

Chris Guiterman

Laboratory of Tree-Ring Research, University of Arizona

Permanent residence: Hanover, New Hampshire

+1 520-230-2341

✉ chguiterman@arizona.edu

🌐 chris-guiterman.rbind.io

🐦 [ChrisGuiterman](https://twitter.com/ChrisGuiterman)

🔗 [chguiterman](https://github.com/chguiterman)

*Forest and fire ecology | Forest resilience and
vulnerabilities to climate change | Human influences on
forest systems | Applications in dendrochronology*

Education

- 2016 Ph.D. University of Arizona, School of Natural Resources and the Environment, Tucson, AZ
- 2009 M.S. University of Maine, Orono, School of Forest Resources, Orono, ME
- 2005 B.A. Bates College, Geology (with honors), Lewiston, ME

Work Experience

- 2017– Assistant Research Scientist. Laboratory of Tree-Ring Research, University of Arizona, Tucson, AZ
- 2010–2016 Graduate Research Associate; Course Instructor; Teaching Assistant. University of Arizona, Tucson, AZ
- 2007–2009 Graduate Research Assistant; Teaching Assistant. University of Maine, Orono, ME
- 2005–2007 Forest Inventory Specialist (FIA, CVS, timber cruises). Camp II Forest Management, Joseph, OR

Grants & Fellowships

Total research funding: \$1,053,666

Note: I served as the project lead and/or PI unless otherwise specified

- In review **Feedbacks and scale at an ancient wildland-urban interface**, *NSF Dynamics of Integrated Socio-Environmental Systems*, \$1,599,949.
 - with Chris Roos (PI). UofA (Guiterman co-PI) share \$362,117.
- In review **Synthesis of the new North American tree-ring fire-scar network: using past and present fire-climate relationships to improve projections of future wildfire**, *USGS Powell Center for Analysis and Synthesis*, \$155,381.
 - with Ellis Margolis, Sean Parks, and Rachel Loehman

- 2021–2023 **Resilience in a longleaf savanna: Historical tree recruitment in response to frequent disturbance and climate variability**, *Wade Research Foundation*, \$75,000.
 ● with Monica Rother
- 2021–2022 **Delivering the North American tree-ring fire history network through a web application and an R package**, *USGS Community for Data Integration (CDI)*, \$50,000.
 ● with Ellis Margolis and Mike Crimmins
- 2019–2021 **Integrated watershed hazard assessment for wildfire, floods, and debris flows on the Navajo Nation**, *BIA Tribal Resilience Program*, \$150,000.
 ● with Ann Youberg
- 2020–2021 **Designing climate adaptation plans for the forests of the Navajo Nation**, *Southwest Climate Adaptation Science Center*, \$225,328.
 ● with Margaret Evans (PI) and Justin DeRose
- 2020–2021 **A grove of stories: Dendrochronology of the Wheatfields Lake peel-tree grove on the Navajo Nation**, *University of Arizona Foundation Small Grants Program*, \$20,000.
 ● with William Tsosie (Navajo Heritage and Historic Preservation Department)
- 2017–2018 **Dendrochronology study for Wupakti Residence 1 viga preservation**, *National Park Service, Wupakti National Monument*, \$14,377.
 ● with Ron Towner (PI)
- 2017–2018 **Sourcing construction timbers at Aztec Ruins National Monument**, *Western National Parks Association. Grant #17-01*, \$7,400.
 ● with Ron Towner (PI)
- 2017–2018 **Ancient trees and global change: A vulnerability assessment of old-growth forests on the Navajo Nation**, *BIA Tribal Climate Resilience Program*, \$216,694.
 ● with Ellis Margolis, Craig Allen, and Alex Becenti
- 2015–2017 **Climate drivers of tree growth across Navajo Forestlands: Incorporating dendrochronology into Continuous Forest Inventory to improve management strategies for a future climate**, *Navajo Nation*, \$99,632.
 ● with Ellis Margolis and Thomas Swetnam
- 2014–2016 **Fire regimes, demography, and climatic sensitivities of Navajo forestlands: Insights from the past to inform tribal forest management**, *EPA STAR Fellowship # F13F51318*, \$84,000.
- 2013–2015 **Forest-to-shrub type conversions: climate-disturbance interactions in the southwestern U.S.**, *USGS Cooperative Agreement G13AC00247*, \$53,000.
 ● with Ellis Margolis (PI) and Craig Allen
- 2014–2015 **Climatic sensitivities of Navajo forestlands: Use-inspired research to guide tribal forest management**, *Climate Assessment of the Southwest (CLIMAS) Fellowship, University of Arizona*, \$5,000.

