Mike Mahoney

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Education

State University of New York College of Environmental Science and Forestry (SUNY-ESF) *Syracuse, New York*
Doctor of Philosophy in Environmental Science (Area of Study: Coupled Natural and Human Systems) *August 2020 - Present*

State University of New York College of Environmental Science and Forestry (SUNY-ESF) *Syracuse, New York*
Bachelor of Science with Honors magna cum laude in Forest Ecosystem Science (GPA: 3.723) *December 2018*
- Thesis: Beaver Foraging Preferences and Impacts on Forest Structure in New York's Adirondack Mountains

Publications

In Review

2021 **Mahoney, M. J.,** Johnson, J. K., Bevilacqua, E., and Beier, C. M. In Review. Ground noise filtering produces inferior models of forest aboveground biomass In review at Remote Sensing of Environment

2021 **Mahoney, M. J.,** Beier, C. M., and Ackerman, A. C. In Review. Interactive 3D visualizations of geospatial data using the terrainr R package. In review at International Journal of Digital Earth

Peer-Reviewed Publications

2020 **Mahoney, M. J.,** and Stella, J. C. 2020. Stem size selectivity is stronger than species preferences for beaver, a central place forager. Forest Ecology and Management 475 118331. `https://doi.org/10.1016/j.foreco.2020.118331`

Awards and Honors

2018 Robin Hood Oak Award for Academic Excellence
2018 Robert M. Hicks Award for Academic Achievement
2018 ESF Career Fellowship
2017 Outstanding Student Award for Accomplishments in Field Ecology and Dendrology

Invited Talks

2021 **Accessing the USGS National Map and making 3D maps with terrainr.** Nell, C., Mahoney, M. J., and Platt, L. USGS Center for Data Integration, Lakewood, CO.

2021 **terrainr: Landscape Visualizations Using Data from the National Map.** Mahoney, M. J. USGS National Geospatial Technical Operations Center, Denver, CO.

Conference Activity

Contributed Talks

2021 **Interactive 3D visualizations of environmental data using the terrainr R package.** Mahoney, M. J., and Beier, C. M., and Ackerman, A. C. Paper presented at Visual Resources Stewardship Conference, Syracuse, NY.

2018 **Beaver Foraging Preferences and Impacts on Forest Structure in the Adirondack Mountains of New York.** Mahoney, M. J., and Stella, J. C. Forest Ecosystem Monitoring Collective Conference, Burlington, VT.

2018 **Beaver Foraging Preferences and Impacts on Forest Structure in the Adirondack Mountains of New York.** Mahoney, M. J., and Stella, J. C. Rochester Academy of Sciences Fall Scientific Paper Session, Geneseo, NY.

2019 — **Nutritional Impacts on Invasive Beech Scale Quantification in Beech Bark Disease Aftermath Forests.** Dillon, G., Mahoney, M. J., Chase, S., and Johnston, M. New York Society of American Foresters Annual Meeting, Syracuse, NY.

2018 — **Impacts of Beaver on Forest Structure and Composition.** Mahoney, M. J., Zevin, R., and Stella, J.C. Spotlight on Student Research, Syracuse, NY.

2018 — **Impacts of Fertilization on Causal Organisms of Beech Bark Disease.** Mahoney, M. J., Leimanis, V., Desrochers, M. L., Giambona, B., Johnston, M. T., Yanai, R. D., and Dillon, G. A. Spotlight on Student Research, Syracuse, NY.

2017 — **An Investigation of Nutritional Effects on Beech Bark Disease Causal Organisms.** Lasser, G. A., Johnston, M., Mahoney, M., Leimanis, V., and Stoodley, J. Forest Ecosystem Monitoring Collective Conference, Burlington, VT.

2017 — **An Investigation of Nutritional Effects on Beech Bark Disease Causal Organisms.** Lasser, G. A., Johnston, M., Mahoney, M., Leimanis, V., and Stoodley, J. Poster session presented at the Rochester Academy of Sciences Fall Scientific Paper Session, Rochester, NY.

Teaching Experience

GRADUATE COURSES

Machine Learning for Prediction: Concepts and Applications in R. Instructor of Record. Fall 2021

Research Experience

2020-Present — **Climate And Applied Forest Research Institute, SUNY-ESF**
Research Assistant

Community Involvement and Outreach

2019-2020 — **Code for Boston - Clean Slate Project.** Data Scientist and Project Manager (Volunteer).
Project working with Greater Boston Legal Society to advance criminal justice reform efforts.

Software Development

2021 — **terrainr**: Lead developer
Retrieve Data from the USGS National Map and Transform it for 3D Landscape Visualizations.

2020 — **heddlr**: Lead developer
Tools to enable functional programming workflows for dynamic R Markdown document generation.

2020 — **spacey**: Lead developer
USGS and ESRI data access for beautiful landscape visualization.

Affiliations

2021 - Present — **The Carpentries**. Instructor in good standing