## Brian J. Harvey

Jack Corkery and George Corkery Jr. Endowed Professor in Forest Sciences Associate Professor, School of Environmental and Forest Sciences, University of Washington

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#### EDUCATION AND PROFESSIONAL PREPARATION

- 2010 2015 **Ph.D.**, Dept. of Zoology (Ecology), University of Wisconsin-Madison.
- 2007 2010 M.A., Dept. of Geography San Francisco State University.
- 1999 2003 B.A., Dept. of Geography, University of California, Santa Barbara.B.A., Dept. of Environmental Studies, University of California, Santa Barbara.

#### ACADEMIC APPOINTMENTS AND EMPLOYMENT HISTORY

2023-	Associate Professor, School of Environmental & Forest Sciences, University of
	Washington.
2021-	Jack Corkery and George Corkery Jr. Endowed Professor in Forest Sciences.
2020-	Member, Quaternary Research Center, University of Washington.
2018-	Core Faculty, Quantitative Ecology and Resource Management, University of Washington.
2017 - 2023	Assistant Professor, School of Environmental & Forest Sciences, University of
	Washington.
2016 - 2017	Affiliate Investigator, NSF Long Term Ecological Research Network, Niwot Ridge,
	Colorado.
2015 - 2017	David H. Smith Postdoctoral Research Fellow- Society for Conservation Biology,
	University of Colorado – Boulder.
2010 - 2015	Graduate Research Assistant and Teaching Assistant, Department of Integrated Biology
	(formerly Zoology), University of Wisconsin
2007 - 2010	Graduate Research Assistant and Teaching Assistant, Department of Geography and
	Environment, San Francisco State University
2006 - 2008	Senior Staff Environmental Scientist, Ninyo & Moore Geotechnical and Environmental
	Science Consultants, Oakland, CA.

#### **RESEARCH GRANTS AND FELLOWSHIPS**

# (\$14.3M total funding awarded; \$5.2M as lead-PI; \$9.1M as co-PI/collaborator; \$6.7M in external research funding directly to UW)

Pending

2025 - 2029 Joint Fire Science Program Graduate Innovation Award: *Wildfire mediated changes to dimensions of forest resilience: structure, composition, and heterogeneity.* (\$24K – lead PI, with PhD student Angie G. Liotta).

Awarded

2024 - 2029 National Science Foundation: *CAREER: Mechanisms of ecological and fire regime change in temperate maritime forests: disturbance, heterogeneity, and resilience* (\$1.2M – lead PI).

2024 - 2026	Science for Nature and People Partnership (SNAPP): <i>Salmon, Forests, and Fire</i> . (\$224K – co-PI).
2024 - 2026	USDA Forest Service: <i>Evaluating and modeling dry forest restoration and fuel treatment</i> effects through time and across stand successional stages (\$668K – co-PI)
2024 - 2026	USDA Forest Service: Interacting influence of forest management and fire on forest resilience, carbon, fish, and wildlife habitat in the Mt. Hood and Willamette National Forests. Oregon, USA (\$748K - co-PI)
2023 - 2026	Joint Fire Science Program: A rare opportunity to evaluate landscape fuel reduction effectiveness in a high-severity fire regime. (\$379K – lead PI).
2023 - 2026	Joint Fire Science Program: Fuel treatment longevity in the interior Pacific Northwest. (\$481K – lead PI).
2023 - 2026	Joint Fire Science Program (Graduate Research Innovation Award): <i>Stand-level drivers</i> and management impacts on trajectories of reburn potential in western Cascadia. (\$24K – lead PI, with PhD student Jenna Morris).
2022 - 2025	FEMA – Building Resilient Infrastructure and Communities: <i>Tulalip BRIC Partnership</i> <i>Proposal for the development of a project-scoping framework for hazard mitigation plans</i> <i>to maximize effectiveness and efficiency of natural hazard mitigation strategies.</i> (\$1.3M – co-PI).
2023 - 2025	Gordon and Betty Moore Foundation: <i>Western US Fire Ecology and Forest Resilience Science Collaborative</i> (\$3.7M – co-PI on sub award from Cary Institute)
2022 - 2023	USDA Forest Service: Calibration and validation of satellite burn-severity indices with field data in forests of the Interior Pacific Northwest. (\$25K – lead PI).
2022 - 2023	USGS Northwest Climate Adaptation Science Center Fellowship: <i>Post-fire forest</i> <i>trajectories in western Cascadia: simulating vegetation, reburn potential, and user-defined</i> <i>management scenarios under climate change.</i> (\$48K – lead PI, with PhD student Jenna E. Morris)
2022 - 2024	Joint Fire Science Program Graduate Innovation Award: <i>Effects of fuel treatment</i> <i>configuration on avian diversity in western dry forests.</i> (\$25K – lead PI, with PhD student Don C. Badcliffe)
2022 - 2023	Washington Department of Natural Resources: Drivers of post-fire tree regeneration in the Eastern Cascades, Washington. (\$134K – lead-PI).
2022 - 2023	UW Earth Lab Innovation Grants: <i>Cultural Ecosystems in a changing world: building a network across the Northwest to support food sovereignty, climate adaptation, and land rights.</i> (\$124K – co-PI).
2021 - 2022	USGS Northwest Climate Adaptation Science Center Fellowship: <i>Potential impacts of future fires in the western Cascades: insights from spatial metrics of burn severity.</i> (\$47K – lead PI, with PhD student Michele S. Buonanduci).
2021 - 2022	Joint Fire Science Program Graduate Innovation Award: <i>Does high-severity patch structure scale consistently with fire size across the Northwest US?</i> (\$25K – lead PI, with PhD student Michele S. Buonanduci).
2021 - 2023	USDA National Institute of Food and Agriculture: <i>Consequences of forest fires in western Cascadia: post-fire woody carbon and future fire risk.</i> (\$255K – lead PI).
2020 - 2023	USDA Forest Service: Short-term post-fire dynamics following stand-replacing fire in the Western Cascades. (\$161K – lead PI).
2020 - 2022	USDA Forest Service: <i>Re-evaluating historical fire regimes in Westside forests of the Pacific Northwest.</i> (\$450K – co PI).
2020 - 2022	USDA Forest Service: <i>Evaluating current and future fire regimes in Westside forests of the Pacific Northwest.</i> (\$200K – co PI).

2020 - 2023	USDA Forest Service: Landscape assessment: New horizons for a changing world.
2019 - 2022	(5439K – 16au F1). USGS Northwest Climate Adaptation Science Center: Forast fires in western Cascadia:
2017 - 2022	Evaluating drivers and effects to inform climate-adaptive management responses (\$298K
	– lead PI)
2020 - 2021	Washington Department of Natural Resources: Assessing and monitoring forest and fuels
2020 2021	restoration needs in Eastern Washington. (\$304K – co-PI).
2020 - 2021	Joint Fire Science Program Graduate Innovation Award: <i>The race between fuels and fruits:</i>
	testing mechanisms of serotinous forest resilience to short-interval severe reburns. (\$25K
	– lead PI, with PhD student Michelle C. Agne).
2019 - 2022	NASA Carbon Monitoring System: Teal Carbon: stakeholder-driven monitoring of
	forested wetland carbon. (\$575K – co PI).
2019 - 2023	National Science Foundation (GSS): Spatiotemporal interactions among biotic disturbance
	agents, biological legacies, and compensatory responses: Consequences for temperate
	forest resilience. (\$324K – lead PI).
2019 - 2020	USGS Northwest Climate Adaptation Science Center Fellowship: Is there evidence of
	post-fire recruitment failure in serotinous forests of the Pacific Northwest. (\$47K – lead
	PI, with PhD student Michelle C. Agne).
2019 - 2020	UW Royalty Research Fund: A rare opportunity: Gaining insights into current and future
2010 2021	forest resilience to wildfire in the western Cascade Mountains. (\$38K – lead PI).
2019 - 2021	USDA National Institute of Food and Agriculture: Effective duration of fuels treatments on
	resistance to severe wildfire and post-fire resilience in interior Pacific Northwest forests.
2017 2010	(\$200K – leau F1). USDA Forest Service: Calibration and validation of satellite hurn severity indices with
2017 - 2017	field data in forests of the Interior Pacific Northwest (\$237K – lead PI)
2017 - 2019	USDA National Institute of Food and Agriculture: Do stand-thinning treatments promote
2017 2017	resistance and resilience of forests to insects and fire? Unlocking insights from over seven
	decades of USFS Experimental Forest plots. (\$120K – lead PI).
2017 - 2018	National Science Foundation (RAPID): COLLABORATIVE RESEARCH: The 2016
	Yellowstone Fires: early indicators of ecosystem transitions in a more fiery future?
	(\$200K – Co-PI).
2017 - 2018	USGS Northwest Climate Science Center: Changing wildfire, changing forests: A
	synthesis on the effects of climate change on fire regimes and vegetation in the Pacific
••••	Northwest. (\$98K – lead PI).
2017 - 2019	Australian Research Council – Discovery Projects: Fire regimes and demographic
2016 2010	responses interact to threaten woody species. (\$538K – Co-PI).
2016 - 2019	forests in the Northern Poolies (\$415K collaborator)
2015 - 2017	David H Smith Conservation Research Fellowship, Society for Conservation Biology
2013 - 2017	(SCB): Managing for resistance and resilience during a period of accelerating tree
	mortality in Rocky Mountain subalpine forests. (\$192K – PI).
2016 - 2017	Undergraduate Research Opportunities Program - University of Colorado-Boulder:
	Climate-induced changes in subalpine tree mortality, aboveground carbon, and
	regeneration: An opportunity for undergraduate research. (\$3K – Co-PI).
2015 - 2016	Undergraduate Research Opportunities Program - University of Colorado-Boulder:
	Investigating causes and consequences of subalpine forest change: An opportunity for
	undergraduate research experience. (\$3K – Co-PI).
2014 - 2015	Wisconsin Space Grant Consortium - Laurel Salton Clark Memorial Graduate Fellowship:
	<i>Testing for wildfire feedbacks in forests of the Northern Rocky Mountains.</i> (\$5K – PI).

2014	Meyer Research Fund Award, Dept. of Zoology, UW-Madison (\$1.5K).
2012 - 2013	Joint Fire Science Program - Graduate Research Innovation Award: Is spatial
	heterogeneity in burn severity changing with warming climate and increasing wildfire? (\$22K – PI).
2012 - 2013	National Park Service - George Melendez Wright Climate Change Fellowship: Wildfire
	burn severity patterns and forest transitions under a warming climate in national parks of
	the Northern Rockies. (\$19K – PI).
2012 - 2013	National Park Service. Using archival orthophotographs to investigate fire exclusion
	effects in Douglas-fir forests of Grand Teton Natl. Park. (\$10K – Co-PI).
2009	California Native Plant Society, Doc Burr Educational Grant (\$400 – PI).
2008 - 2009	Rod Heller Memorial Scholarship for Environmental Education (\$2.5K)

(Additional \$473K in combined gift donations to support research in the Harvey Lab at UW since 2019)

#### PROFESSIONAL HONORS AND AWARDS

2024	Highly Meritorious Faculty at UW School of Environmental and Forest Sciences.
2023	Highly Meritorious Faculty at UW School of Environmental and Forest Sciences.
2022 - 2026	Early Career Fellow of the Ecological Society of America
2022	Highly Meritorious Faculty at UW School of Environmental and Forest Sciences.
2021 - 2022	Outstanding Diversity Commitment Award, UW College of the Environment
	(co-awardee w/ Sarah Converse for work in the Diversity Equity Inclusion Committee)
2022 - 2024	Jack Corkery and George Corkery Jr. Endowed Professor in Forest Sciences.
2021	Highly Meritorious Faculty at UW School of Environmental and Forest Sciences.
2020	Highly Meritorious Faculty at UW School of Environmental and Forest Sciences.
2019 - 2020	Faculty Member of the Year, UW School of Environmental and Forest Sciences.
2019 - 2020	Director's Award for Faculty Service, UW School of Environmental and Forest Sciences.
	(co-awardee w/ Sarah Converse for work in the Diversity Equity Inclusion Committee)
2019	Highly Meritorious Faculty at UW School of Environmental and Forest Sciences.
2018	Highly Meritorious Faculty at UW School of Environmental and Forest Sciences.
2015	Wilburforce Fellowship in Conservation Science, inaugural class of fellows.
2015	Campus-Wide Capstone Ph.D. Teaching Award, UW-Madison.
2014	Best Graduate Student Poster Award, 25th Annual Wisconsin Space Conference.
2012-	Phi Kappa Phi National Honor Society.
2010	Hood Recipient on behalf of all Graduate Students in the B.S.S. College, SFSU.
2010	Distinguished Achievement Award for Academic Excellence, Dept. of Geography, SFSU.
2009	Pease Memorial Award for Excellence in Geography, Dept. of Geography, SFSU.