- 2012–2014 **Dendrochronological sourcing of timbers from the Great Houses of Chaco Canyon, New Mexico**, *Bandelier National Monument, Desert Southwest CESU*. #UAZDS-381, \$10,735.
 ● with Thomas Swetnam, Jeffrey Dean, and Craig Allen
- 2013–2014 **Dendroecological analyses of fire-origin shrublands in former conifer forests of the Jemez Mountains, New Mexico**, *Bandelier National Monument, Desert Southwest CESU* #UAZDS-402, \$35,000.
 ● with Ellis Margolis, Thomas Swetnam, and Craig Allen
- 2012–2013 **Dendrochronological sourcing of timbers from the Great Houses of Chaco Canyon, New Mexico**, *Western National Parks Association*. Grant #13-02, \$7,500.
 ● with Thomas Swetnam, Jeffrey Dean, and Pearce Paul Creasman
- 2012 **Conference travel grant**, *University of Arizona Graduate and Professional Student Council*, \$500.

Awards & Honors

- 2018 Young Forester of the Year. Southwestern Section of the Society of American Foresters
- 2016 College of Science Scholarship. University of Arizona
- 2016 William G. McGinnies Graduate Scholarship in Arid Land Studies. School of Natural Resources & the Environment, University of Arizona
- 2015 Galileo Circle Scholar. College of Science, University of Arizona
- 2014 Best presentation, School of Earth and Environmental Sciences (SEES) Earth-week competitive plenary session. University of Arizona
- 2014 Andrew Ellicott Douglass Memorial Scholarship. Laboratory of Tree-Ring Research, University of Arizona
- 2011 Graduate College Fellowship. University of Arizona
- 2009 Phi Kappa Phi Honor Society. University of Maine
- 2009 Best Poster Presentation Award. Northeast Society of American Foresters (SAF) Conference Portland, Maine
- 2008 Golden Key International Honor Society. University of Maine
- 2008 Charles E. Schomaker Memorial Scholarship. School of Forest Resources, University of Maine
- 2004 Sigma Xi Honor Society. Bates College

Courses Taught

Lead or co-instructor

- Sum. 2019 Dendrochronology Intensive Summer Course (DISC). Laboratory of Tree-Ring Research, University of Arizona

- Spr. 2014 Field Study in Environmental Geography (303). School of Geography and Development, University of Arizona
- Sum. 2013 Our Changing Climate (Online; 230). School of Geography and Development, University of Arizona
- Win. 2013 Our Changing Climate (Online; 230). School of Geography and Development, University of Arizona
- Sum. 2012 North American Dendroecological Fieldweek (NADEF). Intro group, Jemez Mountains, New Mexico
- Sum. 2011 Dendroecology Fieldcourse (497/597). Laboratory of Tree-Ring Research, University of Arizona
- Fall 2011 Field Course – Reading a Landscape (397). School of Geography and Development, University of Arizona
- Fall 2011 Our Dynamic Landscape (240). School of Geography and Development, University of Arizona
- Teaching assistant
- Fall 2010 Physical Geography (101). School of Geography and Development, University of Arizona
- Sum. 2009 Forestry Summer Field Experience (300). School of Forest Resources, University of Maine
- Sum. 2008 Forestry Summer Field Experience (300). School of Forest Resources, University of Maine
- Fall 2003 Structural Geology (230). Geology Department, Bates College

Publications

Refereed Journal Papers

- Brice, B., **Guiterman, C. H.**, Woodhouse, C., McClellan, C., & Sheppard, P. R. (2021). Comparing tree-ring based reconstructions of snowpack variability at different scales for the Navajo Nation. *Climate Services*, 22, 100213. <https://doi.org/10.1016/j.cliser.2021.100213>
- Roos, C. I., & **Guiterman, C. H.** (2021). Dating the origins of persistent oak shrubfields in northern New Mexico using soil charcoal and dendrochronology. *The Holocene*. <https://doi.org/10.1177/09596836211003255>
- Roos, C. I., Swetnam, T. W., Ferguson, T. J., Liebmann, M. J., Loehman, R. A., Welch, J. R., Margolis, E. Q., **Guiterman, C. H.**, Hockaday, W. C., Aiuvalasit, M. J., Battillo, J., Farella, J., Kiahtipes, C. A., Toya, C., & Tosa, C. (2021). Native American fire management at an ancient wildland-urban interface in the Southwest US. *Proceedings of the National Academies of Sciences*, 118(4). <https://doi.org/10.1073/pnas.2018733118>
- Guiterman, C. H.**, Baisan, C. H., English, N. B., Quade, J., Dean, J. S., & Swetnam, T. W. (2020). Convergence of Evidence Supports a Chuska Mountains Origin

