW Lane, and MA Briggs (2021) Continental-scale analysis of shallow and deep groundwater contributions to streams. Nature Communications 12, 1450. https://doi.org/10.1038/s41467-021-21651-0
- 3. **Hare, DK**, AM Helton, ZC Johnson, JW Lane, and MA Briggs (2021) Continental-scale analysis of shallow and deep groundwater contributions to streams. Nature Communications 12, 1450. https://doi.org/10.1038/s41467-021-21651-0
- 4. Harvey, MC, **DK Hare**, A Hackman, G Davenport, AB Haynes, A Helton, JW Lane, MA Briggs (2019). Evaluation of Stream and Wetland Restoration Using UAS-Based Thermal Infrared Mapping. Water, 11(1568). https://doi.org/10.3390/w11081568
- 5. Briggs, MA, **DK Hare** (2018). Explicit consideration of preferential groundwater discharges as surface water ecosystem control points. Hydrological Processes, 32(15), 2435–2440. https://doi.org/10.1002/hyp.13178
- 6. **Hare, DK,** DF Boutt, WP Clement, CE Hatch, G Davenport, A Hackman (2017) Hydrogeological controls on spatial patterns of groundwater discharge in peatlands, Hydrology and Earth System Science. https://doi:10.5194/hess-2017-282.
- 7. **Hare, DK,** MA Briggs, DO Rosenberry, DF Boutt, JW Lane (2015), A comparison of thermal infrared to fiber-optic distributed temperature sensing for evaluation of groundwater discharge to surface water, Journal of Hydrology, https://doi.org/10.1016/j.jhydrol.2015.09.059.
- 8. Briggs, MA, LK Lautz, **DK Hare** and RA Gonzalez (2013) Relating hyporheic fluxes, residence times, and redox-sensitive biogeochemical processes upstream of beaver dams, Freshwater Science 32 (2), https://doi.org/10.1899/12-110.1.

RESEARCH AND WORK EXPERIENCE

2023 - **Postdoctoral Fellow**

Cary Institute of Ecosystem Studies

2021 - 2023 Graduate Research Assistant

Project: Can Watershed Land Use Legacies Inform Nitrogen Management? University of Connecticut, Storrs, CT

2018 – 2022 Graduate Research Assistant

Project: Carbon Response to Experimental Warming University of Connecticut, Storrs, CT

2014 – 2019 Environmental Scientist/Hydrogeologist

Remediation Division AECOM Technical Services, Rocky Hill CT

2012 – 2014 Graduate Research Assistant

Project: Tidmarsh Farms Wetland Restoration & Tobago Freshwater Resource Evaluation University of Massachusetts, Amherst, MA

HONORS AND AWARDS

2022	Graduate Student Research and Creativity Award College of Agriculture, Health, and Natural Resources University of Connecticut
2021	Outstanding Graduate Student Award Department of Natural Resources and the Environment University of Connecticut
2021	Graduate School Conference Participation Award University of Connecticut
2020	Student Travel Grant American Geophysical Union
2014	Outstanding Teaching Assistant Department of Geosciences University of Massachusetts, Amherst
2011	Norma Slepecky Undergraduate Research Women in Science and Engineering Syracuse University
2011	Fay M. Merriam Award- Professional Promise Department of Earth Sciences

MEDIA

The Conversation US. <u>Your favorite fishing stream may be at high risk from climate change – here's how to tell.</u> March 4, 2021.

UConn Today Groundwater Information is No Longer Out of Depth March 4th, 2021

TEACHING EXPERIENCE

Instructor of Record

2019 Stream Ecology (NRE 3205)

Syracuse University

Summer Session II University of Connecticut

Teaching Assistantships

Natural Resources Measurements (NRE 2010)

University of Connecticut

2012 – 2014 Groundwater Geology Teaching Assistant (GEOG 227)

Mount Holyoke University

2012 – 2014	Hydrogeology Teaching Assistant (GEO 587) University of Massachusetts, Amherst, MA
2014	Global Environment Change Teaching Assistant (GEO 110) University of Massachusetts, Amherst, MA
2014	Global Environment Change Teaching Assistant (GEO 110) University of Massachusetts, Amherst, MA
2012 – 2014	The Earth Lab Coordinator and Lab Instructor (GEO 101) University of Massachusetts, Amherst, MA

MENTORING EXPERIENCE

2022 - 2024	Advanced Research Mentorship (3 students)
	Glastonbury High School

2023 Outstanding Mentor Award

Environmental Informatics Capstone Course. 2024

Virginia Tech (Lead Collaborator)
Final app: https://vt-eds.shinyapps.io/S24-EDS-StreamTemp/

WORKSHOPS & EXPERIENCE

2024	LTER Entering Mentoring Workshop
2022	River Field Studies Leadership (2024) 2022 River Field Instructor Professional Development Cohort River Field Studies Network
2019	Fundamentals of Ecosystem Ecology Cary Institute of Ecosystem Studies
2015 – 2018	Vice President Engineers Without Borders: Hartford Professional Chapter
2013 –	USGS Volunteer for Science Branch of Geophysics, Department of Groundwater United States Geological Survey
2016	Managing PCB Impacted Building Materials Connecticut Chapter Program: Environmental Business Council
2015	Scientific Sensing using Unmanned Aircraft Systems AirCTEMPs short-course: Center for Transformative Environmental Monitoring Programs
2013	Gordon Research Conference—Andover, NH Catchment Science: Interactions of Hydrology, Biology & Geochemistry

PEER REVIEW SERVICE

Hydrologic Processes
Journal of Hydrology
Journal of Geophysical Research
Nature- Water
Water Resources Research

PROFESSIONAL MEMBERSHIPS

2024 -	The Ecological Society of America
2022 -	Association for the Sciences of Limnology and Oceanography
2021 –	River Management Society
2014 –	Society of Freshwater Science
2010 –	Geologic Society of America
2010 –	American Geophysical Union

TECHNICAL SKILLS

Programming/Modeling

Python, R, RShiny, MATLAB, ArcGIS, QGIS, MODFLOW, GMS, AQTESOLV, Comsol Multiphysics Modeling, Sigmaplot, Microsoft Office Suite, Adobe Creative Suite

Field Skills

Well slug and pump tests, surveying, GPS, stream gauging, water quality field instrumentation, low-flow sampling, pore water sampling, electrical resistivity, ground penetrating radar, fiber-optic distributed temperature sensing, infrared surveys (handheld and unmanned aircraft systems experience), thermal profiles, sediment coring and description

Laboratory Skills

Water standard preparations, water isotopes Picarro L2130-i Analyzer, sediment analysis