

**Clay Trauernicht**  
**College of Tropical Agriculture and Human Resources**  
**Dept. of Natural Resources and Environmental Management**  
FTE Distribution: 0% I; 40% R; 60% E

**Education**

<u>Degree</u>	<u>University</u>	<u>Major</u>
B.S.	University of Denver	Biology
M.S.	University of Hawaii at Manoa	Botanical Science
Ph.D.	University of Tasmania	Plant Science

**Lifetime and Fellow Achievement Awards (peer nominated and endorsed national and International-important for those without accreditation that is peer nominated and endorsed, recognized)**

2019 CTAHR Dean's Award for Excellence in Extension

**Professional Appointments**

<u>Title</u>	<u>Employer</u>	<u>Dates Employed</u>
Assistant Specialist in Ecosystem Conservation and Restoration	University of Hawaii	2021-present 2019-2021
Associate Specialist in Wildland Fire Science and Management	University of Hawaii	2013-2019
Assistant Specialist in Wildland Fire Science and Management	University of Hawaii	
Field Botanist	Department of Conservation, National Tropical Botanical Garden	2007-2009

**Courses Taught**

NREM 494 – Environmental Problem solving (3 credits)

NREM 612 – Prediction and Control of Ecosystem Degradation (3 credits)

**Publications (reverse chronological order)**

Books

Book Chapters

Gollin, L.X., and C. Trauernicht. 2018. The critical role of firefighters' place-based environmental knowledge in responding to novel fire regimes in Hawaii. *in* C. Fowler, j. Welch, and A. Sullivan, editors. Fire Otherwise: Ethnobiology of Burning for a Changing World. University of Utah Press, Salt Lake City.

Conference Proceedings

Refereed Journal Publications

C. Trauernicht, A.G. Frazier, J. Dendy, I. Bubb, C. Camacho-Fejeran, J.B. Friday, R.King, J. Manglona, F.Ruegorong, A. Singeo, C.P. Giardina, S. Cordell. 2023. How people, rainfall, and vegetation shape tropical island fire regimes across Micronesia. *Journal of Biogeography*. <https://doi.org/10.1111/jbi.14763>

C. Trauernicht. 2023. People, not goats, played “a central role” in the Maui Fires. *Science*, eletter <https://www.science.org/doi/10.1126/2f971595-b624-4487-93da-24d8b8d581d6/full/>

Tran, T.T.K., Bateni, S.M., Rezaie, F., Panahi, M., Jun, C., Trauernicht, C. and Neale, C.M., 2023. Enhancing predictive ability of optimized group method of data handling (GMDH) method for wildfire susceptibility mapping. *Agricultural and Forest Meteorology*, 339, p.109587

Ticktin, T., Mandle, L., Hastings, Z., Hoppe, T., **Trauernicht, C.** 2023. Reducing seed predation by introduced rodents helps, but is insufficient, to prevent long-term decline of common forest trees. *Biological Conservation* 278:1098474

Frazier, A.G., Giardina, C.P., Giambelluca, T.W., Brewington, L., Chen, Y.L., Chu, P.S., Fortini, L.B., Hall, D., Helweg, D.A., Keener, V.W., Longman, R.J., Lucas, M.P., Mair, A., Oki, D.S., Reyes, J.J., Yelenik, S.G., **Trauernicht, C.** 2022. A Century of Drought in Hawai'i: Geospatial Analysis and Synthesis across Hydrological, Ecological, and Socioeconomic Scales. *Sustainability*, 14(19), p.12023.

Bowman, D.M., Williamson, G.J., Johnston, F.H., Bowman, C.J., Murphy, B.P., Roos, C.I., **Trauernicht, C.**, Rostron, J. and Prior, L.D., 2022. Population collapse of a Gondwanan conifer follows the loss of Indigenous fire regimes in a northern Australian savanna. *Scientific Reports*, 12(1), pp.1-17.

Zhu, T.R., Litton, C.M., Giardina, C.P., **Trauernicht, C.**, 2021. Moisture availability and ecological restoration limit fine fuels and modelled wildfire intensity following non-native ungulate removal in Hawaii. *J. Appl. Ecology* 58:2207-2219.

Bremer, L.L., Nathan, N., **Trauernicht, C.**, Pascua, P.A., Krueger, N., Jokiel, J., Barton, J. and Daily, G.C., 2021. Maintaining the Many Societal Benefits of Rangelands: The Case of Hawai 'i. *Land*, 10:764.

Selmants, P.C., Sleeter, B.M., Liu, J., Wilson, T.S., **Trauernicht, C.**, Frazier, A.G. and Asner, G.P., 2021. Ecosystem carbon balance in the Hawaiian Islands under different scenarios of future climate and land use change. *Environmental Research Letters* 16:104020.