for the Plaza Tree of Pueblo Bonito, Chaco Canyon. *American Antiquity*, 85(2), 331–346. <https://doi.org/10.1017/aaq.2020.6>

- Guiterman, C. H.**, Lynch, A. M., & Axelson, J. N. (2020). **dfoliatR**: An R package for detection and analysis of insect defoliation signals in tree rings. *Dendrochronologia*, 63, 125750. <https://doi.org/10.1016/j.dendro.2020.125750>
- Klesse, S., DeRose, R. J., Babst, F., Black, B. A., Anderegg, L. D. L., Axelson, J., Ettinger, A., Griesbauer, H., **Guiterman, C. H.**, Harley, G., Harvey, J. E., Lo, Y. H., Lynch, A. M., O'Connor, C., Restaino, C., Sauchyn, D., Shaw, J. D., Smith, D. J., Wood, L., Villanueva-Díaz, J., & Evans, M. E. K. (2020). Continental-scale tree-ring-based projection of Douglas-fir growth: Testing the limits of space-for-time substitution. *Global Change Biology*, 26(9), 5146–5163. <https://doi.org/10.1111/gcb.15170>
- Rother, M. T., Huffman, J. M., **Guiterman, C. H.**, Robertson, K. M., & Jones, N. (2020). A history of recurrent, low-severity fire without fire exclusion in southeastern pine savannas, USA. *Forest Ecology and Management*, 475, 118406. <https://doi.org/10.1016/j.foreco.2020.118406>
- Guiterman, C. H.**, Margolis, E. Q., Baisan, C. H., Falk, D. A., Allen, C. D., & Swetnam, T. W. (2019). Spatiotemporal variability of human – fire interactions on the Navajo Nation. *Ecosphere*, 10(11), e02932. <https://doi.org/10.1002/ecs2.2932>
- Evans, M. E. K., Gugger, P. F., Lynch, A. M., **Guiterman, C.H.**, Fowler, J. C., Klesse, S., & Riordan, E. C. (2018). Dendroecology meets genomics in the common garden: new insights into climate adaptation. *New Phytologist*, 218(2). <https://doi.org/10.1111/nph.15094>
- Guiterman, C. H.**, Margolis, E. Q., Allen, C. D., Falk, D. A., & Swetnam, T. W. (2018). Long-Term Persistence and Fire Resilience of Oak Shrubfields in Dry Conifer Forests of Northern New Mexico. *Ecosystems*, 21(5), 943–959. <https://doi.org/10.1007/s10021-017-0192-2>
- Klesse, S., DeRose, R. J., **Guiterman, C. H.**, Lynch, A. M., O'Connor, C. D., Shaw, J. D., & Evans, M. E. K. (2018). Sampling bias overestimates climate change impacts on forest growth in the southwestern United States. *Nature Communications*, 9(1), 5336. <https://doi.org/10.1038/s41467-018-07800-y>
- Malevich, S. B., **Guiterman, C. H.**, & Margolis, E. Q. (2018). **burnr**: Fire history analysis and graphics in R. *Dendrochronologia*, 49(February), 9–15. <https://doi.org/10.1016/j.dendro.2018.02.005>
- Betancourt, J. L., & **Guiterman, C. H.** (2016). Revisiting human-environment interactions in Chaco Canyon and the American Southwest. *Past Global Change Magazine*, 24(2), 64–65. <https://doi.org/10.22498/pages.24.2.64>
- Brewer, P. W., & **Guiterman, C. H.** (2016). A new digital field data collection system for dendrochronology. *Dendrochronologia*, 38, 131–135. <https://doi.org/10.1016/j.dendro.2016.02.005>

