CURRICULUM VITAE

Eric S. Levenson

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EDUCATION

Expected 2026 **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 Studies and Anthropology, Bowdoin College**
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 **Rippey Dissertation Writing Fellowship**

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: $161,894.00

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. (in prep). SWOT Performance Assessment and Multi-Sensor Enhancements for Water Storage Monitoring.

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

Simpson, A., **E.S. Levenson**, L. Karlstrom, S.W. Cooley. (submitted). Hydrologic Implications of Seasonally Draining Lakes in the Central Oregon Cascades. *Water Resources Research.*

Webb, E.E., S.W. Cooley, **E.S. Levenson**, J. Maze. (submitted). Discrepancies in Arctic-Boreal lake area trends driven by sensitivity to dry conditions. *Hydrology and Earth System Sciences.*

Webb E.E., S.W. Cooley, **E.S. Levenson**. (submitted). Temporal bias in Landsat-derived surface water trends. *Nature.*

Cooley, S.W., E.E. Webb, **E.S. Levenson**, J.C. Ryan. (submitted). Lakes modify the magnitude and timing of the Northern Hemisphere Terrestrial Cyrosphere Radiative Effect. *PNAS.*

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

Pletcher, A., S.W. Cooley, **E.S. Levenson**, (accepted 2025). Observing fine-scale lake ice-out dynamics in the Lower Kuskoswim River Basin, Alaska. *Hydrological Processes.*

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, E.E. Webb, C. Kluetmeier. Improved SWOT surface water storage monitoring through multi-sensor harmonization. *SWOT Science Team Meeting.* October 2025.

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-Kuskoswim 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