

C. ALINA CANSLER

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EDUCATION

Ph.D., Environmental and Forest Resources (2015) – University of Washington, Seattle, WA. Advisor: Donald McKenzie. Dissertation: Multi-scale Analysis of Fire Effects in Alpine Treeline Ecotones.

M.S., Forest Resources (2011) – University of Washington, Seattle, WA. Advisor: Donald McKenzie. Thesis: Drivers of Burn Severity in the Northern Cascade Range, Washington, USA.

B.A. (2002) – Willamette University, Salem, OR. Dual major: Environmental Science; Politics.

PROFESSIONAL CERTIFICATIONS

Fire Ecologist (2014) – Association for Fire Ecology.

REFEREED PUBLICATIONS

- [8] Cansler, C.A., D. McKenzie, C. Halpern. 2016. Area burned in alpine treeline ecotones reflects region-wide trends. In press at International Journal of Wildland Fire.
- [7] Larson, A.J., C.A. Cansler, S.G. Cowdery, S. Hiebert, T.J. Furniss, M.E. Swanson, and J.A. Lutz. 2016. Post-fire morel (*Morchella*) mushroom abundance, spatial structure, and harvest sustainability. *Forest Ecology and Management*. 337:16-25.
- [6] Kolden, C., J.T. Abatzoglou, J.A. Lutz, C.A. Cansler, J. Kane, J. van Wagtenonk, C. Key. 2015. Climate contributors to forest mosaics: ecological persistence following wildfire. *Northwest Science*. 89:219-238. doi: [10.3955/046.089.0305](https://doi.org/10.3955/046.089.0305)
- [5] Kane, V.R., C.A. Cansler, N.A. Povak, J.T. Kane, R.J. McGaughey, J.A. Lutz, D.J. Churchill, M.P. 2015. Mixed severity fire effects within the Rim fire: Relative importance of local climate, fire weather, topography, and forest structure. *Forest Ecology and Management*. 358:62-79. doi: [10.1016/j.foreco.2015.09.001](https://doi.org/10.1016/j.foreco.2015.09.001)
- [4] Kane, V.R., J.A. Lutz, C.A. Cansler, N.A. Povak, D.J. Churchill, D.F. Smith, J.T. Kane, M.P. North. 2015. Water balance and topography predict fire and forest structure patterns. *Forest Ecology and Management*. 338:1-13. doi: [10.1016/j.foreco.2014.10.038](https://doi.org/10.1016/j.foreco.2014.10.038)
- [3] Cansler, C.A., D. McKenzie. 2014. Climate, fire size, and ecological setting influence severity and spatial pattern of wildfires. *Ecological Applications*. 24:1037-1056. doi: [10.1890/13-1077.1](https://doi.org/10.1890/13-1077.1)
- [2] Larson, A.J., R.T. Belote, C.A. Cansler, S.A. Parks, and M.S. Dietz. 2013. Latent resilience in ponderosa pine forest: Effects of resumed frequent fire. *Ecological Applications*. 23:1243–1249. doi: [10.1890/13-0066.1](https://doi.org/10.1890/13-0066.1)
- [1] Cansler, C.A., D. McKenzie. 2012. How robust are burn severity indices when applied in a new region? Evaluation of alternate field-based and remote-sensing methods. *Remote Sensing* 4:456-483. doi: [10.3390/rs4020456](https://doi.org/10.3390/rs4020456)

MANUSCRIPTS IN REVIEW

Lutz, J.A., T.J. Furniss, S.J. Germain, K.M.L. Becker, E.M. Blomdahl, S.A. Jeronimo, C.A.

Cansler, J.A., Freund, M.E. Swanson, and A.J. Larson. Shrub consumption and community change by reintroduced fire in Yosemite National Park, California, USA. In review at Fire Ecology.