Melone, A., Bremer, L.L., Crow, S.E., Hastings, Z., Winter, K.B., Ticktin, T., Rii, Y.M., Wong, M., Kukea-Shultz, K., Watson, S.J. and **Trauernicht, C.**, 2021. Assessing Baseline Carbon Stocks for Forest Transitions: A Case Study of Agroforestry Restoration from Hawai'i. *Agriculture*, 11(3), p.189.

Nugent, A.D., Longman, R., **Trauernicht, C.**, Lucas, M., Diaz, H.F. and Giambelluca, T.W., 2020. Fire and Rain: The Legacy of Hurricane Lane in Hawai 'i. *Bulletin of the American Meteorological Society*.

Lucas, M.P., **Trauernicht, C.**, Frazier, A.G. and Miura, T., 2020. Long-Term, Gridded Standardized Precipitation Index for Hawai'i. *Data*, 5(4), p.109.

**Trauernicht, C.** 2019. Vegetation-Rainfall interactions reveal how climate variability and climate change alter spatial patterns of wildland fire probability on Big Island, Hawaii. *Science of the Total Environment* 650:459-469

Balick, M.J., R.A. Lee, J.M. De Gezelle, R. Wolkow, G. Cohen, F. Sohl, B. Raynor, **C. Trauernicht**. 2019. Traditional lifestyles, transition, and implications for healthy aging: An Example from the remote island of Pohnpei, Micronesia. *PloS one*, 14:e0213567.

Frazier, A.G., J.L. Deenik, N.D. Fujii, G.R. Funderburk, T.W. Giambelluca, C.P. Giardina, D.A. Helweg, V.W. Keener, A.Mair, J.J. Marra, S.McDaniel, L.N. Ohye, D.S. Oki, E.W. Parsons, A.M. Strauch, and **C. Trauernicht**. 2019. Managing Effects of Drought in Hawai'i and U.S.-Affiliated Pacific Islands pages 95-121 in J.M. Vose, D.L. Peterson, L. David, C.H. Luce, T. Patel-Weynand, editors. Effects of drought on forests and rangelands in the United States. Gen. Tech. Rep. WO-98. Washington, DC: U.S.D.A. Forest Service.

**Trauernicht, C.**, T. Ticktin, H. Fraiola, Z. Hastings, A. Tsuneyoshi. 2018. Active restoration enhances the recovery of a Hawaiian mesic forest after fire. *Forest Ecology and Management* 411:1-11

Bremer, L, L. Mandle, **C. Trauernicht**, K. Burnett, P. Pascua, H.L. McMillen, N. Kurashima, C.A. Wada, S. Quazi, T. Giambelluca, T. Ticktin. 2018. Bringing multiple values to the table: assessing future land-use and climate change in North Kona, Hawai'i. *Ecology and Society* 23

- Wada C., L. Bremer, K. Burnett, **C. Trauernicht**, T. Giambelluca, L.Mandle, E.Parsons, C. Weil, T. Ticktin. 2017. Prioritizing management investments at Pu‘u Wa‘awa‘a, Hawaii using spatial changes in water yield and landscape flammability under forest restoration and climate change. *Pacific Science* 71:401-424
- Mora, C., B. Dousset, I.R. Caldwell, F.E. Powell, R.C. Geronimo, Coral R. Bielecki, C.W. Counsell, B.S. Dietrich, E.T. Johnston, L.V. Louis, M.P. Lucas, M.M. McKenzie, A.G. Shea, H.Tseng, T.W. Giambelluca, L.R. Leon, E.Hawkins, **C. Trauernicht**. 2017. Global risk of deadly heat. *Nature Climate Change* 7:501-506
- Hawbaker, T., **C. Trauernicht**, S. Howard, C. M. Litton, C.P. Giardina, J. Jacobi, L. Fortini, F. Hughes, P. Selmants, Z. Zhu. 2017. Wildland fires and greenhouse emissions for Hawaii. *in* P. Selmants et al. Baseline and projected future carbon storage and greenhouse gas fluxes in ecosystems of Hawaii. US Geological Survey Professional Paper 1834
- Trauernicht, C.**, B.P. Murphy, L.D. Prior, M.J. Lawes, D.M.J.S. Bowman. 2016. Human imposed, fine-grained patch burning explains the population stability of a fire-sensitive conifer in a frequently burnt northern Australian savanna. *Ecosystems* 19:896-909
- Trauernicht, C.**, E. Pickett, C.P. Giardina, C.M. Litton, S. Cordell, A. Beavers. 2015. The contemporary scale and context of wildfire in Hawaii. *Pacific Science* 69:427-444
- Friday, J.B., S. Cordell, C.P. Giardina, F. Inmahn-Narahari, N. Koch, J.K. Leary, C.M. Litton, **C. Trauernicht**. 2015. Future directions for forest restoration in Hawaii. *New Forests* 46:733-746
- Trauernicht, C.**, B.W. Brook, B.P. Murphy, G.J. Williamson, D.J.M.S. Bowman. 2015. Local and global pyrogeographic evidence that indigenous fire management creates pyrodiversity. *Ecology and Evolution* 5: 1908–1918
- Trauernicht, C.**, B. P. Murphy, N. Tangalin, D.M.J.S. Bowman. 2013. Cultural legacies, fire ecology, and environmental change in the Stone Country of Arnhem Land and Kakadu National Park. *Ecology and Evolution* 3:286-297
- Radford, I., A.N. Andersen, G. Graham, **C. Trauernicht**. 2013. The fire refuge value of patches of a fire-sensitive tree in fire-prone savannas: *Callitris intratropica* in Northern Australia. *Biotropica* 45:594-601
- Trauernicht, C.**, B.P. Murphy, T.E. Portner, D.M.J.S. Bowman. 2012. Tree cover–fire interactions promote the persistence of a fire-sensitive conifer in a highly flammable savanna. *Journal of Ecology* 100:958-968
- \*\*Featured as a Research Highlight in Nature, April 2012
- Trauernicht, C.**, T. Ticktin, and G. Lopez Herrera. 2006. Cultivation of nontimber forest products alters understory light availability in a humid tropical forest in Mexico. *Biotropica* 38:428-436
- Trauernicht, C.** and T. Ticktin. 2005. The effects of nontimber forest product cultivation on the plant community structure and composition of a humid tropical forest in southern Mexico. *For. Ecol. Mgmt.* 219:269-278