- Guiterman, C. H.**, Swetnam, T. W., & Dean, J. S. (2016). Eleventh-century shift in timber procurement areas for the great houses of Chaco Canyon. *Proceedings of the National Academy of Sciences*, 113(5), 1186–1190. <https://doi.org/10.1073/pnas.1514272112>
- Creasman, P. P., Baisan, C. H., & **Guiterman, C. H.** (2015). Dendrochronological Evaluation of Ship Timber from Charlestown Navy Yard (Boston, MA). *Dendrochronologia*, 33, 8–15. <https://doi.org/10.1016/j.dendro.2014.10.001>
- Guiterman, C. H.**, Margolis, E. Q., & Swetnam, T. W. (2015). Dendroecological methods for reconstructing high severity fire in pine-oak forests. *Tree-Ring Research*, 71(2), 67–77. <https://doi.org/10.3959/1536-1098-71.2.67>
- Brice, B., Lorion, K. K., Griffin, D., Macalady, A. K., **Guiterman, C. H.**, Speer, J. H., Benakoun, L. R., Cutter, A., Hart, M. E., Murray, M. P., Nash, S. E., Shepard, R., Stewart, A. K., & Wang, H. (2013). Signal Strength In Sub-Annual Tree-Ring Chronologies from *Pinus ponderosa* In Northern New Mexico. *Tree-Ring Research*, 69(2), 81–86. <https://doi.org/10.3959/1536-1098-69.2.81>
- Guiterman, C.H.**, Seymour, R. S., & Weiskittel, A. R. (2012). Long-Term Thinning Effects on the Leaf Area of *Pinus strobus* L. as Estimated from Litterfall and Individual-Tree Allometric Models. *Forest Science*, 58(1), 85–93. <https://doi.org/10.5849/forsci.10-002>
- Guiterman, C. H.**, Weiskittel, A. R., & Seymour, R. S. (2011). Influences of Conventional and Low-Density Thinning on the Lower Bole Taper and Volume Growth of Eastern White Pine. *Northern Journal of Applied Forestry*, 28(3), 123–128. <https://doi.org/10.1093/njaf/28.3.123>

Papers in preparation

- Bigio, E. R., **Guiterman, C. H.**, Baisan, C. H., & Swetnam, T. W. (in prep). The influence of drought and human land-use on historical fire regimes of Buryatia, Siberia. *Ecological Research Letters*.
- Falk, D. A., Mantgem, P. J. van, Keeley, J. E., Gregg, R., **Guiterman, C. H.**, Marshall, L. A., Tepley, A. J., & Young, D. J. (in prep). Tamm Review: Mechanisms of forest resilience. *Forest Ecology and Management*.
- Guiterman, C. H.**, Gregg, R., Marshall, L. A., Falk, D. A., Mantgem, P. J. van, Keeley, J. E., Beckman, J., Allen, C. D., Stevens, J., Fornwalt, P., & Ostojia, S. (in prep). Vegetation type conversions in the US Southwest: Field observations and perspectives from fire and vegetation managers. *Forest Ecology and Management*.
- Lynch, A. M., **Guiterman, C. H.**, & Axelson, J. N. (in prep). Abruptness of western spruce budworm outbreaks in Colorado and New Mexico. *Canadian Journal of Forest Research*.

Margolis, E. Q., **Guiterman, C. H.**, & over 100 co-authors. (in prep). The North American tree-ring fire scar network. *Ecosphere*.

Other publications and reports

Guiterman, C. H., & Baisan, C. H. (2019). The origins of great house construction timbers at Chaco Canyon. *Southwest Archaeology Magazine*. Retrieved from <https://www.archaeologysouthwest.org/product/asw32-3/>

Guiterman, C. H., & Margolis, E. Q. (2019). *Vulnerabilities of Navajo Nation Forests to Climate Change*. Retrieved from https://chguiterman.github.io/Nav_report/

Eusden, J., Anderson, B., Castro, C., Gardner, P., **Guiterman, C.**, Higgins, S., Kugel, K., C., R., & Tamposi, C. (2017). Bedrock Geology of Mt. Washington, Presidential Range, NH. In B. Johnson & J. Eusden (Eds.), *Guidebook for Field Trips in Western Maine and Northern New Hampshire: New England Intercollegiate Geological Conference* (pp. 177–196). Bates College.

Guiterman, C. H. (2015). *Climatic sensitivities of Navajo forestlands: use-inspired research to guide tribal forest management*. Final report for Climate & Society Fellowship, Climate Assessment of the Southwest.

