Larissa L. Yocom

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EDUCATION

Ph.D., 2011, Forest Ecology. Northern Arizona University School of Forestry. **M.E.Sc.**, 2006, Environmental Science. Yale School of Forestry & Environmental Studies. **B.A.**, 1999, Public Policy Analysis/Biology. Pomona College.

PROFESSIONAL EXPERIENCE

2017 – present	Assistant Professor, Department of Wildland Resources, Utah State
	University
2016 - 2017	Research Associate and Postdoctoral Scholar, School of Informatics,
	Computing, and Cyber Systems, Northern Arizona University
2012 - 2017	Research Associate & Instructor, School of Forestry, Northern Arizona
	University
2011 – 2012	Lecturer, School of Forestry, Northern Arizona University

PUBLICATIONS

Underlined = Graduate student advisee

- * = Graduate student or post-doc in another lab
- ** = Undergraduate student

Manuscripts accepted, in revision, or in review

Davis, K.T., [+ 59 authors], **L.L. Yocom**. *Accepted*. 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.

Dye, A.W., P. Gao, J.B. Kim, T. Lei, K.L. Riley, and **L. Yocom**. *In revision*. High-resolution wildfire simulations reveal complexity of climate change impacts on projected burn probability for Southern California. Fire Ecology.

Peer-reviewed journal articles

38. Nesbit, K.A., L.L. Yocom, A.M. Trudgeon*, R.J. DeRose, and P.C. Rogers. 2023. Tamm review: Quaking aspen's influence on fire occurrence, behavior, and severity. Forest Ecology & Management 531: 120752. https://doi.org/10.1016/j.foreco.2022.120752

- 37. Wall, S.*, B.P. Murphy, P. Belmont, and **L. Yocom**. 2023. Predicting post-fire debris flow grain sizes and depositional volumes in the Intermountain West, USA. Earth Surface Processes and Landforms 48(1): 179-197. https://doi.org/10.1002/esp.5480
- 36. **Yocom, L.L.**, J. Jenness, P.Z. Fulé, A.E. Thode. 2022. Fire severity in reburns depends on vegetation type in Arizona and New Mexico, U.S.A. Forests 13: 1957. https://doi.org/10.3390/f13111957
- 35. <u>Howe, A.</u>, S.A. Parks, B.J. Harvey, S.J. Saberi, J.A. Lutz, and **L.L. Yocom**. 2022. Comparing Sentinel-2 and Landsat 8 for burn severity mapping in western North America. Remote Sensing 14(20): 5249. https://doi.org/10.3390/rs14205249
- 34. Margolis, E.Q., C.H. Guiterman, [+ 46 authors], **L.L Yocom**, [+ 38 authors]. 2022. The North American tree-ring fire-scar network. Ecosphere 13(7): e4159. https://doi.org/10.1002/ecs2.4159
- 33. **Yocom, L.L.**, K. Ogle, D. Peltier*, P. Szejner, Y. Liu, and R. K. Monson. 2022. Tree growth sensitivity to climate varies across a seasonal precipitation gradient. Oecologia 198: 933-946. https://doi.org/10.1007/s00442-022-05156-1
- 32. Peltier, D.M.P.*, J. Guo*, P. Nguyen**, M. Bangs**, L. Gear**, M. Wilson, S. Jeffreys, K. Samuels-Crow, **L.L. Yocom**, Y. Liu*, M.K. Fell, D. Auty, C. Schwalm, W.R.L. Anderegg, G.W. Koch, M.E. Litvak, and K. Ogle. 2022. Temperature memory and non-structural carbohydrates mediate legacies of a hot drought in trees across the southwestern USA. Tree Physiology 42: 71-85. https://doi.org/10.1093/treephys/tpab091
- 31. Stevens J.T., C.M. Haffey, J.D. Coop, P.J. Fornwalt, **L. Yocom**, C.D. Allen, A. Bradley, O.T. Burney, D. Carril, M.E. Chambers, T.B. Chapman, S.L. Haire, M.D. Hurteau, J.M. Iniguez, E.Q. Margolis, C. Marks, L.A.E. Marshall, K.C. Rodman, C.S. Stevens-Rumann, A.E. Thode, J.J. Walker. 2021. Tamm Review: Postfire landscape management in frequent-fire conifer forests of the southwestern United States. Forest Ecology and Management 502: 119678. https://doi.org/10.1016/j.foreco.2021.119678
- 30. <u>Kreider, M.</u> and **L.L. Yocom**. 2021. Low-density aspen seedling establishment is widespread following recent wildfires in the western U.S. Ecology 102: e03436. https://doi.org/10.1002/ecy.3436
- 29. Prichard, S., P. Hessburg, R.K. Hagmann, N.A. Povak, D. S.Z. Dobrowski, M.D. Hurteau, V.R. Kane, R.E. Keane, L.N. Kobziar, C.A. Kolden, M. North, S.A. Parks, H.D. Safford, J.T. Stevens, L.L. Yocom, D.J. Churchill, R.W. Gray, D.W. Huffman, F.K. Lake, and P. Khatri-Chhetri. 2021. Adapting Western North American forests to climate change and wildfires: Ten misconceptions. Ecological Applications e02433. https://doi.org/10.1002/eap.2433
- 28. Hagmann, K., P.F. Hessburg, S.J. Prichard, N.A. Povak, P.M. Brown, P.Z. Fulé, R.E. Keane, E.E. Knapp, J.M. Lydersen, K.L. Metlen, J.J. Reilly, A.J. Sánchez Meador, S.L. Stephens, J.T.