#### Extension Publications

##### Peer-Reviewed Technical Guides

- Trauernicht, C.** and Melissa Kunz. 2019. Fuel breaks and fuels management for Pacific Island grasslands and savannas. University of Hawaii Cooperative Extension Service, Forest and Natural Res. Mgmt, Series RM-22.
- Trauernicht, C.** and M.P. Lucas. 2016. Wildfire ignition density maps for Hawaii. University of Hawaii Cooperative Extension Service, Forest and Natural Resource Management Series RM-21
- Trauernicht, C.** and E. Pickett. 2016. Pre-fire planning for Hawaii and Pacific Islands. University of Hawaii Cooperative Extension Service, Forest and Natural Resource Management Series RM RM-20
- Trauernicht, C.** 2016. Fire Management and Species Conservation on Oceanic Islands. Workshop Chapter for the

IUCN World Conservation Congress Conservation Campus #WCC\_9622.  
Cram, D. and **C. Trauernicht**. 2015. Post-fire soil and vegetation monitoring in Hawaii. University of Hawaii Cooperative Extension Service, Forest and Natural Resource Management Series RM-19  
Stevens, B., J.B. Friday, D. Cram, **C. Trauernicht**. 2014. Protecting tree plantations from fire in Hawaii. University of Hawaii Cooperative Extension Service, Forest and Natural Resource Management Series RM-18

