

Madison M. Laughlin

School of Environmental and Forest Sciences
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EDUCATION

- 2023 – present **PhD**, Environmental and Forest Sciences, University of Washington
- 2020 – 2022 **M.S.**, Environmental and Forest Sciences, University of Washington
Thesis: Patterns and drivers of conifer regeneration following stand-replacing wildfire across western Cascadia
- 2014 – 2018 **B.A.**, Natural Resources (forestry emphasis) and Geology, Northland College – *summa cum laude*

ACADEMIC AND PROFESSIONAL EXPERIENCE

- 2019 – 2020 **Research Scientist**, University of Washington and Department of Natural Resources, Seattle, WA
- 2019 **Research Assistant**, the Harvey Lab, University of Washington, Seattle, WA
- 2018 **Scientific Technician II**, the Washington Department of Natural Resources, Olympia, WA
- 2016 – 2018 **Research Assistant**, the Forestry and Wildlife Research Lab at Northland College, Ashland, WI
- 2017 **Research Assistant**, the Genetics Lab at Northland College, Ashland, WI

VOLUNTEER EXPERIENCE

- 2018 – 2019 **Bellingham Food Bank**, Bellingham, WA
- 2017 – 2018 **Camera Traps in the Apostle Islands National Lakeshore**, Northland College and the National Park Service, Ashland, Wisconsin
- 2017 **American Kestrel Project**, Northland College, Ashland, WI
- 2014 – 2016 **Environmental Council**, Northland College, Ashland, WI
- 2014 – 2015 **Compost Crew**, Northland College, Ashland, WI
- 2011 – 2014 **Special Olympics Project Unify**, Edmonds, WA

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CERTIFICATIONS

- CPR (2022)
- Wilderness first aid (2021)
- Small Mammal Handling Training through University of Wisconsin, Madison (2017)
- Chainsaw Safety and Bucking Certification (2017)
- Wisconsin DNR Boat Certification (2017)
- Wildland Firefighting Certification, I-100, S-130, S-190, and L-180 (2016)
- Arboreal Climbing Safety Training (2016)

PUBLICATIONS

Radcliffe, D.C., Bakker, J.D., Churchill, D.J., Alvarado, E.C., Peterson, D.W., **Laughlin, M.M.**, and Harvey, B.J. *In press*. How are long-term stand structure, fuel profiles, and potential fire behavior affected by fuel treatment type and intensity in Interior Pacific Northwest forests? *For: Forest Ecology and Management*.

Laughlin, M.M., Rangel-Parra, L.K., Morris, J.E., Donato, D.C., Halofsky, J.A., and Harvey, B.J. 2023. Patterns and drivers of early conifer regeneration following stand-replacing wildfire in Pacific Northwest (USA) temperate maritime forests. *Forest Ecology and Management* 549. <https://doi.org/10.1016/j.foreco.2023.121491>

Olson, E.R., **Laughlin, M.M.**, Martin, J.G. 2023. Reaching new heights: arboreal camera trapping provides new insights into the ecology of gray treefrogs *Hyla versicolor*. *Journal of Herpetology* 57 (3): 281-289.

Laughlin, M.M., Bakker, J.D., Churchill, D.J., Gregory, M.J., Demeo, T., Alvarado, E.C., and Harvey, B.J. 2023. Trends in forest structure restoration need over three decades with increasing wildfire activity in the interior Northwest. *Forest Ecology and Management* 527. <https://doi.org/10.1016/j.foreco.2022.120607>

Laughlin, M.M., Martin, J.G., and Olson, E.R. 2020. Arboreal camera trapping reveals seasonal behaviors of *Peromyscus* spp in *Pinus Strobus* canopies. *The American Midland Naturalist* 183 (2): 210-222.

Laughlin, M.M., Martin, J.G., Liesch, P.J., and Olson, E.R. 2018. Dragonfly (Odonata: Corduliidae, Macromiidae, Gomphidae, Aeshnidae) and Damselfly (Odonata: Calopterygidae) exuviae observed at record heights in *Pinus strobus* and *Picea alba* canopies. *The Great Lakes Entomologist* 51 (1): 26-29.