- Stevens, A.H. Taylor, **L.L. Yocom**, [+ 14 authors]. 2021. Evidence for widespread changes in the structure, composition, and fire regimes of Western North American forests. Ecological Applications e02431. https://doi.org/10.1002/eap.2431
- 27. <u>Kreider, M.R.</u> and **L.L. Yocom**. 2021. Aspen seedling establishment, survival, and growth following a high-severity wildfire. Forest Ecology and Management 493: 119248. https://doi.org/10.1016/j.foreco.2021.119248
- 26. Lutz, J., S. Struckman*, T.J. Furniss*, J.D. Birch*, L.L. Yocom, D.J. McAvoy. 2021. Large-diameter trees, snags and deadwood in southern Utah, USA. Ecological Processes 10: 9. https://doi.org/10.1186/s13717-020-00275-0
- 25. Dupéy Larsen, L.N.*, P. Howe, M. Brunson, **L. Yocom**, D. McAvoy, E. H. Berry, and J. Smith. 2021. Risk perceptions and mitigation behaviors of residents following a near-miss wildfire. Landscape and Urban Planning 207:103005. https://doi.org/10.1016/j.landurbplan.2020.104005
- 24. Gray, C.A., C. Toone, M.J. Jenkins, S.E. Null, and **L.L. Yocom**. 2021. Spatial and temporal fuels changes in whitebark pine (*Pinus albicaulis*) from mountain pine beetle (*Dendroctonus ponderosae*). Forest Ecology and Management 482: 118789. https://doi.org/10.1016/j.foreco.2020.118789
- 23. Peltier, D.M.P.*, J. Guo*, P. Nguyen**, M. Bangs**, L. Gear**, M. Wilson, S. Jeffreys, K. Samuels-Crow, **L.L. Yocom**, [+ 9 authors]. 2021. Temporal controls on crown non-structural carbohydrates and links to sapwood storage in southwestern US tree species. Tree Physiology 41: 388:402. https://doi.org/10.1093/treephys/tpaa149
- 22. Chikamoto, Y., S.-Y.S. Wang, M. Yost, **L. Yocom** and R.R. Gillies. 2020. Colorado River water supply is predictable on multi-year timescales owing to long-term ocean memory. Communications Earth & Environment 1:26. https://doi.org/10.1038/s43247-020-00027-0
- 21. Lutz, J.A., S. Struckman*, T.J. Furniss*, C.A. Cansler, S.J. Germain*, **L.L. Yocom**, D.J. McAvoy, C.A. Kolden, A.M.S. Smith, M.E. Swanson, and A.J. Larson. 2020. Large-diameter trees dominate snag and surface biomass following reintroduced fire. Ecological Processes 9:41. https://doi.org/10.1186/s13717-020-00243-8
- 20. <u>Kreider, M.R.</u>, K.E. Mock, and **L.L. Yocom**. 2020. Methods for distinguishing aspen seedlings from suckers in the field. Journal of Forestry 118:561–568. https://doi.org/10.1093/jofore/fvaa030
- 19. Ireland, K.B., M.M. Moore, P.Z. Fulé, **L.L. Yocom**, and T.J. Zegler. 2020. Warm, dry conditions inhibit aspen growth, but tree growth and size predict mortality risk in the southwestern United States. Canadian Journal of Forest Research 50:1206-1214. https://doi.org/10.1139/cjfr-2019-0222

- 18. Mueller, S.E.*, A.E. Thode, E.Q. Margolis, **L.L. Yocom**, J. Young*, and J. Iniguez. 2020. Climate relationships with increasing wildfire in the southwestern US from 1984 to 2015. Forest Ecology and Management 460: 117861. https://doi.org/10.1016/j.foreco.2019.117861
- 17. **Yocom, L.L.**, J. Jenness, P.Z. Fulé, and A.E. Thode. 2019. Previous fires and roads limit wildfire growth in Arizona and New Mexico, U.S.A. Forest Ecology and Management 449: 117440. https://doi.org/10.1016/j.foreco.2019.06.037
- 16. Murphy, B.P.*, **L.L. Yocom**, and P. Belmont. 2018. Beyond the 1984 perspective: narrow focus on modern wildfire trends underestimates future risks to water security. Earth's Future 6: 1492-1497. https://doi.org/10.1029/2018EF001006

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- 15. **Yocom Kent, L.L.**, P.Z. Fulé, P.M. Brown, J. Cerano, E. Cornejo-Oviedo, C. Cortés Montaño, S.A. Drury, D.A. Falk, J. Meunier, H.M. Poulos, C.N. Skinner, S.L. Stephens, J. Villanueva-Díaz. 2017. Climate drives fire synchrony but local factors control fire regime change in northern Mexico. Ecosphere 8(3): Article e01709. https://doi.org/10.1002/ecs2.1709
- 14. Kalies, E.L. and **L.L. Yocom Kent**. 2016. Tamm Review: Are fuel treatments effective at achieving ecological and social objectives? A systematic review. Forest Ecology and Management 375: 84-95. https://doi.org/10.1016/j.foreco.2016.05.021
- 13. **Yocom Kent, L.L.**, P.Z. Fulé, W.A. Bunn, and E.G. Gdula. 2015. Historical high-severity fire patches in mixed-conifer forests. Canadian Journal of Forest Research 45(11): 1587-1596. https://doi.org/10.1139/cjfr-2015-0128
- 12. **Yocom Kent, L.L.**, and P.Z. Fulé. 2015. Do rules of thumb measure up? Characteristics of fire-scarred trees and samples. Tree-Ring Research 71(2): 78-82. https://doi.org/10.3959/1536-1098-71.2.78
- 11. **Yocom Kent, L.L.**, K.L. Shive, C.H. Sieg, M.E. Hunter, C. Stevens-Rumann, and P.Z. Fulé. 2015. Interactions of fuel treatments, wildfire severity, and carbon dynamics. Forest Ecology & Management 349: 66-72. https://doi.org/10.1016/j.foreco.2015.04.004
- 10. Villanueva Díaz, J., J. Cerano Paredes, P.Z. Fulé, C. Cortés Montaño, L. Vásquez Selem, **L.L. Yocom**, and J.A. Ruiz-Corral. 2015. [Translation from Spanish]: Four centuries of reconstructed hydroclimatic variability for Northwestern Chihuahua, Mexico, based on tree rings. Investigaciones Geográficas, Boletín del Instituto de Geografia 87: 141-153. https://doi.org/10.14350/rig.44485
- 9. Cerano-Paredes, J., J. Villanueva-Díaz, R. Cervantes-Martínez, P. Fulé, **L. Yocom**, G. Esquivel-Arriaga, and E. Jardel-Peláez. 2015. [Translation from Spanish]: Fire history in a pine forest in Sierra de Manantlán, Jalisco, Mexico. Bosque 36(1): 41-52. http://dx.doi.org/10.4067/S0717-92002015000100005