Guiterman, C. H., Margolis, E. Q., & Swetnam, T. W. (2015). *Dendroecological analyses of fire-origin shrublands in former conifer forests of the Jemez Mountains, New Mexico*. Final report to NPS Bandelier National Monument (DS CESU project UAZDS-402). Laboratory of Tree-Ring Research, University of Arizona, Tucson, AZ.

Guiterman, C. H., Swetnam, T. W., Dean, J. S., & Creasman, P. P. (2014). *Dendrochronological sourcing of timbers from the Great Houses of Chaco Canyon, New Mexico* (p. 25). Final report to Chaco Culture National Historical Park and Western National Parks Association (WNPA Grant 13-02). Laboratory of Tree-Ring Research, University of Arizona, Tucson, AZ.

Software

2020 **dfoliatR: detection and analysis of insect defoliation signals in tree rings**, CH Guiterman, AM Lynch, JN Axelson, <https://chguiterman.github.io/dfoliatR/>.

2016 **burnr: Advanced fire history tools in R**, SB Malevich, CH Guiterman, EQ Margolis, <https://cran.r-project.org/web/packages/burnr/index.html>.

2019 **suRge: An extension of dfoliatR to accomodate insect-induced growth surges in trees**, developed for Amy Hessler (West Virginia University), <https://github.com/chguiterman/suRge>.

- 2018 **slideRun: An extension of burnr to assess avalanche damage patterns on trees**, developed for Erich Peitzsch and Greg Pederson (USGS Montana), <https://github.com/chguiterman/slideRun>.
- 2017 **burnr_demo: A module-based R project for educating burnr users**, CH Guiterman, https://github.com/chguiterman/burnr_demo.

Service

Journal peer reviews: *Dendrochronologia*, *Fire Ecology*, *Forest Ecology and Management*, *Forest Science*, *Global Ecology and Biogeography*, *Geophysical Research Letters*, *International Journal of Wildland Fire*, *Journal of Archaeological Method and Theory*, *Journal of Biogeography*, *Journal of Contemporary Water Research and Education*, *Journal of Hydrology*, *Journal of Vegetation Science*, *Tree-Ring Research*, *Urban Forestry and Urban Greening*

- 2019 **Conference review committee**, 8th International Fire Ecology and Management Conference, Association for Fire Ecologist, Tucson, AZ, November 18-22, 2019.
- 2019 **Conference organizer**, Healthy Forests-Healthy Watersheds: Enabling a Cultural Shift Toward Understanding the Beneficial Aspects of Forest Fire in a Changing Climate. November 13-15, 2019. Tucson, AZ.
- 2018 **Conference organizing committee**, Society of American Foresters Southwest Section Meeting, Safford, AZ, April 19-21, 2018.
- 2018 **Education Chair**, Southwest Section of the Society of American Foresters.
- 2017 **Grant proposal reviewer**, National Geographic Society.
- 2015 **Session Chair (de facto)**, **Resource use, Environments, and Landscapes**, Society of American Archaeology Conference, April 15-18, 2015, San Francisco, CA.
- 2015 **Contributor, Chaco Research Archive. Chaco great house tree-ring database. 6,421 records**, <http://www.chacoarchive.org/cra/chaco-resources/tree-ring-database/>.
- 2015 **Open Data contributor, International Tree-Ring Databank**, NM588, Canyon del Potrero (Ponderosa pine) AD 620-2011, NM589, Narbona Pass (Ponderosa pine) AD 842-2010.

- 2015 **Invited session co-chair, Collaborative environmental research in the Southwest: Examples from the field**, 13th Biennial Conference on Science and Management on the Colorado Plateau and Southwest Region. October 5-8, 2015, Flagstaff, AZ.
- 2014 **Fellowship proposal reviewer and selection committee member** , CLIMAS Climate & Society Fellowships, University of Arizona.
- 2014 **Search committee member, Laboratory of Tree-Ring Research Director position**, University of Arizona.
- 2013 **Organizer, Tree-Ring Day**, SEES Earthweek.
- 2012 **Science advisory committee, Forests, Fire, and Tree Ring displays**, Flandrau Science Center museum exhibit on Sky Islands.
- 2012 **Representative to University of Arizona School of Earth and Environmental Sciences (SEES) Earthweek**, 2012-2013 academic year.
- 2012 **Graduate student faculty representative, Laboratory of Tree-Ring Research**, 2012-2013 academic year.
- 2011 **Interim Treasurer**, Southern Arizona Chapter of the Society of American Foresters.