## PUBLICATIONS

Google Scholar Profile (total citations: 7,812 *h-index*: 32; *i10-index*: 56)

#### Peer-reviewed research articles and book chapters

<sup>@</sup> Graduate student, postdoctoral researcher, or undergraduate student directly advised as primary advisor/supervisor <sup>#</sup> Graduate student or undergraduate student advised as graduate committee member or co-advisor

## 2024 and in press

69. Thom, D, +22 other authors including <sup>@</sup>Morris, J.E., <sup>@</sup>Kruszka, S.S., **Harvey, B.J.**, 2024. Parameters of 150 temperate and boreal tree species for an individual-based forest landscape and disturbance model. *Data in Brief* 55(2024) 110662.

- 68. Dobrowski, S.Z., +22 other authors including <sup>@</sup>Buonanduci, M.S., **Harvey, B.J.**, 2024. 'Mind the Gap' Reforestation needs vs reforestation capacity in the western United States. *Frontiers in Forests and Global Change* 7 doi: 10.3389/ffgc.2024.1402124.
- 67. <sup>@</sup>Buonanduci, M.S., Donato, D.C., Halofsky, J.S., Kennedy, M.C., **Harvey, B.J.**, 2024. Few large or many small fires: Using spatial scaling of severe fire to quantify effects of fire-size distribution shifts. *Ecosphere* 15(6): e4875.
- 66. Hall, J., Sandor, M.E., Harvey B.J., Parks, S.A., Trugman, A.T., Williams, A.P., Hansen, W.D., 2024. Forest carbon storage in the Western United States: distribution, drivers, and trends. *Earth's Future* 12(7): e2023EF004399
- 65. "Radcliffe, D.C., Bakker, J.D., Churchill, D.J., Alvarado, E.C, Peterson, D.W., "Laughlin, M.M., Harvey, B.J., 2024. How are long-term stand structure, fuel profiles, and potential fire behavior affected by fuel treatment type and intensity in Interior Pacific Northwest forests? *Forest Ecology and Management* 551: 121594.
- <u>2023</u>
- 64. <sup>@</sup>Laughlin, M.M., <sup>@</sup>Rangel-Parra, L.K., <sup>@</sup>Morris, J.E., Donato, D.C., Halofsky, J.S., 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* 549:121491.
- 63. Donato, D.C., Halofsky, J.S., Churchill, D.J., Haugo, R.D., Cansler, C.A., Smith, A., Harvey, B.J., 2023. Does large area burned mean a bad fire year? Comparing contemporary wildfire years to historical fire regimes informs the restoration task in fire-dependent forests. *Forest Ecology and Management* 546: 121372.
- 62. <sup>@</sup>Buonanduci, M.S., Donato, D.C., Halofsky, J.S., Kennedy, M.C., **Harvey, B.J.**, 2023. Consistent spatial scaling of high-severity wildfire can inform expected future patterns of burn severity. *Ecology Letters* 26:1687-1699.
- 61. <sup>@</sup>Agne, M.C., Fontaine, J.B., Enright N.J., Bisbing, S.M., **Harvey, B.J.**, 2023. Rapid fuel recovery after stand-replacing fire in closed-cone pine forests and implications for short-interval severe reburns. *Forest Ecology and Management* 545: 121263.
- 60. <sup>@</sup>Morris, J.E., <sup>@</sup>Buonanduci, M.S., <sup>@</sup>Agne, M.C., Battaglia, M.A., Donato, D.C., **Harvey, B.J.**, 2023. Fuel profiles and biomass carbon following bark beetle outbreaks: Insights for disturbance interactions from a historical silvicultural experiment. *Ecosystems* 26:1290-1308.
- 59. <sup>@</sup>Saberi, S.J., **Harvey, B.J.**, 2023. What is the color when black is burned? Quantifying forest (re)burn severity in short-interval fires using field and satellite indices. *Fire Ecology* (24): 19-24.
- 58. Davis, K.T., +59 other authors including Harvey, B.J., 2023. Reduced fire severity offers near-term buffer to climate-driven declines in conifer resilience across the western United States. *Proceedings of the National Academy of Sciences* 120(11): e2208120120.
- 57. Harvey, B.J., <sup>@</sup>Buonanduci, M.S., Turner, M.G., 2023. Spatial interactions among short-interval fires reshape forest landscapes. *Global Ecology and Biogeography* 32: 586-602.
- 56. \*Miller, C.W., Harvey, B.J., Kane, V.R., Moskal, L.M., Alvarado, E. C., 2023. Different approaches make comparing studies of burn severity challenging: A review of methods used to link remotely sensed data with the Composite Burn Index. *International Journal of Wildland Fire* 32(4): 449-475.
- 55. <sup>@</sup>Buonanduci, M.S., <sup>@</sup>Morris, J.E., <sup>@</sup>Agne, M.C., Battaglia, M.A., **Harvey, B.J.**, 2023. Fine-scale spatial heterogeneity shapes compensatory responses of a subalpine forest to severe bark beetle outbreak. *Landscape Ecology* 38: 253-270.
- 54. <sup>@</sup>Laughlin, M.M., Bakker, J.D., Churchill, D.J., Gregory M.J., DeMeo, T.E., Alvarado E.C., Harvey, B.J., 2023. Trends in forest structure restoration need over three decades with increasing wildfire activity. *Forest Ecology and Management* 527: 120607.

53. Harvey, B.J., Hart, S.J., Tobin, P.C., Veblen, T.T., Donato, D.C., <sup>@</sup>Buonanduci, M.S., <sup>#</sup>Pane, A.M., <sup>@</sup>Stanke, H.D., Rodman, K.C. 2023. Emergent hotspots of biotic disturbances and their consequences for forest resilience. *Frontiers in Ecology and the Environment* 21(8): 353-400.

#### <u>2022</u>

- 52. Rodman, K., +21 other authors including <sup>@</sup>Morris J.E., **Harvey, B.J.**, 2022. Rocky Mountain forests are poised to recover following bark beetle outbreaks, but with altered composition. *Journal of Ecology* https://doi.org/10.1111/1365-2745.13999
- 51. Howe, A.A., Parks, S.A., Harvey B.J., <sup>@</sup>Saberi. S.J., Lutz. J.A., Yocum, L.L., 2022. Comparing Sentinel-2 and Landsat 8 for burn severity mapping in western North America. *Remote Sensing* 14, 5249.
- 50. <sup>@</sup>Agne, M.C., Fontaine, J.B., Enright N.J., **Harvey, B.J.**, 2022. Fire interval and post-fire climate effects on serotinous forest resilience. *Fire Ecology* 18(22).
- 49. Shuman J.K., +86 other authors including **Harvey**, **B.J.**, 2022. Reimagine Fire Science for the Anthropocene. *Proceedings of the National Academy of Sciences Nexus* 1(3): pgac115.
- 48. <sup>@</sup>Agne, M.C., Fontaine, J.B., Enright, N.J., Bisbing, S.M., **Harvey, B.J.** 2022. Demographic processes underpinning post-fire resilience in California closed-cone pine forests: the importance of fire interval, stand structure, and climate. *Plant Ecology* 223: 751-767.
- 47. **Harvey, B.J.**, Enright N.J. 2022. Climate change and altered fire regimes: Impacts on plant populations, species, and ecosystems in both hemispheres. *Plant Ecology* 223: 699-709.
- 46. Reilly, M.J., Zuspan, A., Halofsky, J.S., Raymond, C.L., McEvoy, A., Dye, A.W., Donato, D.C., Kim, J.B., Potter, B.E., Walker, N., Davis, R., Dunn, C.J., Bell, D.M., Gregory, M.J., Johnston, J.D., Harvey, B.J., Halofsky, J.E., Kerns, B.K. 2022. Cascadia Burning: The historic, but not historically unprecedented, 2020 wildfires in the Pacific Northwest, USA. *Ecosphere* 13(6): e4070.
- 45. <sup>@</sup>Saberi, S.J., <sup>@</sup>Agne, M.C., **Harvey, B.J.**, 2022. Do You CBI What I See? The relationship between the Composite Burn Index and quantitative field measures of burn severity varies across gradients of forest structure. *International Journal of Wildland Fire* 31(2): 112-123.
- 44. Muthukrishnan, R., Hayes, K., Bartowitz, K., Cattau, M.E., Harvey, B.J., Lin, Y., Lunch, C. 2022. Harnessing NEON to evaluate ecological tipping points: opportunities, challenges, and approaches. *Ecosphere* 13(3): e03989.
- 43. <sup>@</sup>Morris, J.E., <sup>@</sup>Buonanduci, M.S., <sup>@</sup>Agne, M.C., Battaglia, M.A., **Harvey, B.J.**, 2022. Does the legacy of historical thinning treatments foster resilience to bark beetle outbreaks in subalpine forests? *Ecological Applications* 32(1): e02474.
- <u>2021</u>
- 42. Nagy, R.C., +99 other authors including Harvey, B.J., 2021. Harnessing the NEON Data Revolution to Advance Open Environmental Science with a Diverse and Data-Capable Community. *Ecosphere* 12(12): e03833.
- 41. Abatzoglou, J.T., Battisti, D.S., Williams, A.P., Hansen, W.D., Harvey, B.J., Kolden, C.A. 2021. Continued increases in western US forest fire despite growing fuel constraints. *Nature Communications Earth & Environment* 2(1): 1-8.
- 40. Harvey, B.J., Hart, S.J., Cansler, C.A. 2021. Disturbance regime concept. In: Francis, R.A., Millington, J.D.A., Perry, G.L.W., Minor, E.S., (editors). *Routledge Handbook of Landscape Ecology*. Routledge Publishing, New York, NY: 159-174. (book chapter)
- 39. Hood, S.M., Harvey, B.J., Fornwalt, P.J., Naficy, C.E., Hansen, W.D., Davis, K.T., Battaglia, M.A., Stevens-Rumann, C., Saab, V. 2021. Fire Ecology of Rocky Mountain Forests. In: Greenberg, K., Collins, B., (editors). *Fire Ecology and Management: Past, Present, and Future of US Forested Ecosystems*. (book chapter)

- 38. \*Andrus, R.A., \*Chai, R., **Harvey, B.J.**, Rodman, K., Veblen, T.T., 2021. Increasing rates of subalpine tree mortality linked to warmer and drier summers. *Journal of Ecology*. 109(5): 2203-2218.
- 37. Rodman, K. \*Andrus, R.A., Butkiewicz, Chapman, T., Gill, N., Harvey B.J., Kulakowski, D., Tutland, N, Veblen, T.T., Hart, S.J. 2021. Effects of bark beetle outbreaks on forest landscape pattern in the Southern Rocky Mountains, U.S.A. *Remote Sensing* 13: 1089.
- 36. Harvey, B.J., \*Andrus, R.A., Battaglia, M.A., Negrón, J.F., <u>Orrego, A.</u>, Veblen, T.T., 2021. Droughty times in mesic places: Factors associated with forest mortality vary by scale in a temperate subalpine region. *Ecosphere* 12(1): e03318. (selected by the USFS Rocky Mountain Research Station for the 2021 Director's Choice Award).