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- 8. Villanueva-Díaz, J., J. Cerano-Paredes, L. Vázquez-Selem, D.W. Stahle, P.Z. Fulé, **L.L. Yocom**, O. Franco-Ramos, J.A. Ruiz Corral. 2015. [Translation from Spanish]: Dendrochronological network of mountain pine (Pinus hartwegii Lindl.) for dendroclimatic studies in northeastern and central Mexico. Investigaciones Geográficas, Boletín del Instituto de Geografía 86: 5-14. https://doi.org/10.14350/rig.42003
- 7. **Yocom, L.L.**, P.Z. Fulé, D.A. Falk, E. Cornejo-Oviedo, P.M. Brown, J. Villanueva Díaz, J. Cerano, C. Cortés Montaño. 2014. Fine-scale factors influence fire regimes in mixed-conifer forests on three high mountains in Mexico. International Journal of Wildland Fire 23: 959-968. https://doi.org/10.1071/WF13214
- 6. Irby, C.M.**, P.Z. Fulé, **L.L. Yocom**, J. Villanueva Díaz. 2013. Dendrochronological reconstruction of long-term precipitation patterns in Basaseachi National Park, Chihuahua, Mexico. Madera y Bosques 19(1):93-105.
- 5. **Yocom, L.L.**, and P.Z. Fulé. 2012. Human and climate influences on frequent fire in a high-elevation tropical forest. Journal of Applied Ecology 49(6):1356-1364. https://doi.org/10.1111/j.1365-2664.2012.02216.x
- 4. Cortés Montaño, C., P.Z. Fulé, D.A. Falk, J. Villanueva-Díaz, **L.L. Yocom**. 2012. Linking old-growth forest composition, structure, fire history, climate and land-use in the mountains of northern México. Ecosphere 3(11): Article 106. https://doi.org/10.1890/ES12-00161.1
- 3. Fulé, P.Z., **L.L. Yocom**, C. Cortés Montaño, D.A. Falk, J. Cerano, J. Villanueva-Díaz. 2012. Testing a pyroclimatic hypothesis on the Mexico-United States border. Ecology 93(8): 1830-1840. https://doi.org/10.1890/11-1991.1
- 2. **Yocom, L.L.**, P.Z. Fulé, P.M. Brown, J. Cerano, J. Villanueva-Díaz, D.A. Falk, E. Cornejo-Oviedo. 2010. El Niño-Southern Oscillation effect on a fire regime in northeastern Mexico has changed over time. Ecology 91(6): 1660-1671. https://doi.org/10.1890/09-0845.1
- 1. van Dongen, W.F.D., and **L.L. Yocom**. 2005. Breeding biology of a migratory Australian passerine, the golden whistler (Pachycephala pectoralis). Australian Journal of Zoology 53: 213-220. https://doi.org/10.1071/ZO04081

Peer-reviewed book chapters and reports

- 2. Friggens, M., R. Loehman, A. Thode, W. Flatley, A. Evans, W. Bunn, C. Wilcox, S. Mueller*, **L. Yocom**, and D. Falk. 2019. User guide to the FireCLIME Vulnerability Assessment (VA) tool: A rapid and flexible system for assessing ecosystem vulnerability to climate-fire interactions. Gen. Tech. Rep. RMRS-GTR-395. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 42 p.
- 1. Daniels, L.D., **L.L. Yocom Kent**, R.L. Sherriff, and E.K. Heyerdahl. 2017. Deciphering the complexity of historical fire regimes: diversity among forests of western North America. In:

Amoroso, M., L. Daniels, P. Baker, J. Camarero (eds) Dendroecology: Tree-Ring Analyses Applied to Ecological Studies. Ecological Studies series (Analysis and Synthesis), vol. 231. Springer, Cham. https://doi.org/10.1007/978-3-319-61669-8

