

CURRICULUM VITAE

Eric S. Levenson

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EDUCATION

- Expected 2025 **PhD in Geography, University of Oregon**
Advisor: Prof Sarah W. Cooley. Graduate affiliate of the Cryo-Hydro Observation Leaders Lab at Duke University Nicholas School of the Environment, Earth and Climate Sciences
- 2021 **MS in Geography, University of Oregon**
Advisor: Prof Mark Fonstad. Thesis: *Sources of coarse sediment grain-size variability along the upper Sandy River revealed using UAV remote sensing.*
- 2015 **BA in Environmental Science and Anthropology, Bowdoin College**
Sarah and James Bowdoin Scholar. Education Minor.

HONORS AND AWARDS

- 2023-2026 **NASA Future Investigator in Earth and Space Science and Technology (FINESST)** – Full funding to pursue a PhD focused on improving our capacity to observe changes to surface water from spaceborne instruments.
- 2025 **AGU Outstanding Student Paper Award** – Biogeosciences Division
- 2025 **AGU Outstanding Student Paper Award** – Hydrology Division
- 2024 **GSA Graduate Student Research Grant** – Recognition and funding in support of a field campaign to Alaska validating satellite observations.
- 2023 **Rippey Award, University of Oregon Department of Geography** – Support for computing costs associated with PhD work.
- 2021 **Rippey Award, University of Oregon Department of Geography** – Support for fieldwork on the Sandy River.
- 2015 **Riley Research Award, Bowdoin College of Anthropology** – Funded research on Maine’s boat building industry and its adaptations to environmental change.
- 2015 **Sarah and James Bowdoin Scholar, Bowdoin College**

Total Funding Awarded: \$156,394.00

PROFESSIONAL EXPERIENCE

2023-present NASA Graduate Student Fellow, University of Oregon, *Eugene, OR*
2021-2023 Graduate Research Assistant, University of Oregon, *Eugene, OR*
2023-2024 Instructor, Rios to Rivers Paddle Tribal Waters Program, *Klamath River Basin*
2019-2021 Graduate Teaching Assistant, University of Oregon, *Eugene, OR*
2016-2019 Math and Science Teacher, The Sage School, *Hailey, ID*
2019 Whitewater Kayaking Coach, Jackson Hole Youth Kayak Club
2015-2016 Mathematics Teaching Fellow, Maine Coast Semester, *Wiscasset, ME*
2013-2016 Trip Leader, Overland Summers, *Alaska, Switzerland, Colorado, New England*
2015 Admissions Interviewer, Bowdoin College, *Brunswick, ME*

PUBLICATIONS

Submitted and In prep:

Levenson, E.S., S.W. Cooley. (in prep). Timing and magnitude of pan-Arctic lake seasonality from 2016-2023.

Levenson, E.S. (in prep). Improving satellite-based estimates of surface water storage through integrated SWOT and Sentinel-2 water mapping.

A. Pletcher, S.W. Cooley, **E.S. Levenson** (submitted). Observing fine-scale lake ice breakup dynamics in the Lower Kuskokwim River Basin, Alaska. *Hydrological Processes*.

Published:

Levenson, E.S., S.W. Cooley, A. Mullen, E.E. Webb, J.D. Watts, (2025). Glacial history modifies permafrost controls on the distribution of lakes and ponds. *Geophysical Research Letters* 52(4). <https://doi.org/10.1029/2024GL112771>

Levenson, E.S., Cooley, S. W., & Mullen, A. (2025). *ABOVE: Alaska Lake and Pond Occurrence*. ORNL DAAC, Oak Ridge, Tennessee, USA.
<https://doi.org/10.3334/ORNLDAAC/2399>

Mullen, A., J. D. Watts, B. M. Rogers M. L. Carroll, C.D. Elder, J. Noomah, Z. Williams, A. Bredder, E. Rickenbaugh, J. A. Caraballo-Vega, **E.S Levenson**, S.W. Cooley, S. Potter, Y. Yang, G. Fiske, C.E. Miller, S.M. Natali, T.A Douglas, E.D Kyzivat. (2023). Using High-Resolution Satellite Imagery and Deep Learning to Track Dynamic Seasonality in Small Water Bodies. *Geophysical Research Letter*, 50(7).