Presentations

Invited seminars

- Sep 2020 **dfoliatR empowers analyses of forest defoliator outbreak chronologies**, Laboratory of Tree-Ring Research seminar series, via Zoom.
- Mar 2020 **Unearthing the story of JPB-99, the Plaza Tree of Pueblo Bonito**, Laboratory of Tree-Ring Research seminar series, via Zoom.
- Feb 2018 **Shifting timber sources signal socioecological change at the descendant Chacoan cultural center, Aztec Ruins, New Mexico**, Laboratory of Tree-Ring Research seminar series, Tucson, AZ.
- Nov 2017 **On the vulnerabilities of Navajo forests to climate change**, Navajo Nation Department of Natural Resources Annual Summit, Twin Arrows Casino, AZ.

- Nov 2017 **Timber procurement patterns of the Aztec great houses**, Aztec Ruins National Monument, New Mexico, NA.
- Mar 2017 **Ancient origins for construction timbers of the Chacoan world (850-1240 CE)**, US Geological Survey seminar series, Tucson, AZ.
- May 2016 **Landscape-scale variability in forest response to climate, Navajo Nation, US Southwest**, William G. McGinnies Graduate Scholarship in Arid Land Studies annual lecture, Tucson, AZ.
- Mar 2016 **Persistence and fire regimes of oak shrubfields suggest increasing dominance with climate change**, Southwest Fire Science Consortium Webinar, NA.
- Mar 2015 **Distant and shifting sources of Chaco timbers**, Tucson Festival of Books, Tucson, AZ.
- Oct 2014 **An integrated field data collection system for dendrochronology**, Laboratory of Tree-Ring Research seminar series, Tucson, AZ.
- Apr 2014 **Dendrochronological sourcing of timbers from the Great Houses of Chaco Canyon, New Mexico**, Laboratory of Tree-Ring Research seminar series, Tucson, AZ.
- Mar 2014 **The Beams of Chaco Culture: Unraveling an ancient environment in the Southwest**, Tucson Festival of Books, Tucson, AZ.
- Sep 2013 **Dendrochronological sourcing of timbers from the Great Houses of Chaco Canyon**, Visitors Center, Chaco Culture National Historical Park, NA.
- Mar 2013 **Tree-ring research and chronology building in the Chuska Mountains of the Navajo Nation**, Navajo Forestry Department, Ft Defiance, AZ.
- Apr 2012 **Three seasons of FIA adventures in the Pacific Northwest**, Southern Arizona Chapter of the Society of American Foresters, Tucson, AZ.
- [Conference presentations \(last five years\)](#)
- Dec 2020 **Fire and climate in the eastern Siberia over the past 500 years (1500-2010 CE)**, Xu, G., Guiterman, C., Swetnam, T., Trouet, V., Anchukaitis, K., and Baisan, C., AGU Fall Meeting, Online.

- Aug 2020 **Modern area burned in a historical context in the Jemez Mountains, New Mexico**, *Margolis, E., C. Farris, C. D. Allen, L. Johnson, D. Falk, T. Swetnam, and C. Guiterman*, ESA Virtual Meeting, Online.
- Nov 2019 **Modern area burned in a historical context in the Jemez Mountains, New Mexico**, *Margolis, E., C. Farris, C. D. Allen, L. Johnson, D. Falk, T. Swetnam, and C. Guiterman*, 8th International Fire Ecology and Management Congress, Tucson, AZ.
- Nov 2019 **Variable trajectories of Southwest ponderosa pine forests following high-severity fire**, *Iniguez, J., C. Guiterman, E. Margolis, C. Haffey, D. Carril*, 8th International Fire Ecology and Management Congress, Tucson, AZ.
- Nov 2019 **A synthesis of fire regimes in the southwestern United States**, *Guiterman, C., S. Malevich, E. Margolis, C. Baisan, E. Bigio, P. Brown, D. Falk, P. Fulé, and T. Swetnam*, 8th International Fire Ecology and Management Congress, Tucson, AZ.
- Jun 2019 **Beyond the tipping point in dry conifer forests of the US Southwest: Post-fire Gambel oak shrubfields as alternative stable states**, *Guiterman, C., E. Margolis, T. Assal, and C. Allen*, The North American Forest Ecology Workshop, Flagstaff, AZ.
 ● Invited special session
- Apr 2019 **A Case Study for Using Digital Field Data Collection**, *Brice, R., P. Brewer, C. Guiterman*, American Association of Geographers, Washington, D.C..
- Apr 2019 **No evidence of fire exclusion in the fire-scar record for the Red Hills Region of the US Southeast**, *Rother, M., J. Huffman, K. Robertson, C. Guiterman*, American Association of Geographers, Washington, D.C..
- Aug 2018 **The fingerprint of transhumance and climate on fire regimes of the Navajo Nation**, *Guiterman, C.H., E.Q. Margolis, D.A. Falk, and T.W. Swetnam*, Ecological Society of America, New Orleans, LA.
 ● Invited special session
- Jul 2018 **Disasters, natural variability, and resilience: How tree-ring data address today's challenges in forest ecosystems**, *Guiterman, C.H.*, Earth Science Information Partners (ESIP) Conference, Tucson, AZ.
 ● Plenary presentation
- May 2018 **Persistent fire-induced vegetation state switches in southwestern ponderosa pine forests**, *Guiterman, C.H.*, The Fire Continuum Conference, Missoula, MT.
 ● Invited special session