Articles and outreach publications not peer-reviewed

- 8. **Yocom**, L. 2022. Low wildfire activity puts Utah lands further into fire deficit. Pages 22-23 in 2022 Report to the Governor on Utah's Land, Water, and Air. Utah State University, Logan, UT.
- 7. Lutz, J. A., T. Messmer, E. Thacker, **L. Yocom**, B. Chamberlain, and D. Hirshfeld. 2021. Land. Pages 16-29 in 2021 Report to the Governor on Utah's Land, Water, and Air. Utah State University, Logan, UT.
- 6. Mock, K., and **L. Yocom**. 2018. Aspen seedlings follow Brian Head fire. Western Aspen Alliance Tremblings Newsletter 9:2-3.
- 5. **Yocom Kent, L.L.** 2015. Climate change and fire in the Southwest. Working Papers in Southwestern Ponderosa Pine Forest Restoration #34. Published by Southwest Fire Science Consortium and Ecological Restoration Institute. Flagstaff, AZ.
- 4. **Yocom Kent, L.L.** 2014. An evaluation of fire regime reconstruction methods. Working Papers in Southwestern Ponderosa Pine Forest Restoration #32. Published by Southwest Fire Science Consortium and Ecological Restoration Institute. Flagstaff, AZ.
- 3. **Yocom, L.L.** 2013. Fuel treatment longevity: a summary of the science. Working Papers in Southwestern Ponderosa Pine Forest Restoration #27. Published by Southwest Fire Science Consortium and Ecological Restoration Institute. Flagstaff, AZ.
- 2. Falk, D.A., E.K. Heyerdahl, P.M. Brown, T.W. Swetnam, E.K. Sutherland, Z. Gedalof, L. **Yocom**, T.J. Brown. 2010. Fire and climate variation in western North America from fire-scar and tree-ring networks. PAGES news 18:70-72.
- 1. Cerano Paredes, J., J. Villanueva Díaz, P.Z. Fulé, P.M. Brown, **L.L. Yocom**, V. Constante García, J. Estrada Ávalos. 2009. Interpretación del historial de incendios en bosques mixtos de coníferas. Folleto Técnico 15. CENID-RASPA, Gómez Palacio, Mexico.

DATA CONTRIBUTIONS

Yocom, L.L. and P.Z. Fulé. Fire data from Sierra Madre Oriental, Nuevo León, Mexico: El Diferencial - IMPD MXDI-001. https://www.ncdc.noaa.gov/paleo/study/21570 Mesa Acuña - IMPD MXMA-001. https://www.ncdc.noaa.gov/paleo/study/21571 San Onofre - IMPD MXOZ6001. https://www.ncdc.noaa.gov/paleo/study/21587

Yocom, L.L. and P.Z. Fulé. Fire data from Sierra Madre Oriental, Coahuila, Mexico: La Armenia - IMPD MXLA-001. https://www.ncdc.noaa.gov/paleo/study/21572

Las Bateas 2- IMPD MXLB-001. https://www.ncdc.noaa.gov/paleo/study/21573 Las Manzanas - IMPD MXLM-001. https://www.ncdc.noaa.gov/paleo/study/21574 La Viga - IMPD MXLV-001. https://www.ncdc.noaa.gov/paleo/study/21575 Musgoso - IMPD MXMU-001. https://www.ncdc.noaa.gov/paleo/study/21576 Paraíso - IMPD MXPA-001. https://www.ncdc.noaa.gov/paleo/study/21577 Rancho Nuevo - IMPD MXRN-001. https://www.ncdc.noaa.gov/paleo/study/21578 Puerto el Tarillal - IMPD MXPU-001. https://www.ncdc.noaa.gov/paleo/study/21579 El Tarillal - IMPD MXET-001. https://www.ncdc.noaa.gov/paleo/study/21580

Yocom, L.L. and P.Z. Fulé. Fire data from eastern Transvolcanic Belt, Puebla, Mexico:

Orizaba 1- IMPD MXOZ1001. https://www.ncdc.noaa.gov/paleo/study/21581

Orizaba 2- IMPD MXOZ2001. https://www.ncdc.noaa.gov/paleo/study/21582

Orizaba 3- IMPD MXOZ3001. https://www.ncdc.noaa.gov/paleo/study/21583

Orizaba 4- IMPD MXOZ4001. https://www.ncdc.noaa.gov/paleo/study/21584

Orizaba 5- IMPD MXOZ5001. https://www.ncdc.noaa.gov/paleo/study/21585

Orizaba 6- IMPD MXOZ6001. https://www.ncdc.noaa.gov/paleo/study/21586

PRESENTATIONS

- * = Graduate student or post-doc
- ** = Undergraduate student

Invited presentations

Yocom, L.L. Oct. 25, 2022. Seminar: Wildfire: an Ecological Process and a Management Problem. Westminster College Science Seminar Series. Salt Lake City, UT.

Yocom, L.L. March 16, 2022. Plenary talk: Fire ecology in Utah. Utah chapter of The Wildlife Society 2022 Annual Meeting. (Presented remotely).

Yocom, L. September 23, 2021. Wildfire: Avoiding human-wildfire conflict. Utah Association for Counties, Salt Lake City, UT.

Yocom, L.L. Nov. 26, 2019. Fuel Treatment Effectiveness in Utah. Utah CatFire Steering Committee Meeting, Salt Lake City, UT. (Presented remotely).

Yocom, L.L. Apr. 3, 2019. Presentation on current research. Climate Adaptation Science and the Ecology Center: Interdisciplinary Research Forum, Logan, UT.

Yocom, L.L. Feb. 6, 2019. New Research: Fuel Treatment Effectiveness in Utah. Utah All Lands-All Hands Summit, Salt Lake City, UT.

Yocom, L.L. Nov. 2, 2018. From fuel treatments to post-fire trajectories: New fire research in Utah. Utah Section, Society for Range Management 2018 Annual Meeting, Midway, UT.

Yocom, L.L. Oct. 18, 2018. Research on planned fuels treatment effectiveness research at the Utah BLM Prescribed Fire and Fuels Workshop, Logan, UT.