#### <u>2020</u>

- 35. Cansler, C.A., +74 other authors including **Harvey**, **B.J.**, 2020. The Fire and Tree Mortality Database (FTM): a database for empirical modeling of tree mortality after fire. *Scientific Data*. 7, 194.
- 34. <sup>@</sup>Buonanduci, M.S., <sup>@</sup>Morris, J.E., <sup>@</sup>Agne, M.C., **Harvey, B.J.**, 2020. Neighborhood context mediates probability of host tree mortality in a severe bark beetle outbreak. *Ecosphere* 11(8): e03236.
- 33. McLauchlan, K., +43 other authors including **Harvey, B.J.**, 2020. Fire as a fundamental ecological process: research advances and frontiers. *Journal of Ecology* 108: 2047-2069. "*Top Cited Article Award*" (top cited article for Journal of Ecology in 2020-2021).
- 32. Coop, J.D., +22 other authors including **Harvey, B.J.**, 2020. Wildfire-driven forest conversion in western North American landscapes. *BioScience* 70(8): 659-673. *"Highly Cited Paper" (top 1% of cited papers for Environment/Ecology in publication year) on Web of Science*.
- 31. \*Andrus, R.A., Harvey, B.J., @Hoffman, A., Veblen, T.T. 2020. Reproductive maturity and cone abundance varies with tree size and stand basal area for two widely distributed conifers. *Ecosphere* 11(5): e03092.
- Halofsky, J.E., Peterson, D.L., Harvey, B.J., 2020. Changing wildfire, changing forests: The effects of climate change on fire regimes and vegetation in the Pacific Northwest. *Fire Ecology* 16(4).
   2019
- 29. McWethy, D., Schoennagel, T., Higuera, P., Krawchuck, M., Harvey, B.J., Metcalf, L., Schultz, C., Metcalf, A., Buma, B., Ratajczak, Z. 2019. Rethinking resilience to wildfire. *Nature Sustainability* 2: 797-804.
- 28. Turner, M.G., Braziunas, K.H., Hansen, W.D., Harvey, B.J. 2019. Short-interval severe fire erodes the resilience of subalpine lodgepole pine forests. *Proceedings of the National Academy of Sciences* 116(23): 11319-11328.
- 27. \*Chai, R. \*Andrus, R.A., Harvey, B.J., Rodman, K., Veblen, T.T. 2019. Stand dynamics and topographic setting influence changes in live tree biomass over a 34-year permanent plot record in subalpine forest in the Colorado Front Range. *Canadian Journal of Forest Research* 49(10): 1256-1264.
- 26. Higuera, P., Metcalf, A., Miller, C., Buma, B., McWethy, D., Metcalf, E., Ratajczak, Z., Nelson, C., Chaffin, B., Stedman, R., McCafrey, S., Schoennagel, T., Harvey, B.J., Hood, S., Schultz, C., Black, A., Campbell, D., Haggerty, J., Keane, R., Krawchuk, M., Kulig, J., Rafferty, R., Virapongse, A. 2019. Integrating subjective and objective dimensions of resilience in fire-prone landscapes. *BioScience* 69(5): 379-388.
- 25. **Harvey, B.J.**, \*Andrus, R.A., Anderson, S.A., 2019. Incorporating biophysical gradients and uncertainty into burn severity maps in a temperate fire-prone forested region. *Ecosphere* 10(2): e02600.
- 24. Buma, B., Harvey, B.J., Gavin, D., Kelly, R., Laboda, T., McNeil, B., Marlon, J., Meddens, A., Morris, J., Raffa, K., Shuman, B., Smithwick, E., McLauchlan, K. 2019. The value of linking paleoecological and neoecological perspectives to understand spatially explicit ecosystem resilience. *Landscape Ecology* 34(1): 17-33.

- Sommerfeld, A., Senf, C., Buma, B., D'Amato, A.W., Despres, T., Diaz-Hormazabal, I., Fraver, S., Frelich, L.E., Gutierrez, A.G., Hart, S.J., **Harvey, B.J.**, He, H.S., Hlasny, T., Holz, A., Kitzberger, T., Kulakowski, D., Lindenmayer, D., Mori, A., Muller, J., Paritsis, J., Perry, G.L.W., Stephens, S., Svoboda, M., Turner, M.G., Veblen, T.T., Seidl, R. 2018. Patterns and drivers of recent disturbances across the temperate forest biome. *Nature Communications* 9: 4355.
- 22. \*Andrus, R.A., **Harvey, B.J.**, \*Chai, R., Veblen, T.T. 2018. Different vital rates of Engelmann spruce and subalpine fir explain discordance in understory and overstory dominance. *Canadian Journal of Forest Research* 48(12):1554-1562.
- 21. Halofsky, J.S., Donato, D.C., Franklin, J.F., Halofsky, J.E., Peterson, D.L., **Harvey, B.J.** 2018. The nature of the beast: Examining climate adaptation options in forests with stand-replacing fire regimes. *Ecosphere* 9(3): e02140.
- 20. \*Andrus, R.A., **Harvey, B.J.**, Rodman, K., Hart, S.J., Veblen, T.T. 2018. Moisture availability limits subalpine tree establishment. *Ecology* 99(3): 567-575.
- Stevens-Rumann, C.S., Kemp, K.B., Higuera, P.E., Harvey, B.J., Rother, M.T., Donato, D.C., Morgan, P, Veblen T.T. 2018. Evidence for declining forest resilience to wildfires under climate change. *Ecology Letters* 21(2): 243-252. "*Highly Cited Paper*" (top 1% of cited papers for *Environment/Ecology in publication year*) on Web of Science.

#### <u>2017</u>

- 18. Schoennagel, T, Balch, J.K., Brenkert-Smith, H., Dennison, P.E., Harvey, B.J., Krawchuck, M.A., Miekiewicz, N., Morgan, P., Moritz. M.A., Rasker, R., Turner, M.G., Whitlock, C.L. 2017. Adapt to more wildfire in western North American forests as climate changes. *Proceedings of the National Academy of Sciences* 114(8): 4582-4590. "Highly Cited Paper" (top 1% of cited papers for Environment/Ecology in publication year) on Web of Science.
- Rose, K.C., Graves, R.A., Hansen, W.D., Harvey, B.J., Qiu, J., Wood, S., Ziter, C., Turner, M.G. 2017. Historical foundations and future directions in macrosystems ecology. *Ecology Letters* 20(2): 147-157.
- 16. Turner, M.G., Donato, D.C., Hansen, W.D., Harvey, B.J., Romme, W.H., Westerling, A.L. 2017. Climate change and novel disturbance regimes in national park landscapes. In: Beissinger, S.R., Ackerly, D.D., Doremus, H., Machlis, G., (editors). *Science, Conservation, and National Parks*. University of Chicago Press, Chicago, IL: 77-101. (book chapter)

#### <u>2016</u>

- 15. Harvey, B.J. 2016. Human-caused climate change is now a key driver of forest fire activity in the western United States. *Proceedings of the National Academy of Sciences* 113(42): 11649-11650. (invited commentary)
- Harvey, B.J., Donato, D.C., Turner, M.G. 2016. Drivers and trends in landscape patterns of standreplacing fire in forests of the US Northern Rocky Mountains (1984-2010). *Landscape Ecology* 31: 2367-2383.
- Johnstone, J.F., Turner, M.G., Allen, C.D., Franklin, J.F., Frelich, L.E., Harvey, B.J., Higuera, P.E., Mack., M.C., Meentemeyer, R., Metz, M.R., Perry, G.L., Schoenneagel, T. 2016. Changing disturbance regimes, ecological memory, and forest resilience. *Frontiers in Ecology and the Environment* 14(7): 369-378. "*Highly Cited Paper*" (top 1% of cited papers for *Environment/Ecology in publication year*) on Web of Science.
- Donato, D.C., Harvey, B.J., and Turner, M.G. 2016. Regeneration of lower-montane forests a quarter-century after the 1988 Yellowstone Fires: a fire-catalyzed shift in lower treelines? *Ecosphere* 7(8):e01410.
- 11. Harvey, B.J., Donato, D.C., Turner. M.G. 2016. Burn me twice, shame on who? Interactions between successive forest fires across a temperate mountain region. *Ecology* 97(9): 2272-2282.

- 10. **Harvey, B.J.**, Donato, D.C., Turner, M.G. 2016. High and dry: Postfire drought and large standreplacing burn patches reduce postfire tree regeneration in subalpine forests. *Global Ecology and Biogeography* 25: 655-669.
- 9. \*Andrus, R.A., Veblen, T.T., **Harvey, B.J.**, Hart. S.J. 2016. Fire severity unaffected by spruce beetle outbreak in spruce-fir forests of southwestern Colorado. *Ecological Applications* 26(3): 700-711.

## <u>2014</u>

- Harvey, B.J., Donato, D.C., Turner, M.G. 2014. Recent mountain pine beetle outbreaks, wildfire severity, and postfire tree regeneration in the US Northern Rockies. *Proceedings of the National Academy of Sciences* 111(42): 15120-15125.
- Harvey, B.J., Donato, D.C., Romme, W.H., Turner, M.G. 2014. Fire severity and tree regeneration following bark beetle outbreaks: the role of outbreak stage and burning conditions. *Ecological Applications* 24(7): 1608-1625.
- 6. Harvey, B.J., Forrestel, A.B., Holzman, B.A. 2014. Forest resilience following severe wildfire in a semi-urban National Park. *Fremontia* 42(3): 14-18.
- 5. Harvey, B.J., Holzman, B.A. 2014. Divergent successional pathways of stand development following fire in a California closed-cone pine forest. *Journal of Vegetation Science* 25(1): 88-99.

#### <u>2013</u>

- 4. **Harvey, B.J.**, Donato, D.C., Romme, W.H., Turner, M.G. 2013. Influence of recent bark beetle outbreak on fire severity and post-fire tree regeneration in montane Douglas-fir forests. *Ecology* 94(11): 2475-2486.
- Donato, D.C., Simard, M., Romme, W.H., Harvey, B.J., Turner, M.G. 2013. Evaluating post-outbreak management effects on future fuel profiles and stand structure in bark beetle-impacted forests of Greater Yellowstone. *Forest Ecology and Management* 303: 160-174.
- Donato, D.C., Harvey, B.J., Romme, W.H., Simard, M., Turner, M.G. 2013. Bark beetle effects on fuel profiles across a range of stand structures in Douglas-fir forests of Greater Yellowstone, USA. *Ecological Applications* 23(1): 3-20.

#### <u>2011</u>

1. **Harvey, B.J.**, Holzman, B.A, Davis, J.D. 2011. Spatial variability in stand structure and densitydependent mortality in newly established post-fire stands of a California closed-cone pine forest. *Forest Ecology and Management* 262(11): 2042-2051.

#### In review or revision

- <sup>®</sup>Buonanduci, Hart, S.J., Tobin, P.C., **Harvey, B.J.**, in review. Patterns and drivers of biotic disturbance hotspots in western United States coniferous forests. *Journal of Ecology*.
- Hansen, W.D., Bartowitz, K., Sandor, M., Balch, J.K., Hall, J., Harvey, B.J., Kueppers, L., Trugman, L., Williams, A.P., Gange, N., Iglesias, V., Johnston, M., Konings, A., Kibler, C., Marlier, M., Radeloff, V., Raymond, C.L., Schollaert, C. in review. Actionable Science for the growing impact of forest fires. *Frontiers in Ecology and the Environment*.
- Plumanns-Pouton, E., McColl-Gausden, S.C., Collins, L., **Harvey, B.J.**, Krawchuk, M.A. in review. A call for transparent language and application of fire regime measure. *Frontiers in Ecology and the Environment*.

#### Book reviews

1. **Harvey, B.J.** 2017. Stewardship of iconic landscapes in uncertain futures: Lessons from the US Rockies and Appalachians. *Landscape Ecology* 32(3): 693-695. (invited book review)

#### **TECHNICAL REPORTS AND RESEARCH BRIEFS**

- <sup>®</sup>Radcliffe, D.C.. Churchill, D.J., **Harvey, B.J.** 2022. Fuels and restoration treatment longevity in dry forests of the western US: A Synthesis. Final report to the Washington Department of Natural Resources.
- Harvey, B.J., <sup>@</sup>Agne, M.C. 2021. Bishop pine forest health: Science synthesis to inform management and conservation. Final report and white paper prepared for the Golden Gate Parks Conservancy.
- <sup>®</sup>Laughlin, M.M., Bakker, J.D., Churchill, D.J., **Harvey, B.J.** 2020. The status and trends of forest structural restoration need in eastern Washington. Final report to the Washington Department of Natural Resources.
- Halofsky, J.E., Peterson, D.L., **Harvey, B.J.** 2019. Changing Wildfire, Changing Forests: A Synthesis on the Effects of Climate Change on Fire Regimes and Vegetation in the Pacific Northwest. USDA Forest Service General Technical Report. Pacific Northwest Research Station, Portland, Oregon.
- Ho, J.J., Norheim, R.A., Halofsky, J.E., Peterson D.L., **Harvey, B.J.** 2019. Changing Wildfire, Changing Forests: ArcGIS StoryMap (link).
- Halofsky, J.E., Peterson D.L., **Harvey, B.J.** 2019. Changing Wildfire, Changing Forests Research Brief (link).
- Schoennagel, T. Morgan, P., Balch, J.K., Dennison, P.E., Harvey, B.J., Hutto, R.L., Krawchuk, M.A., Mortiz, M.A., Rasker, R., Whitlock, C.L. 2016. Insights from wildfire science: A resource for policy discussions. White paper, Headwaters Economics (link).
- Harvey, B.J. 2015. Testing for wildfire feedbacks in forests of the US Northern Rockies. Report to the Wisconsin Space Grant Consortium.
- Turner, M.G., Romme, W.H., Townsend, P.A., Renkin, R.A., Donato, D.C., Simard, M., Harvey, B.J., Griffin, J.M. 2013. Bark beetles, fuels, and future fire hazard in contrasting conifer forests of Greater Yellowstone. Final report to the Joint Fire Science Program, project no. 09-1-06-3.
- **Harvey, B.J.**, Turner, M.G. 2013. Is spatial heterogeneity of burn severity changing with warming climate and increasing wildfire? Final report to the Joint Fire Science Program, project no. 12-3-01-3.
- Donato, D.C., Abendroth, D., **Harvey, B.J.** 2013. Using archival digital orthophotographs to investigate the effects of fire exclusion and insect outbreaks on Douglas-fir in Grand Teton National Park and surrounding areas. Final report to the U.S. National Park Service, project no. GRTE 00291.
- Abendroth, D., Donato, D.C., **Harvey, B.J.**, Mellander, K. 2013. Using archival digital orthophotographs to investigate the Douglas-fir fire regime: A preliminary study from Grand Teton National Park and the Bridger-Teton National Forest, Wyoming. White paper submitted to the U.S. National Park Service.
- Davis, A., Davis, J.D., **Harvey, B.J.** 2010. Pedro Point Headlands 1941 to 2010: A preliminary study using historical remote sensing and dendrochronology. Final report to the Pacifica Land Trust and the California Coastal Conservancy.
- Harvey, B.J., Brastow, P. 2010. Weeds of San Francisco: Preliminary mapping and assessment report for Weed Management Area strategic planning. Final report to the California Department of Food and Agriculture.
- Augembaugh, K., Harvey, B.J., Hayes, J., Kernan, J., Marion, D.A., Peterson, J., Pipkin, A., Riley, K., Kaye, M. 2009. Fire on the mountain: recent fire history of the Tekoa Mountain Wildlife Management Area, MA. in: Speer, J. H. (ed.) 19<sup>th</sup> Annual North American Dendroecological Fieldweek (NADEF) Final Report. pp. 39-47.