- Apr 2018 **Persistent fire-induced vegetation state switches in southwestern ponderosa pine forests**, *Guiterman, C.H.*, Society of American Foresters Southwest Section Meeting, Safford, AZ.
- Nov 2017 **Variability in tree-growth response to climate across dry conifer forests of the Navajo Nation**, *Guiterman, C.H., E.Q. Margolis, C.A. Woodhouse, A.P. Williams, D.A. Falk, and T.W. Swetnam*, Society of American Foresters, Albuquerque, NM.
- Aug 2017 **Targeted sampling designs influence tree-ring climate sensitivity: Implications for forest vulnerability assessments**, *Klesse, S., J. DeRose, C. O'Connor, D. Frank, C. Guiterman, J. Shaw, and M. Evans*, Ecological Society of America, Portland, OR.
- Apr 2017 **The origins of Chaco timbers by tree-ring based sourcing**, *Guiterman, C.H.*, Society of American Archaeologists, Vancouver, BC, Canada.
● Invited oral presentation
- Dec 2016 **Persistence and fire regimes of oak shrubfields suggest increased dominance with climate change**, *Guiterman, C.H., E.Q. Margolis, T.W. Swetnam, D.A. Falk, and C.D. Allen*, 3rd Southwest Fire Ecology Conference, Tucson, AZ.
● Invited special session oral presentation
- Dec 2016 **Navajo settlement, pastoralism, and the interruption of frequent fires in northeastern Arizona**, *Guiterman, C.H., E.Q. Margolis, C.H. Baisan, D.A. Falk, R.H. Towner, and T.W. Swetnam*, 3rd Southwest Fire Ecology Conference, Tucson, AZ.
- Oct 2015 **Climate Sensitivity of Navajo Forests: Use-inspired research to guide tribal forest management**, *Guiterman, C.H., A.C. Becenti, E.Q. Margolis, and T.W. Swetnam*, 13th Biennial Conference of Science and Management on the Colorado Plateau and Southwest Region, Flagstaff, AZ.
● Invited special session; A.C. Becenti, Head Forester, Navajo Forestry Department
- Apr 2015 **Tree-Ring Sourcing of Great House Timbers and the Plaza Tree of Pueblo Bonito, Chaco Canyon, New Mexico**, *Guiterman, C.H., T.W. Swetnam, J.S. Dean, C.H. Baisan, and N.B. English*, Society of American Archaeology, San Francisco, CA.

Professional Society Memberships

- * Tree-Ring Society
- * Forest Stewards Guild
- * Society of American Foresters
- * Association for Fire Ecology
- * Association of American Geographers

* Society of American Archaeology

Student Research Assistants & Mentees

Eze Ahanonu, undergraduate, field and lab (2014-2016)
Royale Billy-Wilson, undergraduate, field and lab (2015-2017)
Patrick Brewer, undergraduate, field and lab (2015-2016)
Alec Gagliano, undergraduate, field and lab (2016-2018)
Galen Gudenkauf, undergraduate, field (2014)
Jordan Krcmaric, post-graduate, field (2017)
Ben Olimpio, undergraduate, lab (2016-2017)
Anna Penaloza, undergraduate, lab (2013)
Gabryl Sam, post-graduate, field (2019)
Melissa Schwan, undergraduate and post-graduate, field and lab (2015-2018)
Eric Shreve, undergraduate, lab (2012-2013)
Jaime Yazzie, post-graduate, field (2019)