Yocom, L.L. Sept. 18, 2018. Fire in Utah. Presentation to the Natural Resources Coordinating Council, Logan, UT.

Yocom, L.L. June 7, 2018. Post-fire research, Brianhead Fire. Presentation at Intermountain Society of American Foresters Chapter Meeting, Cedar City, UT.

Yocom, L.L., A. Azpeleta Tarancón, J. Cerano Paredes, P.Z. Fulé, M. González Tagle, H.M. Poulos, and S.L. Stephens. May 22, 2018. Fire refugia in forests of Mexico: what do we know? Presentation in special session at the Fire Continuum Conference, Missoula, MT.

Yocom, L.L. Apr. 6, 2018. Keynote presentation, Intermountain Society of American Foresters Annual Spring Meeting, Logan, UT.

Yocom, L.L. Jan. 9, 2018. Research seminar at the Brown-Bag Luncheon Series, Utah Division of Wildlife Resources, Salt Lake City, UT.

Yocom, L.L. Oct. 19, 2017. Research presentation at the Utah BLM Prescribed Fire and Fuels Workshop, Logan, UT.

PRIOR

Yocom, L.L. Sept. 20, 2015. Fire Science and Art Series: public presentation at Coconino Center for the Arts as part of Flagstaff Festival of Science and Fires of Change art exhibition.

Yocom, L.L. Aug. 26, 2015. Climate change and fire in the Southwest. Webinar for scientists and managers, Southwest Fire Science Consortium.

Yocom, L.L., P.Z. Fulé, W.A. Bunn, E. Gdula. April 15, 2014. Fire history in mixed-conifer forest: Grand Canyon North Rim. Presentation to scientists and managers at Grand Canyon National Park, Grand Canyon, AZ.

Yocom, L.L. April 20, 2010. Clima e incendios. Public seminar, Ciudad Serdán, Puebla, Mexico.

Yocom, L.L. Nov. 10, 2009. El clima e incendios forestales en el norte de México. Public seminar, Universidad de Guadalajara, Mexico.

Yocom, L.L. Apr. 21, 2009. El clima, cambio climático, e incendios forestales en el norte de México. Public seminar, Universidad Autónoma Chapingo, Mexico.

Yocom, L.L. Dec. 3, 2008. Fires in northern Mexico: top-down or bottom-up control? School of Forestry Seminar Series, Flagstaff, AZ.

Yocom, L.L., P.Z. Fulé, P.M. Brown, D.A. Falk, J. Villanueva-Díaz, E. Cornejo-Oviedo. Feb. 25, 2008. Fire-climate interactions in Northern Mexico. Special colloquium, University of Arizona, Tucson, AZ.

Contributed presentations

Klimas, K.*, Yocom, L.L. 2022. Predicting burn severity: modeling fire effects in Intermountain West forests, Utah, USA. Society of American Foresters Annual Convention.

Trudgeon, A.M.*, Yocom, L.L., Nesbit, K.*, DeRose, R.J. 2022. Regeneration of quaking aspen (*Populus tremuloides*) after fire risk reduction treatments. IX International Conference on Forest Fire Research.

Riley, K., C. Hay, J. Kim, P. Gao, A. Dye, L. Yocom, J. Rowe, and E. Kodra. 2022. Methods for handling uncertainty in climate change projections in fire simulation modeling. Fire & Climate conference, International Association of Wildland Fire.

Dye, A., P. Gao, K. Riley, J. Kim, L. Yocom. 2021. Shifts in Southern California simulated burn probability by mid-century under 8 climate change scenarios. 8th International Fire Ecology and Management Congress, Association for Fire Ecology.

Howe, A.*, S. Parks, L. Yocom. 2021. A comparison of Sentinel-2 and Landsat 8 for burn severity mapping in western North American forests. 8th International Fire Ecology and Management Congress, Association for Fire Ecology.

Kim, J., A. Dye, P. Gao, K. Riley, L. Yocom. 2021. Using GCM-based future climate data to drive a fire model: how much bias is too much? 8th International Fire Ecology and Management Congress, Association for Fire Ecology.

Kreider, M.*, L. Yocom. 2021. Aspen seedling establishment is widespread following recent fires in the western U.S. 8th International Fire Ecology and Management Congress, Association for Fire Ecology.

Nesbit, K.*, L. Yocom. 2021. Quantifying fuel characteristics and potential fire behavior along ecological gradients in aspen stands. 8th International Fire Ecology and Management Congress, Association for Fire Ecology.

Washa, B., J. Thompson*, L. Yocom. 2021. Fuel treatment effectiveness in Utah. 8th International Fire Ecology and Management Congress, Association for Fire Ecology.

Chikamoto, Y., S.-Y.S. Wang, M. Yost, L. Yocom and R.R. Gillies. 2021. Multi-year predictability of Colorado River water supply using a drift-free decadal climate prediction system. EGU General Assembly (virtual).