# PRESENTATIONS AT PROFESSIONAL MEETINGS Presenting author

<sup>@</sup> Graduate student or undergraduate student presenter directly advised as primary advisor

#### Invited presentations

- Harvey, B.J., <sup>@</sup>Buonanduci. M.S., Turner, M.G. 2024. Spatial interactions among short-interval fires reshape forest landscapes: implications and opportunities. *Annual Meeting, Ecological Society of America,* Long Beach, CA. Oral presentation in special session "Mechanisms Driving Forest Adaptation to Climate Change."
- Harvey, B.J., Donato, D.C., Halofsky, J.S, "Buonanduci, M.S., "Laughlin, M.M., "Morris, J.E., "Rangel-Parra, L.K., Peterson, D.W. 2023. Early post-fire forest responses across gradients of pre-fire stand age and burn severity in Northwestern Cascadia. 10<sup>th</sup> International Fire Ecology and Management Congress, Monterey, CA. Oral Presentation in special session "Interdisciplinary Fire Science and Management in Temperate Rainforests of the Pacific Northwest."
- Harvey, B.J., <sup>@</sup>Buonanduci M.S., Donato, D.C., Halofsky, J.S., Reilly, M.J. 2023. Characteristics and implications of burn severity heterogeneity from large fires in Northwestern Cascadia. 10<sup>th</sup> International Fire Ecology and Management Congress, Monterey, CA. Oral Presentation in special session "Extreme Fire Spread Events: Drivers, Outcomes, and Management Considerations."
- **Harvey, B.J.** 2023. Forest resilience to fire and interacting disturbances in the northwest US during a period of rapid change. *Annual Meeting, Ecological Society of America,* Portland, OR. Oral presentation in special session "ESA Early Career Fellow Awardees."
- Harvey, B.J., <sup>@</sup>Buonanduci M.S., Donato, D.C., Halofsky, J.S., Reilly, M.J. 2023. Characteristics, drivers, and implications of burn severity heterogeneity in a temperate maritime forest ecosystem. *Annual Meeting, Ecological Society of America,* Portland, OR. Oral presentation in special session "Shared Challenges: Characterizing and Forecasting Ecosystem Responses to Change in Historically Climate-limited Fire Regimes."
- Harvey, B.J., <sup>@</sup>Gonzalez, A.D., <sup>@</sup>Laughlin, M.M., <sup>@</sup>Rangel-Parra, L.K. 2023. Forest fire ecology in the PNW: Drivers and effects of forest fires during a period of rapid change. *North Puget Chapter of the Washington Society of American Foresters*, La Conner, WA. Oral Presentation.
- Harvey, B.J., <sup>@</sup>Buonanduci M.S., Donato, D.C., Halofsky, J.S., Reilly, M.J. 2023. Spatial patterns of burn severity in Western Cascadia: characteristics, drivers, and implications for post-fire landscapes. USFS PNW Research Station Oregon Post-fire Research and Monitoring Symposium, Corvallis, OR. Oral presentation.
- Harvey, B.J., <sup>®</sup>Buonanduci M.S., Donato, D.C., Halofsky, J.S., Reilly, M.J. 2023. Spatial patterns of burn severity in Western Cascadia: characteristics, drivers, and implications for post-fire landscapes. *Proceedings of the Northwest Scientific Association and the Pacific Division of the American Association for the Advancement of Science*, Bellingham, WA. Oral presentation in special session "Climate impacts and adaptations."
- Harvey, B.J., \*Andrus, R.A., @Orrego, A., Battaglia, M.A., Negrón, J.F., Veblen, T.T. 2022. Subalpine fir decline in the US Rocky Mountains: multi-scale factors associated with mortality and forest response. 70<sup>th</sup> Western Forest Insect Work Conference. Edmonton, AB (virtual in 2022 due to COVID-19 restrictions). Oral presentation in special session on "High elevation forests resilience or decline."
- Harvey, B.J., Donato, D.C., Halofsky, J.S., "Buonanduci, M.S., "Laughlin, M.M., "Rangel-Parra, L.K.,
   "Morris, J.E. 2022. Forest fires in western Cascadia: Drivers, characteristics, and indicators of post-fire resilience. 92<sup>nd</sup> Annual Meeting of the Northwest Scientific Association, (virtual in 2022 due to COVID-19 restrictions). Oral Presentation in special session on "Fostering Fire Resilience in the Pacific Northwest."

- Harvey, B.J. 2021. Regional trends in burn severity, tree regeneration, and reburns in the Northern Rockies. 2021 Crown Managers Partnership 2021 Fire Forum: Fire in the Crown of the Continent, Cranbrook, B.C., Canada. Oral presentation (online).
- Harvey, B.J. 2020. Regional trends in burn severity, tree regeneration, and reburns in the Northern Rockies. 2020 Crown Managers Partnership 2020 Fire Forum: Fire in the Crown of the Continent, Cranbrook, B.C., Canada. Oral presentation. (conference cancelled due to COVID-19, one day prior to the start of the conference).
- Harvey, B.J. 2019. Short-interval reburns in subalpine forests of the US Northern Rockies: scaling insights from plots to landscape mosaics. *2019 Interval Squeeze Symposium*, Perth, Western Australia. Oral presentation.
- Harvey, B.J., Turner, M.G. 2019. Landscape patterns of burn severity in short-interval reburns: Individual and cumulative effects from multiple fires on spatial patterns of fire and forest structure. 2019 Annual Meeting of the US-International Association for Landscape Ecology, Fort Collins, CO. Oral presentation in special session on "Wildfire-driven forest conversion in western North American landscapes: Emerging science and implications for resilience and adaptation."
- Meigs, G.W., Harvey, B.J., Krawchuk, M.A. 2019. Improving burn severity mapping for landscape conservation: Incorporating biophysical gradients, uncertainty, and functionally significant patches in burned landscapes. 2019 Annual Meeting of the US-International Association for Landscape Ecology, Fort Collins, CO. Co-presented oral presentation in special session on "Incorporating landscape ecology theory into analyses of forest fires: Insights/challenges/innovations for supporting conservation." (first two authors contributed equally and co-presented talk).
- Harvey, B.J., Bisbing, S., Enright, N.J., Fontaine, J.B., Turner, M.G. 2018. Linked and compound disturbance interactions between multiple fires in conifer forests of the western US. *Fire Continuum Conference: Preparing for the Future of Wildland Fire*. Missoula, MT. Oral presentation in special session on "Assessing resilience to wildfires across the social-ecological spectrum."
- Harvey, B.J., Andrus, R.A., <sup>@</sup>Orrego, A., Battaglia, M.A., Negrón, J.F., Veblen, T.T. 2016. Multi-scale patterns of subalpine fir mortality are driven by complex interactions among broad-scale climate, local topography, stand structure, and tree characteristics. *Fall Meeting, American Geophysical Union*. San Francisco, CA. Oral presentation in special session on "Alteration of drought-driven forest dynamics under a changing climate."
- Harvey, B.J., Veblen, T.T. 2015. Direct and indirect effects of drought on forest ecosystems. USGS North Central Climate Science Center. Fort Collins, CO. Oral presentation for "Workshop on Ecological Drought – Impacts, resistance, and recovery."
- Harvey, B.J. 2015. Burn me twice, shame on who? Testing for feedbacks among multiple wildfires and identifying factors leading to two successive stand-replacing fires. *International Fire Ecology and Management Congress*. San Antonio, TX. Oral presentation in special session on "Wildland fire impacts on subsequent fire behavior, fire effects, and post-fire vegetation dynamics."
- Harvey, B.J. 2015. Forest structure, wildfire severity, and postfire resilience following recent bark beetle outbreaks in the US Northern Rockies. *International Fire Ecology and Management Congress*. San Antonio, TX. Oral presentation in special session on "Changing fire regimes: ecological change as a consequence of climate warming and dynamic/novel fuel complexes."
- Harvey, B.J., Donato, D.C., Turner, M.G., 2014. Landscape patterns and disturbance legacies: Is a warming climate altering spatial patterns of wildfire severity and post-fire forest succession? *Annual Meeting, Ecological Society of America*, Sacramento, CA. Oral presentation in special session on "Climate Warming, Changing Disturbance Regimes, and Forest Resilience."
- Harvey, B.J., 2014. Testing for wildfire feedbacks in forests of the US Northern Rocky Mountains. 24<sup>th</sup> Annual Wisconsin Space Conference, Fitchburg, WI. Poster presentation.

- Harvey, B.J., Donato, D.C., Turner, M.G., 2014. Post-fire subalpine forest regeneration varies with climate in patches of stand-replacing wildfire. *Large Wildland Fires Conference: Social, Political, and Ecological Effects*, Missoula, MT. Oral presentation in special session on "Social-Ecological Study of Western Fires: Developing and Integrated Framework for Research in Times of Change."
- Harvey, B.J., Turner, M.G., Donato, D.C. 2012. Spatial heterogeneity of burn severity in Northern Rocky Mountain forests (USA) between 1984 and 2011. *International Fire Ecology and Management Congress*, Portland, OR. Invited oral presentation in special session on "Assessing fire effects with remote sensing and geospatial technologies."