Laughlin, M.M., Olson, E.R., and Martin, J.G. 2017. Arboreal camera trapping expands *Hyla versicolor* complex (Hylidae) canopy use to new heights. *Ecology* 98.8. DOI: 10.1002/ecy.1843

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In prep and in review / revisions

Stanke, H., Bakker, J., Demeo, T., **Laughlin, M.M.**, Churchill, D.C., and Harvey, B.J. *In prep.*
Evaluating forest structural restoration needs in the Pacific Northwest. *For: Forest Ecology and Management.*

PRESENTATIONS

- Laughlin, M.M.**, Rangel-Parra, L.K., Donato, D.C., Halofsky, J.A., and Harvey, B.J. 2023. Built-in resilience? Testing mechanisms of conifer seed availability within infrequent, stand-replacing fire regimes of the northwestern Cascades, USA. Oral presentation at the Association for Fire Ecology Annual Congress in organized special session “The role of seeds in post-fire recovery”, Monterey, California, USA.
- Laughlin, M.M.**, Rangel-Parra, L.K., Morris, J.E., Donato, D.C., Halofsky, J.A., and Harvey, B.J. 2023. Patterns and drivers of conifer regeneration following stand-replacing wildfire in northwestern Cascadia. Oral presentation at the Ecological Society of America Annual Meeting in organized special session “Shared challenges: novel ecosystem responses to changes in historically climate-limited fire regimes”, Portland, Oregon USA.
- Laughlin, M.M.**, Rangel-Parra, L.K., Morris, J.E., Donato, D.C., Halofsky, J.A., and Harvey, B.J. 2023. Patterns and drivers of conifer regeneration following stand-replacing wildfire in western Cascadia. Oral presentation at the Washington Society of American Foresters, La Conner, Washington, USA.
- Laughlin, M.M.**, Rangel-Parra, L.K., Morris, J.E., Donato, D.C., Halofsky, J.A., and Harvey, B.J. 2023. Patterns and drivers of conifer regeneration following stand-replacing wildfire in western Cascadia. Oral presentation at the USFS Oregon Post-Fire Research and Monitoring Symposium, Corvallis, Oregon, USA.
- Laughlin, M.M.** 2021. Disturbance and climate drivers of conifer regeneration following stand-replacing wildfire in western Cascadia, USA. Poster presented at the Association for Fire Ecology Annual Congress, virtual conference.
- Laughlin, M.M.** 2018. Lichen biogeochemical and spatial dynamics in canopies of Eastern white pine (*Pinus strobus*) in northern Wisconsin, USA. Poster presented at the Northland College Honors Day Poster Symposium, Ashland, WI.
- Laughlin, M.M.** 2018. Physical and chemical effects of invasive earthworms on soil profiles in the Chequamegon-Nicolet National Forest in northern Wisconsin, USA. Poster presented at the Northland College Honors Day Poster Symposium, Ashland, WI.
- Laughlin, M.M.**, Martin, J.G., and Olson, E.R. 2018. Arboreal camera trapping reveals arboreal behavior of *Hyla versicolor*, *Peromyscus leucopus*, and *Peromyscus maniculatus* in northern Wisconsin, USA. Poster session presented at the 78th Midwest Fish and Wildlife Conference, Milwaukee, Wisconsin.

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Laughlin, M.M., Martin, J.G., and Olson, E.R. 2017. Lichen biogeochemical and spatial dynamics in canopies of Eastern white pine (*Pinus strobus*). Poster session presented at the fall meeting of the American Geophysical Union, New Orleans, Louisiana.

Laughlin, M.M., Martin, J.G., and Olson, E.R. 2017. Arboreal camera trap images provide insight into extent of canopy-use of *Hyla versicolor* (eastern gray tree frog) and *Peromyscus* spp. (deer mouse). Oral presentation at the Wildlife Society Conference, Milwaukee, Wisconsin.

FELLOWSHIPS & AWARDS

- **NW Climate Adaptation Science Center Graduate Fellowship, 2023-2024**
- **Honorable Mention, National Science Foundation Graduate Research Fellowship Program, 2022**
- **Top Scholar Award and School of Environmental and Forest Sciences Fellowship, University of Washington, 2020-2021**
- **Honorable Mention, National Science Foundation Graduate Research Fellowship Program, 2020**
- **James E. Meeker Award for Excellence in Natural Resources Research, Northland College, May 2018**
- **Northland College Natural Resources Merit Award, Northland College, May 2018**
- **Bruce Goetz Tools of the Trade Award in Geology, Northland College, May 2018**
- **Honorable Mention, Honors Day Poster Symposium, Northland College, May 2018**
- **Bruce Goetz Geosciences Award, Northland College, May 2017**
- **Trustee Scholarship, Northland College, 2014-2018**