- Kreider, M.*, L. Yocom, K.E. Mock. 2020. Testing assumptions of western aspen seedling establishment. Ecological Society of America Annual Meeting (virtual).
- Thode, A., L. Yocom, J.M. Iniguez, R. Loehman. 2020. Managing for subsequent fires: Considering how re-burns will impact forest regeneration. Ecological Society of America Annual Meeting (virtual).
- Dangerfield, C.*, S. Voelker, L. Yocom. 2020. Impacts of road disturbance on old growth coast redwood forests. Ecological Society of America Annual Meeting (virtual).
- Thompson, J.*, L. Yocom. 2020. Characterizing fuel treatment effectiveness in Utah. Ecological Society of America Annual Meeting (virtual).
- Howe, A.*, L. Yocom. 2020. Wildfire severity in the western US: Quantifying the scale of heterogeneity and sensitivity to imagery resolution. Ecological Society of America Annual Meeting (virtual).
- Yocom, L.L., D. Falk, A. Thode, M. Crimmins, R. Loehman, and W. Flatley. Nov. 21, 2019. Gradients of productivity and flammability drive fire regimes in the Southwest US. Association for Fire Ecology 8th International Fire Ecology and Management Congress, Tucson, AZ.
- Fulé, P.Z., V. Hess, L. Yocom, C. Cortés Montaño. Nov. 20, 2019. Mexican forest species and fire regimes are of increasing relevance to the southwestern US as climate warms. Association for Fire Ecology 8th International Fire Ecology and Management Congress, Tucson, AZ.
- Dye, A., P. Gao, K. Riley, J. Kim, L. Yocom. Nov. 20, 2019. Examining Southern California wildfire using a stochastic large-fire simulation model. Association for Fire Ecology 8th International Fire Ecology and Management Congress, Tucson, AZ.
- Yocom, L., D. Falk, A. Thode, M. Crimmins, R. Loehman, W. Flatley. June 25, 2019. Gradients of productivity and flammability drive fire regimes in the SW US. North American Forest Ecology Workshop, Flagstaff, AZ.
- Mock, K.E., S.L. Landhäusser, O. Burney, L. Yocom. June 25, 2019. The case for restoration with aspen seedlings in post-fire landscapes. North American Forest Ecology Workshop, Flagstaff, AZ.
- Murphy, B.P.*, L.L. Yocom, and P. Belmont. Dec. 11, 2018. Beyond the 1984 perspective: narrow focus on modern wildfire trends underestimates future risks to water security. American Geophysical Union Fall Meeting 2018, Abstract H21F-07.
- Yocom, L.L., J. Jenness, P. Fulé, A. Thode. Dec. 1, 2017. Previous fires influence subsequent fire growth and severity in Arizona and New Mexico. Association for Fire Ecology International Congress, Orlando, FL.

Yocom, L.L., J. Jenness, P. Fulé, A. Thode. Sept. 13, 2017. Previous fires and roads limit wildfire growth in Arizona and New Mexico. Conference of Science and Management on the Colorado Plateau, Flagstaff, AZ. *Presenter.

Yocom Kent, L., K. Ogle, Y. Liu, P. Szejner, R.K. Monson, and D. Peltier. Sept. 13, 2017. Tree growth response to climate varies across a monsoon precipitation gradient. Conference of Science and Management on the Colorado Plateau, Flagstaff, AZ. *Presenter.

Peltier, D.*, J. Guo*, K. Samuels-Crow, L. Yocom-Kent, Y. Liu*, W. Anderegg, M. Fell*, G. Koch, and K. Ogle. Sept. 13, 2017. Differential growth responses of pinyon and juniper during El Niño and La Niña periods. Conference of Science and Management on the Colorado Plateau, Flagstaff, AZ.

Yocom, L.L., K. Ogle, Y. Liu*, P. Szejner*, R.K. Monson, D. Peltier*. Aug. 8, 2017. Tree growth response to climate varies across a monsoon precipitation gradient. Ecological Society of America Annual Meeting, Portland, OR. *Presenter.

USU PRIOR

Yocom, L.L., P.Z. Fulé, W.A. Bunn, E.G. Gdula. Nov. 19, 2015. Historical high-severity fire patches in mixed-conifer forests, Grand Canyon National Park. Association for Fire Ecology International Congress, San Antonio, TX.

Yocom, L.L. Nov. 17, 2015. Wildfire as Fuel Treatment: Effects on Subsequent Fire Size in the Southwest. Association for Fire Ecology International Congress, San Antonio, TX.

Yocom, L.L., P.Z. Fulé, W.A. Bunn, E. Gdula. Sept. 18, 2013. Historical mixed-severity fire in high-elevation conifer forest, Grand Canyon North Rim. Conference of Science and Management on the Colorado Plateau, Flagstaff, AZ.

Yocom, L.L., P.Z. Fulé, W.A. Bunn, E. Gdula. May 14, 2013. Historical mixed-severity fire in high-elevation conifer forest, Grand Canyon North Rim. AmeriDendro Conference, Tucson, AZ.

Yocom, L.L., P.Z. Fulé, D.A. Falk, P.M. Brown, J. Villanueva-Díaz, J. Cerano, E. Cornejo-Oviedo, C. Cortés Montaño. Dec. 4, 2012. Climate and land-use drivers of historical fires in northern Mexico. Association for Fire Ecology International Congress, Portland, OR.

Yocom, L.L., P.Z. Fulé, D.A. Falk, P.M. Brown, J. Villanueva-Díaz, J. Cerano, E. Cornejo-Oviedo, C. Cortés Montaño. Mar. 1, 2012. Climate and land-use drivers of historical fires in northern Mexico. Association for Fire Ecology regional meeting, Santa Fe, NM.

Yocom, L.L., P.Z. Fulé, M. Wagner, R. Sheridan. Oct. 25, 2011. Summer Institute on Environmental Stewardship for European Student Leaders. Conference of Research on the Colorado Plateau, Flagstaff, AZ.

Yocom, L.L., P.Z. Fulé, D.A. Falk, E. Cornejo-Oviedo. Dec. 15, 2011. Fine-scale factors drive variation in fire characteristics in northeastern Mexico. American Geophysical Union Fall Meeting, San Francisco, CA.