#### Contributed presentations

- Harvey, B.J., Donato, D.C., Halofsky, J.S., "Buonanduci, M.S., "Laughlin, M.M., "Rangel-Parra, L.K.,
   "Morris, J.E. 2022. Landscape patterns of burn severity and early post-fire forest trajectories in an infrequent and severe fire regime of Western Cascadia. *Annual Meeting, Ecological Society of America*, Montreal, Canada (talk accepted but presentation canceled because of emergency changing travel plans). Oral Presentation.
- Harvey, B.J., Donato, D.C., Halofsky, J.S., <sup>@</sup>Buonanduci, M.S., <sup>@</sup>Laughlin, M.M., <sup>@</sup>Rangel-Parra, L.K.,
   <sup>@</sup>Morris, J.E. 2021. Forest fires in western Cascadia: Drivers, characteristics, and indicators of post-fire resilience. 9<sup>th</sup> International Fire Ecology and Management Congress, Pensacola, FL (virtual in 2021 due to COVID-19 restrictions). Oral Presentation.
- Harvey, B.J., Buonanduci, M.S., Donato, D.C., Halofsky, J.S. 2021. Spatial patterns of burn severity in an archetypal infrequent-severe fire regime: Insights from the Western Cascades. *Annual Meeting, Ecological Society of America*, Long Beach, CA (virtual in 2021 due to COVID-19 restrictions). Oral Presentation.
- Harvey, B.J, Turner, M.G. 2020. Do two rights make a wrong? Individual and combined mosaics of burn severity in short-interval re-burned forests. *Annual Meeting, Ecological Society of America*, Salt Lake City, UT (virtual in 2020 due to COVID-19 restrictions). Oral presentation.
- Harvey, B.J., Black, A., Gucker, C., Jolly, W.H., Parsons, R.A., Schoennagel, T., Wright, V. 2018.
   Embracing complexity and discovering clarity: Bark beetles and fire in subalpine forests of the western US. *Fire Continuum Conference: Preparing for the Future of Wildland Fire*. Missoula, MT. Oral presentation
- Harvey, B.J., Andrus, R.A. 2017. From charred trees to satellite sensors: Translating remotely sensed indices into on-the-ground measures of burn severity in Rocky Mountain forests. *Annual Meeting, Ecological Society of America*, Portland, OR. Oral presentation.
- Harvey, B.J., Andrus, R.A., Battaglia, M.A., Negrón, J.F., Veblen, T.T. 2016. Red, dead and spread: Multi-scale patterns of recent subalpine fir mortality across the US Rocky Mountains. *North American Congress for Conservation Biology*, Madison, WI. Oral presentation.
- Harvey, B.J., Donato, D.C., Turner, M.G., 2015. High and dry: Large stand-replacing burn patches and postfire drought reduce postfire resilience in subalpine forests of the US Northern Rocky Mountains. *Annual Meeting, Ecological Society of America*, Baltimore, MD. Oral presentation.
- Harvey, B.J., 2015. Mosaics or moonscapes? Spatial heterogeneity of burn severity in forests of the US Northern Rocky Mountains (1984-2010). World Congress, International Association for Landscape Ecology, Portland, OR. Oral presentation.
- Harvey, B.J., Donato, D.C., Simard, M., Griffin, J.M., Romme, W.H., Turner, M.G., 2014. Disturbances across boundaries: Forest structure, wildfire severity, and postfire resilience following recent bark beetle outbreaks in Greater Yellowstone. 12<sup>th</sup> Biennial Scientific Conference on the Greater Yellowstone Ecosystem, Mammoth Hot Springs, Yellowstone National Park. Oral presentation.
- Harvey, B.J., Donato, D.C., Turner, M.G., 2014. Are spatial patterns of burn severity changing with warming climate and increasing wildfire? *Large Wildland Fires Conference: Social, Political, and Ecological Effects*, Missoula, MT. Oral presentation.

- Harvey, B.J., Donato, D.C., Romme, W.H., Turner, M.G., 2013. Field evidence of recent bark beetle outbreaks and fire severity in subalpine forests: the importance of time since outbreak and burning conditions. *Annual Meeting, Ecological Society of America*, Minneapolis, MN. Oral presentation.
- Harvey, B.J., Turner, M.G., Romme, W.H., Donato, D.C. 2012. Douglas-fir beetle impacts on fire severity and postfire tree regeneration in lower montane forests of Greater Yellowstone. *Annual Meeting, Ecological Society of America,* Portland, OR. Oral presentation.
- Harvey, B.J., Turner, M.G., Romme, W.H., Donato, D.C., Simard, M., Townsend, P.A. 2011. Effects of recent mountain pine beetle infestation on fire severity and post-fire regeneration in a lodgepole pine forest of Greater Yellowstone. *Annual Symposium, U.S. International Association for Landscape Ecology*, Portland, OR. Oral presentation.
- Harvey, B.J., Holzman, B.A. 2010. Post-fire stand dynamics in a *Pinus muricata* forest (1995-2009).
   Biogeography Specialty Group Masters and Undergraduate Student Paper Competition. *Annual Meeting, Association of American Geographers*, Washington, D.C. Oral presentation.
- Crowley, B.J., **Harvey, B.J.**, Holzman, B.A. 2009. Dynamics of pitch canker disease in bishop pines (*Pinus muricata*) at Point Reyes National Seashore, CA. *Annual Meeting, Association of American Geographers*, Las Vegas, NV. Poster presentation. (first two authors contributed equally).

#### **Primary advisor of postdoctoral associate or graduate / undergraduate student-mentee presenter** <sup>@</sup> Graduate student or undergraduate student presenter directly advised as primary advisor

#### Invited presentations

- <sup>®</sup>Buonanduci, M.S., D.C. Donato, J.S. Halofsky, M.C. Kennedy, Harvey, B.J. 2023. Harnessing spatial scaling relationships to inform expected future spatial patterns of burn severity across fire size distributions. 10<sup>th</sup> International Fire Ecology and Management Congress, Monterey, CA. Oral Presentation in special session "Extreme Fire Spread Events: Drivers, Outcomes, and Management Considerations."
- <sup>®</sup>Laughlin, M.M., <sup>®</sup>Rangel-Parra, L.K., Donato, D.C., Halofsky, J.A., Harvey, B.J. 2023. Built-in resilience? Testing mechanisms of conifer seed availability within infrequent, stand-replacing fire regimes of the northwestern Cascades, USA. 10<sup>th</sup> International Fire Ecology and Management Congress, Monterey, CA. Oral Presentation in special session "The role of seeds in post-fire recovery."
- <sup>®</sup>Gonzalez, A.D., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2023. Drivers of post-fire tree regeneration across gradients of climate and burn severity in Eastern WA, USA. 10<sup>th</sup> International Fire Ecology and Management Congress, Monterey, CA. Oral Presentation in special session "Postfire tree regeneration failure and ecological transitions."
- <sup>®</sup>Buonanduci, M.S., D.C. Donato, J.S. Halofsky, M.C. Kennedy, Harvey, B.J. 2023. Scaling burn severity patterns across regions and fire regimes yields insights into historically climate-limited fire regimes. *Annual Meeting, Ecological Society of America, Portland, OR. Oral presentation in* special session "Shared Challenges: Characterizing and Forecasting Ecosystem Responses to Change in Historically Climate-limited Fire Regimes."
- <sup>®</sup>Rangel-Parra, L.K., <sup>®</sup>Laughlin, M.M., <sup>®</sup> Morris, J.E., Donato, D.C., Halofsky, J.A., Harvey, B.J. 2023. Early-seral plant community diversity varies by burn severity and disturbance interval in northwestern Cascadia. *Annual Meeting, Ecological Society of America, Portland, OR. Oral* presentation in special session "Shared challenges: novel ecosystem responses to changes in historically climate-limited fire regimes."
- <sup>®</sup>Laughlin, M.M., <sup>®</sup>Rangel-Parra, L.K., <sup>®</sup> Morris, J.E., Donato, D.C., Halofsky, J.A., Harvey, B.J. 2023. Post-fire tree regeneration rate and composition in western Cascadia varies by disturbance interval. *Annual Meeting, Ecological Society of America,* Portland, OR. Oral presentation in

special session "Shared challenges: novel ecosystem responses to changes in historically climatelimited fire regimes."

- <sup>®</sup>Morris, J.E., <sup>®</sup>Kruszka, S.S., <sup>®</sup>Laughlin, M.L., <sup>®</sup>Rangel-Parra, L.K., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2023. Measuring and modeling post-fire forest trajectories in northwestern Cascadia. *Annual Meeting, Ecological Society of America,* Portland, OR. Oral presentation in special session "Shared Challenges: Characterizing and Forecasting Ecosystem Responses to Change in Historically Climate-limited Fire Regimes."
- <sup>®</sup>Buonanduci M.S., Donato, D.C., Halofsky, J.S., Reilly, M.J., Kennedy, M.C., Harvey, B.J., 2023. Examining wildfires from other regions and fire regimes yields insights into future patterns of burn severity in western Cascadia. USFS PNW Research Station Oregon Post-fire Research and Monitoring Symposium, Corvallis, OR. Oral presentation.
- <sup>®</sup>Morris, J.E., <sup>®</sup>Laughlin, M.M, <sup>®</sup>Rangel-Parra, L.K., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2023. Impacts of forest structure and burn severity on reburn potential in western Cascadia. USFS PNW Research Station Oregon Post-fire Research and Monitoring Symposium, Corvallis, OR. Oral presentation.
- <sup>®</sup>Rangel-Parra, L.K., <sup>®</sup>Laughlin, M.M, <sup>®</sup>Morris, J.E., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2023. Composition and diversity of early-seral forest communities vary with burn severity and pre-fire stand age following fire in western Cascadia. USFS PNW Research Station Oregon Post-fire Research and Monitoring Symposium, Corvallis, OR. Oral presentation.
- <sup>®</sup>Laughlin, M.M, <sup>®</sup>Rangel-Parra, L.K., <sup>®</sup>Morris, J.E., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2023. Patterns and drivers of conifer regeneration following stand-replacing wildfire in western Cascadia. USFS PNW Research Station Oregon Post-fire Research and Monitoring Symposium, Corvallis, OR. Oral presentation.
- <sup>®</sup>Buonanduci, M.S., Donato, D.C., Halofsky, J.S., Kennedy, M.C., **Harvey, B.J**. 2022. Western Cascadia wildfire: spatial patterns of burn severity and implications for future ecological impacts. UW-SAFS Quantitative Seminar Series. Oral Presentation.
- <sup>®</sup>Agne, M.C., Fontaine J.B, Enright N.J., Harvey, B.J. 2021. Too soon? Evidence of declining post-fire regeneration in reburned serotinous forests. 9<sup>th</sup> International Fire Ecology and Management Congress, Pensacola, FL (virtual in 2021 due to COVID-19 restrictions). Oral Presentation.
- <sup>®</sup>Agne, M.C., Fontaine J.B, Enright N.J., Harvey, B.J. 2021. Too soon? Evidence of declining post-fire regeneration in reburned serotinous forests. *International Association for Landscape Ecology North America Annual Meeting*. Reno, NV (virtual in 2021 due to COVID-19 restrictions). Oral Presentation.
- <sup>®</sup>Agne, M.C., Fontaine J.B, Enright N.J., Harvey, B.J. 2020. Effects of short-interval reburn on knobcone pine regeneration in the Carr Fire. 2020 Northern California Botanists Symposium. Chico, CA. Oral presentation.
- <sup>®</sup>Agne, M.C., Fontaine J.B, Enright N.J., Bisbing S., **Harvey, B.J.** 2019. The race between fuels and fruits in serotinous pines of North America. 2019 Interval Squeeze Symposium, Perth, Western Australia. Oral presentation.

Contributed presentations

- <sup>®</sup>Radcliffe D.C., Bakker J.D., <sup>®</sup>Laughlin M.M., Alvarado E.C., Churchill D.J., Peterson D.W., Harvey B.J. 2023. How are long-term stand structure, fuel profiles, and potential fire behavior affected by fuel treatment type and intensity in Interior Pacific Northwest forests? 10<sup>th</sup> International Fire Ecology and Management Congress, Monterey, CA. Oral Presentation
- <sup>®</sup>Morris, J.E., <sup>®</sup>Laughlin, M.M, <sup>®</sup>Rangel-Parra, L.K., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2023. Exploring drivers of reburn potential in northwestern Cascadia. 10<sup>th</sup> International Fire Ecology and Management Congress, Monterey, CA. Poster Presentation.