OUTREACH AND MANAGEMENT PUBLICATIONS (NON-REFEREED)

Cansler, C.A. 2014. Voices in the Wind: What aspects of topo- and/or micro-scale processes – climatic, hydrologic, ecologic, or social – do you think are especially important to study? Mountain Views: The Newsletter of the Consortium for Integrated Climate Research in Western Mountains CIRMOUNT. 8(2):54-57. URL: www.fs.fed.us/psw/cirmount/publications/mtnviews.shtml

Cansler, C.A., D. McKenzie. 2014. Brevia: Burn severity and severity patterns in the northern Cascade Range, Washington, USA. Mountain Views: The Newsletter of the Consortium for Integrated Climate Research in Western Mountains CIRMOUNT. 8(1):14-17. URL: www.fs.fed.us/psw/cirmount/publications/mtnviews.shtml

OTHER NON-REFEREED PUBLICATIONS

Cansler, C.A., A.J. Larson. 2013. Book Review: Prescribed burning in fire-prone landscapes. Fire Ecology. 9:3 100. doi: [10.4996/fireecology.0903100](https://doi.org/10.4996/fireecology.0903100)

PRESENTATIONS

Invited

Cansler, C.A., D. McKenzie 2016. Effects of Fire in Whitebark Pine Communities of the Alpine-Treeline Ecotone. Whitebark Pine Ecosystem Foundation Annual Science and Management Workshop. 9/16-9/18/2016, Whitefish, MT.

Cansler, C.A. 2015. Multi-scale analysis of fire effects in alpine treeline ecotones. USDA Forest Service, Rocky Mountain Research Station, Missoula Fire Sciences Lab. 11/12/2011, Missoula, MT.

Cansler, C.A., S.J. Prichard, K. Kopper, M.C. Kennedy, D. McKenzie, D.L. Peterson. 2012. Causes of spatial and temporal variation in burn severity at local and regional scales in the Washington Cascade Range. Organized Oral Session: Assessing Fire Effects with Remote Sensing and Geospatial Technologies. Association for Fire Ecology's 5th International Fire Ecology and Management Congress. 12/3-7/2012, Portland, OR.

Larson, A.J., **C.A. Cansler**. 2012. The changing role of fire in whitebark pine population dynamics: Implications for conservation. Organized Oral Session: Conservation Values and Dynamics of Early Post-Disturbance Temperate Forests in North America. Ecological Society of America Annual Meeting. 8/5-10/2012, Portland, OR.

Cansler, C.A. 2011. Drivers of burn severity in the northern Cascade Range, Washington, USA. USDA Forest Service, Rocky Mountain Research Station, Missoula Fire Sciences Lab. 4/12/2011, Missoula, MT.

Contributed

Cansler, C.A., D. McKenzie. 2015. Fire occurrence, severity, and influence on plant structure in alpine treeline ecotones. Perth III: Mountains of Our Future Earth. 10/4-8/2015, Perth, Scotland.