Yocom, L.L., P. Z. Fulé, P. M. Brown, J. Cerano, J. Villanueva-Díaz, D. A. Falk, E. Cornejo-Oviedo. Dec. 4, 2009. Effects on El Niño-southern oscillation on fire regime changed over time in northeastern Mexico. Association for Fire Ecology International Congress, Savannah, GA.

Yocom, L.L., P.Z. Fulé, P.M. Brown, J. Cerano, J. Villanueva-Díaz, D.A. Falk, E. Cornejo-Oviedo. Aug. 6, 2009. Effects on El Niño-southern oscillation on fire regime changed over time in northeastern Mexico. Ecological Society of America (ESA) 94th Annual Meeting, Albuquerque, NM.

Yocom, L.L., P.Z. Fulé, P.M. Brown, D.A. Falk, J. Villanueva-Díaz, E. Cornejo-Oviedo. Jan. 30, 2008. Fire-climate interactions in Northern Mexico. Association for Fire Ecology regional meeting, Tucson, AZ.

Posters

Trudgeon, A.M.*, Yocom, L.L., Nesbit, K.*, DeRose, R.J. 2022. Regeneration of quaking aspen (*Populus tremuloides*) after fire risk reduction treatments. Society of American Foresters Annual Convention.

Klimas, K.*, L. Yocom. Dec. 3, 2021. Fuel treatment effects on fuels and modeled fire behavior in high elevation forests, Utah, USA. 8th International Fire Ecology and Management Congress, Association for Fire Ecology. 1st Place, student poster competition.

Boone, R.D., L. Yocom, D. Peltier*, and K. Ogle. Aug. 2-6, 2021. Do differences in climate memory align with which trees live and die during or after a severe drought? Ecological Society of America Annual Meeting (virtual).

Gray, C.A., L.L. Yocom, and R.D. Ramsey. Aug. 3, 2020. Mapping the percentage of aspen in Utah forests using multivariate analysis. Ecological Society of America Annual Meeting (virtual).

Kreider. M.*, L. Yocom, and K. Mock. Nov. 19, 2019. Post-fire aspen seedling survival reduced by competition. Association for Fire Ecology 8th International Fire Ecology and Management Congress, Tucson, AZ. 1st Place, student poster competition.

Howe, A.* and L. Yocom. Nov. 19, 2019. Quantifying the heterogeneity of burn severity. Association for Fire Ecology 8th International Fire Ecology and Management Congress, Tucson, AZ. 3rd Place, student poster competition.

Thompson, J.* and L. Yocom. Nov. 19, 2019. Fuel treatments and wildfire interactions in Utah: Preliminary findings. Association for Fire Ecology 8th International Fire Ecology and Management Congress, Tucson, AZ.

GRANTS

- U.S. Geological Survey. Garfin, G., R. Ambrose, R. Clemesha, E. Fleishman, A. Gershunov, G. MacDonald, K. Mock, B. Udall, and **Yocom, L.L.** Actionable science to understand the effects of recent temperature increases to inform natural resources management in the southwestern United States.
- 2022-2023 John Wesley Powell Center for Analysis and Synthesis. PIs: Margolis, E., C. Guiterman, R. Loehman, and S. Parks. Working group: J. Abatzoglou, L. Daniels, D. Falk, K. Kipfmueller, M. Krawchuk, J. Portier, M. Stambaugh, J. Villanueva-Diaz, E. Whitman, A.P. Williams, and L. Yocom. Synthesis of the new North American tree-ring fire-scar network: Using past and present fire-climate relationships to improve projections of future wildfire.
- 2021-2022 Mountain Regional Water. Yocom, L.L. and P. Belmont. Evaluating fuel treatment efficacy in reducing risk of high-severity fire and downstream impacts in the Rockport Reservoir watershed.
- **2021-2022** Utah Division of Wildlife Resources. Avgar, T. and **L.L. Yocom**. Wildlife spaceuse and post-fire habitat dynamics.
- **2020-2023** Joint Fire Science Program. **Yocom, L.L.**, B.P. Murphy, and P. Belmont. Evaluating fuel treatment efficacy in reducing risk of high-severity fire and downstream impacts.
- 2020-2022 Utah Division of Forestry, Fire and State Lands. Yocom, L.L., J. DeRose, and D. McAvoy. Evaluating aspen regeneration methods for effectiveness and efficiency in Utah.
- 2019-2020 Utah Agricultural Experiment Station Seed Grant Program. Yocom, L.L., J.A. Lutz, K.M. Mock, and D.R. Ramsey. Mapping aspen forests in Utah.
- 2019-2020 Utah BLM, USFS Region 4, Utah FFSL, and Quinney Foundation. Yocom, L.L., J.A. Lutz. Fuel treatment effects on fire outcomes in Utah.
- 2018-2020 Utah Agricultural Experiment Station Seed Grant Program. Lutz, J.A., L.L. Yocom. Evolution of heavy surface fuels following bark beetle outbreaks and fire and their contribution to subsequent risk.
- **2018-2019** Utah Department of Natural Resources. Mock, K.M., **L.L. Yocom**. Restoration on the Brian Head fire using aspen seedlings.
- 2018 Utah Agricultural Experiment Station Equipment Grants Program. Yocom, L.L.