- <sup>®</sup>Gonzalez A.D., Donato D.C., Halofsky J.S., **Harvey B.J.** 2023. Drivers of post-fire tree regeneration across gradients of climate and burn severity in Eastern WA, USA. *Annual Meeting, Ecological Society of America,* Portland, OR. Oral presentation
- <sup>®</sup>Kruszka, S.S., <sup>®</sup>Morris, J.E., Braziunas, K.H., Harvey, B.J., 2023. Parameterizing five Pacific Northwest (USA) tree species in a process-based forest landscape simulation model. *Annual Meeting, Ecological Society of America,* Portland, OR. Poster presentation
- <sup>®</sup>Radcliffe D.C., Bakker J.D., Churchill D.J., Harvey B.J. 2023. Long-term effects of common fuel treatments on fuel loads in Western US dry forests: knowledge gaps and research advances." *Annual Meeting, Ecological Society of America,* Portland, OR. Oral presentation
- <sup>®</sup>Rangel-Parra, L.K., <sup>®</sup>Laughlin, M.M, <sup>®</sup>Morris, J.E., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2022. Laying the groundwork: Drivers of post-fire early-seral plant community trajectories in western Cascadia. *National Diversity in Stem Conference, Society for Advancement of Chicanos and Native Americans in Science*, San Juan, Puerto Rico. Oral Presentation.
- <sup>®</sup>Morris, J.E., <sup>®</sup>Laughlin, M.M, <sup>®</sup>Rangel-Parra, L.K., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2021. Carbon consequences and reburn potential following forest fires in western Cascadia: influence of stand age and burn severity. 9<sup>th</sup> International Fire Ecology and Management Congress, Pensacola, FL (virtual in 2021 due to COVID-19 restrictions). Poster Presentation (received 1<sup>nd</sup> place award in student poster contest).
- <sup>®</sup>Rangel-Parra, L.K., <sup>®</sup>Laughlin, M.M, <sup>®</sup>Morris, J.E., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2021. Laying the groundwork: Drivers of post-fire early-seral plant community trajectories in western Cascadia. 9<sup>th</sup> International Fire Ecology and Management Congress, Pensacola, FL (virtual in 2021 due to COVID-19 restrictions). Poster Presentation.
- <sup>®</sup>Laughlin, M.M, <sup>®</sup>Rangel-Parra, L.K., <sup>®</sup>Morris, J.E., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2021. Disturbance and climate drivers of conifer regeneration following stand-replacing wildfire in western Cascadia, USA. 9<sup>th</sup> International Fire Ecology and Management Congress, Pensacola, FL (virtual in 2021 due to COVID-19 restrictions). Poster Presentation.
- <sup>®</sup>Radcliffe D.C., <sup>®</sup>Laughlin M.M., Bakker J.D., Alvarado E.C., Churchill D.J., Peterson D.W., Harvey
   **B.J.** 2021. Long-term trajectories of fuels and stand structure in dry forests of central Washington.
   9<sup>th</sup> International Fire Ecology and Management Congress, Pensacola, FL (virtual in 2021 due to COVID-19 restrictions). Oral Presentation.
- <sup>®</sup>Buonanduci, M.S., Donato, D.C., Halofsky, J.S., Harvey, B.J. 2021. Potential impacts of future fires in western Cascadia: scaling spatial patterns of burn severity. 9<sup>th</sup> International Fire Ecology and Management Congress, Pensacola, FL (virtual in 2021 due to COVID-19 restrictions). Oral Presentation.
- <sup>®</sup>Morris, J.E., <sup>®</sup>Buonanduci, M.S., <sup>®</sup>Agne, M.C., Harvey, B.J.. 2020. Cutting a course: historical thinning treatments direct forest response to mountain pine beetle outbreaks. *Annual Meeting, Ecological Society of America*, Salt Lake City, UT (virtual in 2020 due to COVID-19 restrictions). Oral presentation.
- <sup>®</sup>Radcliffe D.C., <sup>®</sup>Laughlin M.M., Bakker J.D., Harvey B.J. 2020. Long-term trajectories of fuel profiles among experimental restoration treatments in dry forests of the Eastern Cascades. *Annual Meeting, Ecological Society of America*, Salt Lake City, UT (virtual in 2020 due to COVID-19 restrictions). Oral presentation.
- <sup>®</sup>Buonanduci, M.S., <sup>®</sup>Morris, J.E., <sup>®</sup>Agne, M.C., Harvey, B.J.. 2020. Tree neighborhood characteristics affect growth responses of host and non-host trees following a severe mountain pine beetle outbreak. *Annual Meeting, Ecological Society of America*, Salt Lake City, UT (virtual in 2020 due to COVID-19 restrictions). Oral presentation.
- <sup>@</sup>Morris, J.E., <sup>@</sup>Buonanduci, M.S., <sup>@</sup>Agne, M.C., **Harvey, B.J.** 2019. Effects of historical thinning treatments on resistance to mountain pine beetle outbreaks differ between stand- and tree- scales.

*US-International Association for Landscape Ecology Annual Meeting*, Fort Collins, CO. Oral presentation.

- <sup>®</sup>Buonanduci, M.S., <sup>®</sup>Morris, J.E., <sup>®</sup>Agne, M.C., Harvey, B.J. 2019. Individual tree and local tree neighborhood factors affecting mountain pine beetle-induced lodgepole pine mortality. US-International Association for Landscape Ecology Annual Meeting, Fort Collins, CO. Oral presentation (honorable mention for best student presentation contest).
- <sup>®</sup>Agne, M.C., Fontaine J.B, Enright N.J., Bisbing S., Harvey, B.J. 2019. The race between fuels and fruits: coupling seed bank and fuels dynamics to understand forest response to short interval fires. US-International Association for Landscape Ecology Annual Meeting, Fort Collins, CO. Oral presentation
- <sup>®</sup>Agne, M.C., Fontaine, J.B., Enright, N. J., Bisbing, S., Harvey, B.J. 2018. Post-fire propagule availability following short interval fires in California closed-cone conifer forests. *Fire Continuum Conference: Preparing for the Future of Wildland Fire*. Missoula, MT. Poster presentation (received 1<sup>nd</sup> place award in student poster contest).
- <sup>®</sup>Saberi, S.J., Harvey, B.J. 2018. Do You CBI what I See? Relationships among multiple field measures of burn severity in the US Interior Pacific Northwest and Northern Rockies. *Fire Continuum Conference: Preparing for the Future of Wildland Fire*. Missoula, MT. Poster presentation (received 2<sup>nd</sup> place award in student poster contest).

## TEACHING

## University of Washington

Forest Ecolog	<u>vy</u> (5-credit graduate / upper div. undergraduate course, SEFS 501 / ERM 401; 60 students)
2017 -	Lead Instructor (designed and delivered lectures, fieldtrips, and discussion sections)
	Mean Adjusted Combined Median Teaching Evaluation = <b>4.9/5.0</b>
Advanced La	ndscape Ecology (5-credit graduate course, SEFS 541; 20 students)
2019 -	Lead Instructor (designed and delivered lectures, lab exercises, and discussion sections)
	Adjusted Combined Median Teaching Evaluation = <b>4.3/5.0</b>
Old Growth F	Forest Ecology and Management (5-credit undergraduate course, ESRM 315; 40 students)
2017 - 2020	Lead Instructor (designed and delivered lectures, fieldtrips, and discussion sections)
	Mean Adjusted Combined Median Teaching Evaluation = <b>4.9/5.0</b>
Forest resilien	nce to fire in a warming climate (2-credit graduate course, SEFS 521b/550c; 20 students)
2020 -	Co-Instructor (designed and delivered lectures, facilitated discussion sections as a cross-
	institution online seminar between University of Washington and University of Wisconsin)
	Mean Adjusted Combined Median Teaching Evaluation = 4.7/5.0
Forests, Fire,	and Society (5-credit undergraduate course, ESRM 101; 200 students)
2022 -	Lead Instructor (designed and delivered lectures, virtual fieldtrips, and discussion sections)
	Mean Adjusted Combined Median Teaching Evaluation $= 4.6/5.0$

## University of Wisconsin-Madison

General Ecology(upper division, Botany/Forest & Wildlife Ecology/Zoology 460; 120 students)2011 - 2015Laboratory Instructor(designed and delivered laboratory curriculum for two sections of 24<br/>students each; designed and facilitated discussion sections focused on ecological literature)2013Course Coordinator(developed course curriculum and supervised laboratory/discussion<br/>section teaching assistants, facilitated course logistics)2010 - 2011Laboratory Instructor(designed and delivered laboratory curriculum for two sections of 24<br/>students each; advised students on semester-long research projects and scientific writing)

#### San Francisco State University

Introductory Physical Geography (lower division, Geography 101; 100 students)

2009 *Lead Instructor/Lecturer* (designed and delivered lectures and exams to 100 students)

2008 - 2009 *Teaching Assistant* (delivered laboratory curriculum for two sections of 50 students each)

Introductory Environmental Science/Studies (lower division, Geography 600; 80 students)

2008 *Teaching Assistant* (facilitated discussion sections, performed guest lectures, grading)

## OUTREACH ACTIVITIES, DEPARTMENTAL SEMINARS, AND GUEST LECTURES

<u>Outreach act</u>	<u>tivities</u>
2024	Environmental Grantmakers Association Fall 2024 Retreat, Walk in the Woods: Beneficial
	to detrimental wildfire: a spectrum of effects on forests and people. Invited speaker and
	field tour co-lead.
2024	Pacific Education Institute, Engaging Communities in Forest Education: Fire, climate, and
	forests of western Washington. Invited speaker and field tour lead.
2024	Webinar Series by the National Council for Air and Stream Improvement and Washington
	Chapter of the Wildlife Society: Fire Ecology and Forest Resilience in the Pacific
	Northwest. Invited Speaker.
2023	Featured invited speaker, University of Washington, Estate and Planned Giving Council
	(virtual presentation).
2023	Invited guest speaker. McDonald International School – Seattle Public Schools – Forest
	fires in the Pacific Northwest
2022-2023	Federation of American Scientists, Wildland Fire Policy Accelerator for recommendations
	to US Congress Wildland Fire Mitigation and Management Commission. Invited expert.
2022	Governor Inslee (WA), Roundtable Discussion on Forest Health and Climate Change in
	Washington. Invited expert.
2021	King County (WA) Climate Preparedness and Emergency Management: Past, present, and
	future of fires in western Washington: What we know and what we don't. Invited speaker
2021	Washington Native Plant Society: Forest Fires in Cascadia: Past, Present, and Future.
	Invited speaker. <u>(link).</u>
2020	North Cascades Audubon Society & Whatcom Museum: A virtual presentation: Fire in
	Washington's Forests. Invited speaker.
2019	Seward Park Audubon Center, Science, Nature, and a Biscuit: <i>Fire in Washington's</i>
	forests. Invited speaker.
2018	Northern Rockies Fire Science Network: Long-duration fire and re-burn effects in
	Yellowstone National Park. Trip Leader and co-organizer. (link).
2018	Climate Science on Tap, University of Washington Program on the Environment
2018	UW College of the Environment Labs Unlocked: Beetles, blazes, and biofuels.
2018	Invited speaker to Hyla Middle School, Bainbridge Island, WA: Fire in WA Forests
2017	Northwest Climate Science Center. Scientific Advisory Panel (forest management).
2016	Northern Rockies Fire Science Network: Bark beetle outbreaks and wildfires – finding
0016	consensus and coherent messages for decision-makers. Lead organizer.
2016	Northern Rockies Fire Science Network – Network of Fire Science Champions
	Roundtable. Fire and bark beetle research: A discussion of manager information needs.
0016	Invited speaker.
2016	Smith Fellows: Exploring social-ecological resilience in the wildland-urban interface of
2015	Colorado s Front Kange – a fieldtrip. Co-organizer/leader.
2015	Fire Research and Management Exchange System: Wildfire Science and Policy Working
	Group. Team member (link).

- 2015 University of Colorado, Graduate course in Science and Environmental Journalism: *Fire* ecology and beetle outbreaks in Rocky Mountain forests. Invited speaker.
- 2015 Northern Rockies Fire Science Network: *Fire history and fire ecology of Yellowstone A field tour for managers and scientists.* Trip Leader and co-organizer. (link).
- 2015 Colorado Legislature, Senate and Representative bipartisan *Wildfire Matters Review Committee*. Invited expert testimony.
- 2014 East High School, Madison, WI. Mathematics of Planet Earth: Math Week: *Drought, wildfires, and beetle outbreaks: Studying forests during a period of rapid change.*
- 2014 East High School, Madison, WI. A.P. Environmental Science Class: *Forest health, disturbance, and climate change.*
- 2013 National Park Service Webinar Series: Climate Change in America's National Parks: Research from the Next Generation: George Melendez Wright Climate Change Fellowship Science in Parks.
- 2013 East High School, Madison, WI. Mathematics of Planet Earth: Math Week: *Wildfires, bark beetles, and forests: Disturbance ecology in the Rocky Mountains.*
- 2012 Sun Prairie High School, Sun Prairie, WI. *Climate change: separating science and politics*.