- Cansler, C.A.**, D. McKenzie. 2015. Influence of fire and post-fire succession in alpine treeline ecotones. 2015 IALE World Congress. 7/5-10/2015, Portland, OR.
- Cansler, C.A.**, D. McKenzie. 2014. Are recent increases in area burned in the Pacific Northwest reflected in increased area burned in alpine treeline ecotones? MTNCLIM Conference. 9/15-18/2014, Midway, UT.
- Cansler, C.A.**, J. Andreychuk, D. McKenzie. 2014. Post-fire plant species composition and structure in alpine parkland, northern Cascades Range, USA. Ecological Society of America Annual Meeting. 8/10-15/2014, Sacramento, CA.
- Kane, V.R., **C.A. Cansler**, N.A. Povak, D. Churchill, M.P. North, D.F. Smith, J.A. Lutz . 2014. Biophysical controls on forest structure and fire severity in Yosemite National Park. Ecological Society of America Annual Meeting. 8/10-15/2014, Sacramento, CA.
- Cansler, C.A.**, D. McKenzie. 2014. Tree regeneration after fire in *Abies lasiocarpa-Larix lyallii-Pinus albicaulis* subalpine parkland in the North Cascades, Washington. Northwest Scientific Association Annual Meeting. 3/26-29/2014, Missoula, MT.
- Andreychuk, J., **C.A. Cansler**, D. McKenzie. 2014. The influence of fire on herbaceous community composition of subalpine parkland in the North Cascades. Northwest Scientific Association Annual Meeting. 3/26-29/2014, Missoula, MT.
- Cansler, C.A.**, D. McKenzie. 2012. Using remotely sensed burn severity data from modern reference ecosystems as a guide for land management: describing fire regimes, identifying burn severity levels, and quantifying patchiness. Organized Oral Session: Mixed Severity Fire Regime as a Guiding Concept for Forest Management: Variability in Space and Time, Restoration, and Future Challenges. Ecological Society of America Annual Meeting. 8/5-10/2012, Portland, OR.
- Belote, R.T., **C.A. Cansler**, M. Crist, G.H. Aplet. 2012. Mixed severity fire: Conceptual and empirical overview of ecology and case studies of restoration challenges. Organized Oral Session: Mixed Severity Fire Regime as a Guiding Concept for Forest Management: Variability in Space and Time, Restoration, and Future Challenges. Ecological Society of America Annual Meeting. 8/5-10/2012, Portland, OR.
- Cansler, C.A.**, D. McKenzie. 2011. Drivers of burn severity in the northern Cascade Range, Washington, USA. Ecological Society of America Annual Meeting. 8/7-12/2011, Austin, TX.
- Larson A.J., R.T. Belote, L. Brett, **C.A. Cansler**, C.R. Davis. M.S. Dietz. 2011. Fire effects on forest composition, structure and carbon stocks of western larch (*Larix occidentalis*) forests in the Bob Marshall Wilderness: Contemporary benchmarks for forest restoration. Fourth Annual Research Symposium of Montana Chapter of Society for Conservation Biology. 11/17-18/2011, Missoula, MT.
- Cansler, C.A.**, D. McKenzie. 2011. The influence of fire size and climate on burn severity and the within-fire burn severity pattern in the northern Cascade Range, WA, USA. Exploring the Mega-fire Reality 2011: A Forest Ecology and Management Conference. 11/14-17/2011, Tallahassee, FL.
- Cansler C.A.**, D. McKenzie. 2010. Climatic and topographical influences on fire regime attributes in the northern Cascade Range, Washington, USA. American Geophysical Union Annual Meeting. 12/13-17/2010, San Francisco, CA.

PROFESSIONAL EXPERIENCE

Research Ecologist (12/2015-present). University of Washington, Seattle, WA.

Research Assistant (9/2008-12/2015). Fire and Mountain Ecology Lab, University of Washington, Seattle, WA.

Lead Fire Effects Monitor (1/2007-9/2008). National Park Service, North Pacific/Columbia Basin Region, North Cascades National Park, WA.

Assistant Lead/Acting Lead Fire Effects Monitor (4/2005-9/2006). National Park Service, Colorado Plateau Region, Zion National Park, UT.

Assistant Lead Fire Effects Monitor (8/2004-10/2004). National Park Service, Colorado Plateau Region, Zion National Park, UT.

Fire Effects Monitor (5/2003-8/2004). National Park Service, Colorado Plateau Region, Zion National Park, UT.

GIS Assistant (12/2002-4/2003). National Wildlife Federation, Atlanta, GA.

Vegetation Technician (5/2002-9/2002). Olympic National Forest, Quinault, WA.

COMPETITIVE GRANTS

USDI Joint Fire Sciences Program. Title: Landscape evaluations and prescriptions for post-fire landscapes. 2016-2019. PI: A. Larson; Co-PIs: P. Hessburg, N. Povak, D. Churchill, V. Kane, **C.A. Cansler**, J. Lutz; Collaborator: R. Harrod. Award amount: \$383,565.

Student Technology Fee Proposal, University of Washington. 2014. Title: Natural Resources Field Tool Kits. PIs: M. Aghai, **C.A. Cansler**, C. Restaino, M. Morrison. Award amount: \$30,438.

Joint Fire Science Program (JFSP) Graduate Research Innovation Award (GRIN). 2013. Title: Impacts of changing fire regimes in the alpine treeline ecotone. Project ID: 13-3-01-22. PIs: **Cansler, C.A.** (student and lead author), D. McKenzie (PI). Award amount: \$22,317.

AWARDS

USDA Forest Service National Wilderness Award for Excellence in Wilderness Stewardship Research. 2013. Recipients: A.J. Larson, R.T. Belote, **C.A. Cansler**, S.A. Parks, and M.S. Dietz.

On the Spot Award, monetary award for employee excellence in leadership, Zion National Park. 2005.