Levenson, E.S., and Fonstad M.A. 2022, Characterizing coarse sediment grain size variability along the upper Sandy River, Oregon, via UAV remote sensing, *Geomorphology*,
<https://doi.org/10.1016/j.geomorph.2022.108447>

Chafe, O. E., Broz, A. P., **Levenson, E. S.**, Farinacci, M. D., Anderson, R. O., & Silva, L. C. (2024). The spatiotemporal domains of natural climate solutions research and strategies for implementation in the Pacific Northwest, USA. *Frontiers in Climate*, 6, 1273632.

SELECTED PRESENTATIONS

Levenson, E.S., S.W. Cooley, A. Mullen, E. Webb, J. Watts. Glacial History Modifies Permafrost Controls on the Distribution of Arctic-Boreal Lakes and Ponds. *AGU Fall meeting*. Oral Presentation. 2024.

Levenson, E.S., S.W. Cooley. The Timing and Magnitude of Pan-Arctic Seasonal Lake Area fluctuations from 2016-2021. *AGU Fall meeting*. Poster Presentation. 2024.

Webb, E.E., A.K. Liljedahl, **E.S. Levenson**, S.W. Cooley, Lake Area Change Across the Northern Permafrost Zone. *AGU Fall meeting*. Oral Presentation. 2024.

A. Mullen, J. Watts, S.W. Cooley, **E.S. Levenson**, M. Carroll, ...B.M. Rogers. Coupling Cubesat Remote Sensing and a Process-based Model for Regional Estimates of Aquatic Greenhouse Gas Emissions. Poster Presentation. 2024.

Levenson, E.S., Cooley, S.W., Mullen, A., Van Dusen, I. Analyzing local to regional scale patterns in surface water variability and their interaction with permafrost using a new high resolution Alaska lake database, *AGU Fall meeting*, Poster Presentation. 2023.

Pletcher, A., S.W. Cooley, **E.S. Levenson**, Remote sensing of ice dynamics in the Yukon-Kuskokwim River Delta, AK. *AGU Fall meeting*, Poster Presentation. 2023.

A. Simpson, L. Karlstrom, S.W. Cooley, **E.S. Levenson**. Ephemeral lakes as a window into the enigmatic high cascades aquifer: Results from modeling, remote sensing, and field observations. *AGU Fall meeting*, Poster Presentation. 2023.

Levenson, E.S., Cooley, S.W., Mullen, A., Lake distribution and dynamics in the Alaskan Arctic from 2016-2021, *AGU Fall meeting*, Poster Presentation. 2022.

Cooley, S.W., **E.S. Levenson**, Leveraging novel satellite technologies to better understand permafrost-surface water feedbacks. Invited Oral Presentation. 2022.

Van Dusen, I., Cooley, S.W., **E.S. Levenson**, Assessing the Accuracy of Planet and Sentinel-2 Derived Water Maps through in situ GNSS Validation. Oral Presentation. 2022.

Levenson, E.S. Remotely sensed grain-size distributions at high resolutions and across large extents reveals that bar-scale position modulates grain-size response to channel width within the upper Sandy River, Oregon. *AGU Fall meeting*. Oral Presentation. 2021.

Levenson, E.S. Hyperscale sediment grain-size mapping and sorting in relation to channel morphology. *American Association of Geographers*. Poster Presentation. 2021.

Levenson, E.S. Methodological approaches to fluvial grain-size remote sensing. *Bretz Club Mini-Conference*. 2021.

INVITED SEMINARS

- 2025 **AGU Biogeosciences Early Career Seminar**, “Glacial History Modifies Permafrost Controls on the Distribution of Lakes and Ponds”
- 2025 **USGS Water Mission Area**, “Mapping Alaska’s Lakes and Ponds and Their Interactions with Permafrost”
- 2025 **Alaska Geospatial Council Hydrography Working Group**, “The Alaska Lake and Pond Occurrence Dataset, and novel SWOT applications for Alaska Hydrology”

SERVICE AND LEADERSHIP

- 2024-present SWOT River Science Working Group
- 2024-present SWOT Lakes and Wetlands Working Group
- 2022-2023 Graduate Representative to the UO Geography Diversity Committee
- 2022-2024 President, UO Chapter of the American Society for Photogrammetry and Remote Sensing
- Swift Water Rescue, Wilderness First Responder, AIARE Level 1 Avalanche Certifications