Invited keynote addresses, departmental colloquia seminars, and panel discussions

- Colloquia seminar, University of Washington, School of Aquatic and Fishery Sciences 2024 Quantitative Seminar Series. 2024 Colloquia seminar, University of Washington, School of Environmental & Forest Sciences. Colloquia seminar, Technical University of Munich (Germany), Dept. Life Sciences 2023 Invited speaker, Sense of Place Lecture Series, Hood River, OR: Wildfire in the Gorge: 2023 The good, the bad, and lessons from Eagle Creek (link) Colloquia seminar, Western Washington University, College of the Environment 2022 2021 Colloquia seminar, University of Maryland – Baltimore, Department of Geography and **Environmental Systems** Invited speaker, Cascadia Wildfire and Urban Smoke Seminar Series. Forest Fires in 2021 Western Cascadia: Drivers, Characteristics, and Indicators of Post-Fire Resilience 2021 Colloquia seminar, University of Washington, Department of Atmospheric Sciences 2020 Invited speaker and panelist, Cascadia Innovation Corridor forum: Wildfires and urban smoke know no borders. Westside Story: forest fires in western Cascadia
- 2020 Invited speaker, University of Washington, Program on Climate Change Virtual Summer Institute (virtual due to COVID-19 restrictions).
- 2020 Invited speaker, Cascadia Wildfire and Urban Smoke Working Group: Understanding the drivers, characteristics, and effects of forest fires in western Cascadia
- 2019 Featured invited speaker, University of Washington, Henry Suzzallo Society, Seattle, WA.
- 2019 Invited panelist, 2019 Northwestern Forests Fire Science Summit, briefing to the Executive team of the US Forest Service and the US Congress, Washington D.C.
- 2019 Colloquia seminar, University of Washington, Department of Atmospheric Sciences
- 2019 Featured invited speaker, University of Washington, Dawg Days in the Desert event for UW alumni and friends, Palm Desert, CA.
- 2019 Invited panelist, University of Washington School of Environmental & Forest Sciences and PEMCO Insurance co-sponsored seminar: *Fired Up: Building wildfire resilient communities in a changing climate.*
- 2019 Colloquia seminar, Texas A&M University, Department of Ecosystem Science and Management and Ecology and Evolutionary Biology Interdisciplinary Program

2018 Invited speaker, USGS Northwest Climate Adaptation Science Center, Puget Sound Climate Preparedness Collaborative, Tulalip Tribes, and UW-Climate Impacts Group *Conference on Managing Western Washington Wildfire Risk in a Changing Climate.* 

2018 Invited panelist, 2018 Fire Summit for the Western Governors Association.

- 2018 UW College of the Environment Inaugural Seminar Series on Critical Interdisciplinary Problems: *West coast wildfires: What are the key scientific issues?*
- 2018 Colloquia seminar, University of Washington, School of Aquatic and Fishery Sciences Quantitative Seminar Series.
- 2018 Invited speaker, Lynnwood (WA) Public Library, Series on Climate Change in Cascadia
- 2018 Invited panelist, UW-SEFS Xi Sigma Pi Forestry Honor Society Career Panel
- 2017 Invited panelist, University of Washington, Center for Communication, Difference, and Equity Racial Ecologies Conference.
- 2016 Colloquia seminar, University of Washington, School of Environmental & Forest Sciences.
   2016 Keynote address, Workshop on Teaching Controversial Science Topics, Department of Ecology and Evolutionary Biology, University of Colorado – Boulder.
- 2016 Colloquia seminar, Colorado State University, Dept. of Forest and Rangeland Stewardship
- 2016 Colloquia seminar, Colorado State Oniversity, Dept. of Polest and Rangeland Stewardship 2016 Colloquia seminar, University of Texas - San Antonio, Environmental Science Program.
- 2015 Colloquia seminar, University of Colorado, Department of Geography.
- 2015 Keynote address, Annual Meeting, Guild of Rocky Mountain Ecologists and Evolutionary Biologists, University of Colorado.
- 2015 Colloquia seminar, Western State Colorado University, Department of Natural and Environmental Sciences Seminar Series.
- 2015 Colloquia seminar, Oregon State University, Dept. of Forest Ecosystems and Society
- 2013 Colloquia seminar, University of Wisconsin Madison, Chaos and Complex Systems Seminar Series.

Invited Guest lectures

2024	University of Washington, ESRM 201: Sustaining Pacific Northwest Ecosystems
2024	Portland State University, HON 407: Wildfires and Urban Smoke in the Cascadia Region
2023	University of Washington, SEFS 500: Graduate Student Orientation Seminar
2022	University of Washington, SEFS 500: Graduate Student Orientation Seminar
2022	University of Washington, ESRM 201: Sustaining Pacific Northwest Ecosystems
2022	University of Washington, ESRM 201: Sustaining Pacific Northwest Ecosystems
2022	Western Washington University, ESCI 392: Introduction to Global Change
2021	University of Washington, ESRM 441: Landscape Ecology
2021	University of Washington, SEFS 500: Graduate Student Orientation Seminar
2021	University of Washington, ESRM 201: Sustaining Pacific Northwest Ecosystems
2021	University of Washington, UW Program on Climate Change Seminar: Wildfires & Climate
2021	University of Washington, SEFS 509: Analysis of Research Problems
2021	University of Washington, Jackson School of International Studies: Task Force: Wildfires
2020	University of Washington, ESRM 441: Landscape Ecology
2020	University of Washington, ESRM 201: Sustaining Pacific Northwest Ecosystems
2020	Western Washington University, ESCI 392: Introduction to Global Change
2019	University of Washington, ESRM 441: Landscape Ecology
2019	University of Washington, ESRM 201: Sustaining Pacific Northwest Ecosystems
2018	University of Washington, ESRM 441: Landscape Ecology
2018	University of Washington, ESRM 201: Sustaining Pacific Northwest Ecosystems
2018	University of Washington, ESRM 300: Sustainability Seminar
2017	University of Washington, ESRM 441: Landscape Ecology

- 2017 University of Washington, ESRM 201: Sustaining Pacific Northwest Ecosystems
- 2016 University of Colorado, Geography 4371: Forest Geography
- 2016 University of Colorado, Ecology and Evolutionary Biology 6100: Science Communication
- 2014 Humboldt State University, Geography 357: Climate, Ecosystems and People
- 2014 University of Wisconsin Madison, Entomology 473: Plant-Insect Interactions
- 2013 University of Wisconsin Madison, Botany 460: General Ecology
- 2012 University of Colorado Boulder, Geography 5241: Forest Dynamics and Disturbance
- 2012 University of Wisconsin Madison, Botany 460: General Ecology
- 2012 University of Wisconsin Madison, Entomology 473: Plant-Insect Interactions
- 2011 University of Wisconsin Madison, Botany 460: General Ecology

## ADVISING, MENTORING, AND TRAINING

Graduate student advisor (Primary advisor)

Current:

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2023 -	Sofia Saenz Kruzska, Environmental & Forest Sciences, University of Washington (MS)
2022 -	Angela G. Liotta, Environmental & Forest Sciences, University of Washington (PhD)
2021 -	Jenna E. Morris, Environmental & Forest Sciences, University of Washington (PhD)
2020 -	Liliana K. Rangel-Parra, Env. & Forest Sciences, University of Washington (PhD)
2020 -	Madison M. Laughlin, Env. & Forest Sciences, University of Washington (PhD)

2019 - **Don C. Radcliffe**, Environmental & Forest Sciences, University of Washington (PhD)

## Completed:

2020 - 2023	Michele S. Buonanduci, Quan. Ecol. & Res. Mgmt., University of Washington (PhD)
2020 - 2022	Liliana K. Rangel-Parra, Env. & Forest Sciences, University of Washington (MS)
2020 - 2022	Madison M. Laughlin, Environmental & Forest Sciences, University of Washington (MS)
2017 - 2022	Michelle C. Agne, Environmental & Forest Sciences, University of Washington (PhD)
2018 - 2020	Jenna E. Morris, Environmental & Forest Sciences, University of Washington (MS)
2018 - 2019	Michele S. Buonanduci, Quan. Ecol. & Res. Mgmt., University of Washington (MS)
2017 - 2019	Saba J. Saberi, Environmental & Forest Sciences, University of Washington (MS)

#### Postdoctoral researchers and/or research scientists trained/supervised

Current:

2024 - Dr. Kristin Braziunas, Research Scientist
2023 - Dr. Michele S. Buonanduci, Postdoctoral Researcher, co w/ Ailene K. Ettinger (TNC)

## Former:

2022 - 2023	Sofia Saenz Kruszka, Assistant Research Scientist, University of Washington-SEFS
2019 - 2020	Madison M. Laughlin, Assistant Research Scientist, University of Washington-SEFS

## Graduate student committee member

2023 -	Maria de los Santos, Environmental & Forest Sciences, University of Washington (PhD)
2023 -	Danielle Holt, Environmental & Forest Sciences, University of Washington (PhD)
2023 -	Leticia Santillana, Environmental & Forest Sciences, University of Washington (MS)
2023 -	Christopher Anderson, Department of Biology, University of Washington (PhD)
2022 -	Patrick Murphy, Atmospheric Sciences, University of Washington (PhD)
2022 -	Turtle McCloskey, Environmental & Forest Sciences, University of Washington (MS)
2021 - 2024	Sofi Courtney, Environmental & Forest Sciences, University of Washington (MS)
2021 -	Caden Chamberlain, Environmental & Forest Sciences, University of Washington (PhD)

2017 -	Paulina Llamas, Environmental & Forest Sciences, University of Washington (PhD)
2020 - 2024	Claire Zarakas, Atmospheric Sciences, University of Washington (PhD)
2018 - 2023	Alexander Pane, Environmental & Forest Sciences, University of Washington (PhD)
2019 - 2023	Courtney Bobsin, Environmental & Forest Sciences, University of Washington (PhD)
2018 - 2023	Kavya Pradhan, Department of Biology, University of Washington (PhD)
2017 - 2023	Elizabeth van Wagtendonk, Env. & Forest Sciences, University of Washington (PhD)
2021 - 2023	Cassie Wells Lumbrazo, Civil & Env. Engineering, University of Washington (PhD)
2017 - 2022	Colton Miller, Environmental & Forest Sciences, University of Washington (PhD)
2019 - 2022	Qiaoyun Peng, Atmospheric Sciences, University of Washington (PhD)
2017 - 2021	Stuart I. Graham, Department of Biology, University of Washington (PhD)
2020 - 2021	Lucas Vargas Zeppetello, Atmospheric Sciences, University of Washington (PhD)
2019 - 2021	Elena Becerril Salas, Environmental & Forest Sciences, University of Washington (MS)
2019 - 2021	Jalene Weatherholt, Environmental & Forest Sciences, University of Washington (MS)
2018 - 2020	Vivian Griffey, Environmental & Forest Sciences, University of Washington (MS)
2018 - 2019	Kimberly Ertel, Environmental & Forest Sciences, University of Washington (MS)
2016 - 2019	Robert A. Andrus, Department of Geography, University of Colorado (PhD)
2017 - 2018	Sean A. Jeronimo, Environmental & Forest Sciences, University of Washington (PhD)
2016 - 2018	Jake Betzen, Environmental & Forest Sciences, University of Washington (MS)

## Undergraduate student mentoring

2023 - 2024	Christian Rolfson, University of Washington, SEFS Undergraduate Capstone Project
2023	Royale Williams, UW – Doris Duke Conservation Scholars Program
2022 - 2023	Sienna Patton, University of Washington, SEFS Undergraduate Capstone Project
2022	Mark Elbrecht, University of Washington, SEFS Undergraduate Capstone Project
2021	Margalit Shetreat-Klein, UW – Doris Duke Conservation Scholars Program
2021	Davien Graham, UW – Doris Duke Conservation Scholars Program
2020 - 2021	Madison Stone, University of Washington, SEFS Undergraduate Capstone Project
2020 - 2021	Allison Phillips, University of Washington, SEFS Undergraduate Capstone Project
2019 - 2020	Ashley Hillis, University of Washington, SEFS Undergraduate Capstone Project
2019 - 2020	Michael McNorvell, University of Washington, SEFS Undergraduate Capstone Project
2018 - 2019	Jalene Weatherholt, University of Washington, SEFS Undergraduate Capstone Project
2018 - 2019	Young-Eui Oh, University of Washington, SEFS Undergraduate Capstone Project
2017 - 2018	Luke Semler, University of Washington, SEFS Undergraduate Capstone Project
2017 - 2018	Amber Noble, University of Washington, SEFS Undergraduate Capstone Project
2017	Alexandra Orrego, Georgia State University, UNAVCO RESESS Program
2016	Evelin Flamenco, West Virginia University, NSF REU at University of Colorado
2016	Alexandra Orrego, Georgia State University, UNAVCO RESESS Program
2016	Shala Wallace, Red Rocks Com. Coll., NSF REU – Research Experience for Community
	College Students at University of Colorado
2016	Sara Dickey, University of Colorado, Undergraduate Research Opportunities Program
2016	Ben Shipley, University of Colorado, Undergraduate Research Opportunities Program
2015	Garth Ornelas, University of Colorado, UNAVCO RESESS Program
2015	Ashley Hoffmann, University of Massachusetts, NSF REU at University of Colorado
2014 - 2015	Stephen Kochaver, University of Wisconsin, GIS Certificate Program Capstone Program
2014	Oseghale Ituah, University of Wisconsin, Biology Mentored Research Program
2014	Bridget Gilmore, University of Wisconsin, Biology Mentored Research Program
2013	Katelyn Budke, University of Wisconsin, Biology Mentored Research Program
2013	Sarah Winter, University of Wisconsin, Biology Mentored Research Program
2013	Stephen Kochaver, University of Wisconsin, Biology Major Senior Capstone Project

- 2012 Kailey Burckhard, University of Wisconsin, Biology Mentored Research Program
- 2012 Adam Winegarden, University of Wisconsin, Biology Mentored Research Program
- 2012 Zachary Osterholz, University of Wisconsin, Biology Mentored Research Program
- 2012 **Brooke Weiland**, University of Wisconsin, Independent Research Credits
- 2012 **Thomas Butusov**, University of Wisconsin, Independent Research Credits
- 2011 Stephen Kochaver, University of Wisconsin, Biology Mentored Research Program