PRIOR

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- Joint Fire Science Program. Thode, A.E., A. Bradley, W. Bunn, Z. Evans, D. Falk, W. Flatley, M. Friggens, P. Fulé, D. Gori, S. Hedwall, R. Keane, R. Loehman, J. Triepke, C. Wilcox, and L. Yocom. Landscape impacts of fire and climate change in the Southwest: A science-management partnership.
- Joint Fire Science Program. **Yocom, L.L.**, A.E. Thode, P.Z. Fulé, J. Iniguez, M. Lata, W. Hall, T. Nicolet. Wildfire effects on subsequent wildfire ignition, severity, and management in the Southwest: applying massive data sets to address management questions.
- 2011-2013 National Park Service Reserve Fund. Fulé, P. Z., L.L. Yocom. Comparing modern and historical high-elevation fire regimes at Grand Canyon.
- 2011 U.S. State Department Bureau of Educational and Cultural Affairs. Fulé, P. Z., M.R. Wagner, L.L. Yocom. Summer Institute on Environmental Stewardship in the American Southwest.
- National Science Foundation. **Yocom, L.L.** Doctoral Dissertation Enhancement Project: Exploring climatic and human drivers of fire regime in a high-elevation Mexican forest.
- Teresa Heinz Scholarship for Environmental Science. **Yocom, L.L.** Bird perching and visitation preference among native planted trees in Panama.
- Tropical Resources Institute. **Yocom, L.L.** Bird perching and visitation preference among native planted trees in Panama.

TEACHING

2022 Quinney College of Natural Resources Teacher of the Year

Courses: Utah State University

- WILD 6900: Fire Ecology, 3 credits, USU, graduate students (Fall 2019)
- WILD 5710: Forest Vegetation Disturbance Ecology & Management, 3 credits, USU, undergraduate/graduate students (Fall 2017, 2018, 2020, 2021, 2022)
- WILD 3100: Introduction to Wildland Fire, 3 credits, USU, undergraduates (Fall 2018, 2019, 2020, 2021, 2022)
- WILD 4960: Directed reading course, 1 credit, Etta Crowley (Fall 2017)
- WILD 4960: Directed reading course, 2 credits, Jonathan Cooper (Fall 2018)

Courses: Northern Arizona University

FOR 382/582: Ecological Restoration Applications, NAU, undergraduate/graduate students (Fall 2013)

- FOR 317: Silviculture and Fire Applications, NAU, professionals (Spring 2013)
- FOR 251: Introduction to Wildland Fire, NAU, undergraduates (Spring & Fall 2011, Spring 2012)
- FOR 449: Fire Modeling & Monitoring, NAU, undergraduates (Spring 2012)
- FOR 351: Fire Modeling and Monitoring for Professionals, NAU, professionals (Fall 2015)
- FOR 450: Fire Ecology for Professionals, NAU, professionals (Spring 2012, 2015)
- FOR 310: Forest Ecology for Professionals, NAU, professionals (Fall 2011, 2015)
- FOR 101: Forestry 101, NAU, undergraduates [forest ecology module, 3 sections] (Fall 2011, 2012)
- FOR 517: Dendroecology: Applied Tree-ring Analysis (co-taught), NAU, graduate students (Fall 2009)

MENTORING AND ADVISING

Graduate Student Advising

Current

Alexander Howe, PhD, 2018 – Present Sarah Kapel, MS (co-advised), 2022 – Present Kipling Klimas, PhD, 2020 – Present Nadav Mouallem, MS, 2022 – Present Megan Whetzel, MS (co-advised), 2021 – Present

Completed

Kristin Nesbit, MS, 2020 – 2022 (successfully defended; thesis approval pending) Jamela Thompson, MS, 2019 – 2022 (successfully defended; thesis approval pending) Mark Kreider, MS, 2018 – 2020 Cody Dangerfield, MS (co-advised), 2019 – 2020

Graduate Student Committees

Current

Meredith Andrus (MLA, 2019 – present, USU Landscape Architecture & Env. Planning)

Erika Blomdahl (PhD, 2021 – present, USU Wildland Resources)

Rory Eggleston (PhD, 2022 – present, USU Wildland Resources)

Brooke Richards (MS, 2023 – present, USU Environment & Society)

Cameron Shaughnessy (MNR, 2020 – present, USU Wildland Resources)

Soren Struckman (PhD, 2022 – present, USU Wildland Resources)

Tyson Terry (PhD, 2020 – present, USU Wildland Resources)

Completed

Allie Trudgeon (MS, 2020 – 2022, USU Wildland Resources)

Alec Arditti (PhD, 2021 – 2022, USU Watershed Sciences)

Jaycee Cappaert (MS, 2021 – 2022, USU Wildland Resources)

April Phinney (MS, 2020 – 2022, USU Geosciences)

Kendall Becker (PhD, 2017 – 2022, USU Wildland Resources)
Devin Macfarlane (MLA, 2021 – 2022, USU Landscape Architecture & Env. Planning)
Mira Ensley-Field (MS, 2020 – 2021, USU Wildland Resources)
Sara Wall (MS, 2020 – 2021, USU Watershed Sciences)
Tucker Furniss (PhD, 2018 – 2021, USU Wildland Resources)
Lauren Dupey (PhD, 2017 – 2020, USU Environment & Society)
Andrew Kennedy (MS, 2019 – 2020, University of Utah)
Natalie Gillard (MS, 2018 – 2019, USU Watershed Sciences)
Stephanie Mueller (MS, 2017 – 2019, Northern Arizona University)
Lisa Dowling (MS, 2013 – 2015, Northern Arizona University)

Undergraduate research mentoring

Emily Lane (2022-2023, USU, awarded Undergraduate Research & Creative Opportunity grant) Emily Lowrimore (2021, USU, awarded Undergraduate Research & Creative Opportunity grant) Allysia Hammond (2021, USU, WILD summer practicum) Elyse Doty (2019, USU, awarded Undergraduate Research & Creative Opportunity grant) Philisha Clah (2013, NAU)