On the Spot Award, monetary award for employee excellence in leadership, Zion National Park. 2004.

TEACHING AND MENTORING

Instructor (9/25/2013-12/13/2013). Forest Community Ecology (SEFS 501). University of Washington, Seattle, WA.

Teaching Assistant (6/24/2013-7/10/2013). Forest Ecology of the Sierra Nevada and White Mountains (field course; ESRM 490b). University of Washington, Seattle, WA.

Invited instructional lecture (1/31/2011). Climate Change and Fire Regimes in the Northern Cascades. Ecological Issues in National Parks (CFR 521e). University of Washington, Seattle, WA.

Instructor (7/4/2004). Introduction to Wildland Fire Behavior (S-190); "Fire Behavior" section of class.

Students mentored

A. Ward. (5/2014-3/2015). Research project: Charcoal production in mixed-conifer forest under high severity initial fire and repeat burns. College of Forestry and Conservation, University of Montana.

J. Andreychuk (9/2013-6/2014). Research project: Influence of fire on herbaceous functional groups in subalpine parkland in the Northern Cascades. School of Environmental and Forest Sciences, University of Washington.

S. Erickson (9/2012-3/2013). Senior thesis: Seed distribution and germination differences between the whitebark pine (*Pinus albicaulis*) and the subalpine fir (*Abies lasiocarpa*) in the Northern Cascades. School of Environmental and Forest Sciences, University of Washington.

SERVICE

Reviewer

Canadian Journal of Forest Research (2 review); Fire Ecology (3 reviews); International Journal of Remote Sensing (1 review); International Journal of Wildland Fire (2 reviews); Journal of Vegetation Science (1 review); Remote Sensing (2 reviews); Wyoming Agricultural Experiment Station Competitive Grants (1 review).

Session organizer

McKenzie, D., C. Millar, **C.A. Cansler**. 2013. Climate Change and Wildfire: Drivers, Interactions and Consequences. Organized Oral and Poster sessions (GC23G, GC24A, GC21C). American Geophysical Union Annual Meeting. 12/9-13/2013, San Francisco, CA.

Belote, R.T., **C.A. Cansler**, M. Crist, G.H. Aplet. 2012. Organized Oral Session: Mixed Severity Fire Regime as a Guiding Concept for Forest Management: Variability in Space and Time, Restoration, and Future Challenges. Ecological Society of America Annual Meeting. 8/5-10/2012, Portland, OR.

Other service

Volunteer field crew leader, Yosemite Forest Dynamics Plot (6/12-24/2009, 6/26-30/2011, 6/20-30/2012, 5/18-26/2014).

Participant and facilitator, USFS Northern Region Climate Adaption Partnership. Climate change adaption planning workshop. Review of vulnerability assessment and development of adaption options. Missoula, MT. (10/20-21/2014).

Facilitator, North Cascadian Adaption Partnership. Climate change adaption planning workshop. Climate change, wildlife and wildlife habitat. Seattle, WA. (1/30-31/2012).

Student liaison to Ecological Society of America Awards Committee (2011, 2012).

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Invited speaker, inaugural event for University of Washington's College of the Environment (6/1/2009).

Forester (President), Xi Sigma Pi, Alpha chapter, University of Washington (5/2009-5/2010).

President, Environmental Community Outreach Society, Willamette University (1/2000-5/2002).

SKILLS

Software: R, ArcGIS, ENVI, FRAGSTATS.

Field Skills: Field botany in southwest, Sierra Nevada, Pacific Northwest, and northern Rocky Mountains, USA (technical keys: Welsh, Intermountain Flora, Jepson, Hitchcock and Cronquist). Field identification of common western forest pathogens. Off-trail travel map and compass navigation, GPS (Garmin, Trimble), surveying experience with Nikon and Leica total stations.

Technical Certifications: Wilderness First Responder (current through 5/2017). Federal Wildland Fire Certifications (now expired) included: Fire Fighter Type 2, Faller A, Fire Effects Monitor (FEMO), Helicopter Crewmember (HECM).

PROFESSIONAL AFFILIATIONS

American Geophysical Union; Association for Fire Ecology; Ecological Society of America; Montana Native Plant Society; Northwest Scientific Association; Whitebark Pine Ecosystem Foundation