## SELECTED MEDIA COVERAGE

- 2024 Not too wet to burn: Amid an uptick in wildfires, scientists search for lessons on how to save old-growth rainforests from a fiery future, *Hakai Magazine* (Feature Story), by Madeline Ostrander (link) 2024 Even the wetter forests of WA could see more wildfire, study shows, *Seattle Times*, by Isabella Breda (link) 2023 Washington Climate Crisis, Northwest Now on PBS (KCTS 9), hosted by Tom Layson (link) 2023 Are wildfires really getting worse? A Q&A with Brian Harvey, UW College of the Environment News, by Will Shenton (link) 2023 How global warming and a wet winter may impact the US wildfire season, NBC News, by Evan Bush (link) 2023 As climate warms, overlapping wildfires are changing forest resilience, UW College of the Environment News, by Will Shenton (link) 2022 Bolt Creek Fire has burned up to 8,000 acres, and many aren't evacuating, KUOW (NPR affiliate), by Kim Malcom and John Ryan (link) Fire activity expected on both sides of the Cascades this summer, King 5 (NBC affiliate) 2022 Seattle News (link) Scorched Earth: Why Washington wildfires are getting bigger, King 5 (NBC affiliate) 2021 Seattle News 1-hr special, by Glenn Farley (link) 'Megafire' declared near Mount Rainier after exceeding 100,000 acres, King 5 (NBC 2021 affiliate) Seattle News (link) 2021 Fighting fires in western Washington requires different approaches. Crosscut (link) 2021 Wildfires could become more common in western Washington; How will forests handle it? NBC NEWS (King 5 – Seattle), news segment by Glenn Farley (link) 2021 Heat wave sparks historically unseasonable wildfires in West, THE HILL, by Zack Budryk (link) 2021 States of Emergency: Wildfire threat. Facebook live video panel interview, ABC NEWS (KOMO-Seattle), hosted by Abby Acone (link) How climate change affects wildfires, like those in the west, and makes them worse. ABC 2020 *NEWS*, by Julia Jacobo (link) 2020 As wildfires continue in western United States, biologists fear for vulnerable species. SCIENCE, 370 (6512): 18-19, by Elizabeth Pennisi (link) Wildfire West. ABC NEWS Start Here podcast (link) 2020 Jerry Franklin and Brian Harvey: Plotting the next generation of forest research. UW 2020 *College of the Environment News*, by Dave Berndtson (link) 2020 Humble Greenwater big on wildfire preparedness. The News Tribune, by Matt Driscoll
- (<u>link</u>)
   Wildfires west of the Cascades: Rare, but large and severe. UW News, by Kiyomi Taguchi (link)

2019	Wildfires are the new PNW summer norm – and they're impacting our health. <i>Right as</i>
2019	What does the 2019 fire season look like for Washington? UW Experts weigh in. UW College of the Environment News, by John Meyer (link)
2018	In a changing climate, will fire make a bigger run in Western Washington forests? <i>Seattle</i>
2017	Fire on the Mountain: Two Forests Offer Clues to Yellowstone's Fate in a Warming World <i>New York Times</i> by Michael Price (link)
2017	RAPID Response: Brian Harvey to Study Re-Burned Yellowstone Forests. <i>The Straight</i> <i>Grain (Featured on UW Today)</i> by Karl Wirsing (link)
2016	Climate change impacts forests after wildfires: Fire and drought slows forest recovery. CHANNEL 7 (ABC – DENVER) NEWS television interview with Kristen Skovira (link)
2016	Fires, drought, in changing climate affecting high-altitude forests. UNIVERSITY OF COLORADO NEWS, by Jim Scott (link) * story picked up by 13+ outlets
2016	Drought alters recovery of Rocky Mountain forests after fire. UNIVERSITY OF WISCONSIN-MADISON NEWS by Kelly Tyrell (link) * story picked up by 11+ outlets
2016	Bark beetles, wildfires, and our forests: 5 Questions for Dr. Brian J. Harvey. HUFFINGTON POST by Tim Ward (link)
2016	Policymakers must prepare for larger blazes <i>GREENWIRE</i> by Scott Streater (link)
2015	More frequent wildfires How On Farth: The KGNU Science Show radio interview (link)
2013	Don't blame the beetles. SCIENCE 346(6206): 154-156, by Cally Carswell (link)
2014	Study: Bark beetles not a wildfire bugaboo USA TODAY by Doyle Rice (link)
2014	Mountain pine beetles get a bad rap for wildfires, study says. UNIVERSITY OF WISCONSIN-MADISON NEWS, by Kelly Tyrell (link); *also printed in SCIENCE DAILY
	( <u>link</u> ), SCIENCE BLOG ( <u>link</u> ), ENVIRONMENTAL RESEARCH WEB ( <u>link</u> ), EUREKALERT (link), SCIENCE CODEX (link)
2014	Fire severity not linked to beetle kill, study finds. <i>WYOMING PUBLIC RADIO</i> , by Stephanie Joyce (link)
2014	Bark beetles have little impact on burn severity – study. ENERGY & ENVIRONMENT NEWS PM by Phil Taylor (link)
2014	Study: Pine beetle outbreaks not a big factor in the ecological severity of Western Wildfires. <i>SUMMIT COUNTY CITIZENS VOICE</i> , by Bob Berwyn (link)
2014	Graduate Research Innovation Awards encourage young scientists to ask bold questions. FIRE SCIENCE DIGEST, by Gail Wells (link)
2014	Why do you do what you do? <i>COMPASSBLOGS: Answering the "So what?" in science</i>
2014	Finding common ground on fire science. COMPASSBLOGS: Answering the "So what?" in science communication by Karen McLeod (link)
2014	Burning down communication barriers among fire scientists. <i>COMPASSBLOGS:</i> <i>Answaring the "So what?" in science communication</i> by Karen McLeod (link)
2012	Interns helping National Park Service study climate change at Lassen National Park and in Rocky Mountain Forests NATIONAL PARKS TRAVELER by staff writer (link)
2012	Youth engaging in climate change across the Service. <i>CLIMATE CHANGE RESPONSE</i> <i>PROGRAM NEWS</i> , by Tim Watkins (link)

## ADDITIONAL PROFESSIONAL ACTIVITIES, CONTRIBUTIONS, AND TRAINING

2023 Special session organizer (two sessions), *Annual Meeting of the Ecological Society of America*, Portland, OR.

2023 - 2024	Contributing author, USGS State of Knowledge Synthesis: Climate Change Effects on
	Pacific Northwest Ecosystems
2023	Co-organizer and presenter, Town Hall Meeting on Wildfire in the Western US, organized
	by the Gordon and Betty Moore Foundation, UCLA, Los Angeles, CA.
2021	NSF Innovation Lab: Wildfire and the Biosphere, virtual meeting, invited participant
2020	Speak Out Summer Institute for building equity and social justice education to create
	inclusive learning environments on campus and online, virtual meeting
2019	National Ecological Observatory Network (NEON) Science Summit, Boulder, CO
2017	Group Facilitation Training. Smith Fellows Retreat, Detroit, MI
2016	Leadership awareness, skills, and practices, Smith Fellows Retreat, Raquette Lake, NY
2016	Invited participant, Equity and Inclusion for the Society for Conservation Biology,
	American Museum of Natural History, New York, NY.
2016	Organizer, Diversity in Ecological Science Workshop, Smith Fellows Retreat, Boulder, CO
2015	Invited participant, Ecological Drought Workshop – Impacts, resistance, and recovery,
	North Central Climate Science Center, USGS Science Center, Fort Collins, CO
2015	Storytelling in scientific communication, workshop, Smith Fellows Retreat, Cedar City, UT
2015	COMPASS policy training participant, The Science of Wildfire: Navigating a path to
	engagement with policymakers, The Nature Conservancy, Boulder, CO
2015	Research Database Coordinator, Northern Rockies Fire Science Network
2014	NSF Research Coordination Network Workshop, Novus II: Biogeochemical Interactions
	with Disturbance Events, Rocky Mountain National Park, CO
2014	COMPASS media training participant, The Science of Wildfire: Advanced Communication
	Workshop, Greenfire Campus, Seattle, WA
2014	Structural Equation Modeling Workshop, led by Dr. James Grace (USGS), Madison, WI
2009	GIS Database Developer, San Francisco Weed Management Area, San Francisco, CA
2009	Fire History Sub-Group, 19 <sup>th</sup> Annual North American Dendroecological Fieldweek,
	Hampshire College, MA
2006 - 2008	Environmental Scientist, Ninyo and Moore Environmental Consultants, Oakland, CA
2006	Project Manager – Resource Optimization, SkyWest Airlines, San Francisco, CA
2003	GIS Technician, Santa Barbara County Surveyors Office, Santa Barbara, CA
2001	Field Technician, Canadian Corridor Wolf Recovery Project, Kalispell, MT

#### PROFESSIONAL AND DEPARTMENTAL SERVICE

Manuscript reviewer (average 10-12 reviews per year) for: BioScience, Canadian Geographer, Canadian Journal of Forest Research, Ecology, Ecological Applications, Ecology and Evolution, Ecology Letters, EcoScience, Ecosphere, Fire Ecology, Forest Ecology and Management, Forests, Geografiska Annaler (Series A, Physical Geography), Global Change Biology, Global Ecology and Biogeography, International Journal of Wildland Fire, Journal of Applied Ecology, Journal of Ecology, Journal of Vegetation Science, Nature – Scientific Reports, Northwest Science, Oecologia, Plant Ecology, Physical Geography, PLoS One, Proceedings of the National Academy of Sciences, Regional Environmental Change, Scandinavian Journal of Forest Research.

Seattle City Light Wildfire Risk Reduction Strategy – expert reviewer (2023)

Lead guest editor at *Plant Ecology* for special issue on fire-climate interactions (2021 – 2022)

King County (WA) Wildfire Risk Reduction Strategy – Forest Health Working Group (2021 – current)

Co-organizer, UW-SEFS Departmental Seminar Series (2023 - current)

Committee member, UW College of the Environment Diversity, Equity, and Inclusion Task Force (2021-2022)

Committee member, UW-SEFS Pack Forest Management Planning Committee (2023 - current)

Pre-tenure faculty mentor, UW-SEFS (2023 - current)

- Committee member, USFS Rocky Mountain Research Station Missoula Fire Sciences Laboratory hiring committee for Landscape Fire ecologist (GS-12) (2022 2023)
- Committee member, UW-SEFS faculty cluster hire for three positions in climate adaptation science (2021-2022)
- Co-Chair, UW-SEFS Diversity Equity Inclusion Committee (2019-2021)
- Committee member, UW-SEFS Diversity Equity Inclusion Committee (2017- current)
- Committee member, UW-SEFS Curriculum Committee (2022- current)
- Committee member / UW-SEFS Representative, Wind River (Experimental Forest & NEON) Operations Committee (2018- current)
- Committee member, UW-QERM Admissions Committee (2019)
- Fellowship Review panelist, David H. Smith Conservation Research Fellowship (2021)
- Fellowship Review panelist, David H. Smith Conservation Research Fellowship (2020)
- Grant review panelist, National Science Foundation, Division of Environmental Biology (2024)
- Grant reviewer, National Science Foundation, Division of Environmental Biology (2021)
- Grant reviewer, National Science Foundation, Division of Environmental Biology (2019)
- Grant reviewer, National Science Foundation, Office of Integrative Activities (2019)
- Grant reviewer, National Science Foundation, Division of Environmental Biology (2018)
- Grant review panelist, Joint Fire Science Program (2018)
- Grant review panelist, Austrian Academy of Sciences (2018)
- Grant review panelist, University of Washington Royalty Research Fund (RRF) (2018, 2020)
- Invited guest speaker, *Opportunities and strategies for securing ecology student funding*, Annual meeting, Ecological Society of America, Baltimore, MD (2015)
- Grant review panelist, Joint Fire Science Program (2014)
- President/Founder, University of Wisconsin Chapter, Student Association for Fire Ecology (2013- 2015) President, Graduate Student Organization, Dept. of Zoology, University of Wisconsin (2013-2014)

Graduate student representative, Ecology Course Coordinator Hiring Committee, Dept. of Botany, University of Wisconsin (2013)

Representative, Graduate Student Organization, Dept. of Zoology, University of Wisconsin (2010-2013)

#### **PROFESSIONAL MEMBERSHIPS**

Ecological Society of America (ESA); Society for Conservation Biology (SCB) – Honorary Lifetime Member; U.S. International Association for Landscape Ecology (US-IALE); Association for Fire Ecology (AFE).