#### Fact Sheets and Informational Briefs

C. Trauernicht, N. DeMaagd, and M. Chimera. 2022. Changing climate and wildfire in Hawaii: Current observations and future projections. Pacific Fire Exchange Fact Sheet.  
Faccenda, K., M. Chimera, C. Trauernicht. 2022. Weed fire risk assessment for Hawaii. Pacific Fire Exchange Fact Sheet. <http://www.pacificfireexchange.org/research-publications-1/>  
L. Bremer, Z. Hastings. C. Trauernicht. 2021. Agroforestry and Watershed Services. Hawaii Agroforestry Fact Sheet Series..  
L. Bremer, Z. Hastings. C. Trauernicht. 2021. Agroforestry and Carbon. Hawaii Agroforestry Fact Sheet Series.  
L. Bremer, Z. Hastings. C. Trauernicht. 2021. Functional Traits for Agroforestry Design. Hawaii Agroforestry Fact Sheet Series.  
L. Bremer, Z. Hastings. C. Trauernicht. 2021. Agroforestry and Climate Regulation. Hawaii Agroforestry Fact Sheet Series.  
Trauernicht, C., M. Chimera, E. Pickett, N. Baretto. 2021. Changing Climate and fire: A crisis brewing in the Pacific. Pacific Fire Exchange Fact Sheet. <http://www.pacificfireexchange.org/>  
Trauernicht, C. and M. Chimera. 2021. Wildfire Review: Abandoned Agriculture is Hawaii's fire problem in 2019. Pacific Fire Exchange Fact Sheet. <http://www.pacificfireexchange.org/>  
Trauernicht, C. and M. Chimera. 2021. Wildfire Review: Abandoned Agriculture is Hawaii's fire problem in 2019. Pacific Fire Exchange Fact Sheet. <http://www.pacificfireexchange.org/>  
Trauernicht, C. and M. Chimera. 2020. 2019 Wildfire Summary for the Western Pacific. Pacific Fire Exchange Fact Sheet. <http://www.pacificfireexchange.org/>  
**Trauernicht, C.** and M. Chimera. 2019. Pacific Island Fuel Breaks Quick Reference. Pacific Fire Exchange Fact sheet. <http://www.pacificfireexchange.org/research-publications-1/>  
**Trauernicht, C.,** M. Kunz. 2019. 2018 Wildfires in the Western Pacific. PFX Annual Summary. Pacific Fire Exchange Fact Sheet. <http://www.pacificfireexchange.org/research-publications-1/>  
**Trauernicht, C.,** M. Kunz, and M. Chimera. 2019. 2018 Wildfires in Hawaii. PFX Annual Summary. Pacific Fire Exchange Fact Sheet. <http://www.pacificfireexchange.org/research-publications-1/>  
**Trauernicht, C.** and M. Kunz. 2019. Pacific Fire Exchange – impacts of fire science communication in the Pacific. Fact Sheet for policymakers.  
D'Antonio, C., S. Yelenik, **C. Trauernicht**, M. Kunz. 2018. The Grass-Fire Cycle. Pacific Fire Exchange Fact Sheet.  
**Trauernicht, C.** and M. Kunz. 2018. 2017 Wildfires in Hawaii. PFX Annual Summary. Pacific Fire Exchange Fact Sheet. <http://www.pacificfireexchange.org/research-publications-1/>  
Pickett, E, M. Kunz, **C. Trauernicht**. 2017. Addressing Wildfire in Hawaii. One-pager for Hawaii Legislators.  
Fifita, P. and **C. Trauernicht**. 2017. Climate smart agriculture for Pacific Islands. Pacific Island Climate Change Cooperative Fact sheet.  
**Trauernicht, C.** and M. Kunz. 2017. Wildfire in the US-Affiliated Pacific Islands. Pacific Fire Exchange Fact Sheet. <http://www.pacificfireexchange.org/research-publications-1/>  
Kunz, M., E. Pickett, **C. Trauernicht**. 2016. Pre-fire planning at-a-glance. Pacific Fire Exchange Fact Sheet.  
Litton, C.M. and **C. Trauernicht**. 2016. Grazing to reduce blazing. Pacific Fire Exchange Fact Sheet. Available Online: <http://www.pacificfireexchange.org/research-publications-1/>  
**Trauernicht, C.** 2015. El Niño and long-lead fire weather prediction for Hawaii and US-affiliated Pacific Islands. Pacific Fire Exchange Fact Sheet. Available online at <http://www.pacificfireexchange.org/research-publications-1/>  
**Trauernicht, C.** 2014. Wildfire in Hawaii. Pacific Fire Exchange Fact Sheet. Available online at <http://www.pacificfireexchange.org/research-publications/wildfire-in-hawaii-fact-sheet>

### Multi-agency Outreach Publications

Ecological Drought in the US-Affiliated Pacific Islands. In Press. Pacific Islands Climate Science Center.  
Ecological Drought in the Hawaiian Islands. 2017. Pacific Islands Climate Science Center Workshop.  
Hawaii Wildfire Look Out! 2016. Wildfire safety fact sheet. [www.HawaiiWildfire.org/lookout](http://www.HawaiiWildfire.org/lookout)  
Ready, Set, Go! Hawaii. 2014. Wildfire safety checklist. International Association of Fire Chiefs

### Other Publications

**Trauernicht, C. 2021.** Pacific Island wildfires highlight vulnerability to climate change and how to address it. Op-Ed, The Hill.

**Trauernicht, C.** 2019. Recent Maui fires require proactive statewide response. Honolulu Civil Beat Article.

**Trauernicht, C.** 2018. Fire is the one Hawaii disaster we can avoid. Honolulu Civil Beat Article.

**Trauernicht, C., E. Pickett, P. Beimler, C.P. Giardina, C.M. Litton, E. Moller, S. Cordell, J.B. Friday.** 2018. A collaborative approach to prioritizing fire management needs for the Pacific region. *Fire Management Today* 76:30-35.

**Trauernicht, C.** 2016. Wildfire and Drought Look Out! campaign. Hookele: Pearl Harbor Hickam News, May 13, 2016

**Trauernicht, C.** 2016. Be Prepared for Hawaii's year-round fire season. Oahu Army Natural Resource Program Ecosystem Management Bulletin. Vol. 60, Issue 4

Uyeda, J. and **C. Trauernicht.** 2015. The Southwest Regional Climate Hub and Climate Change in Hawaii.

Hanai' Ai Summer 2015. [ctahr.hawaii.edu/sustainag/news/articles/V24-UyedaTrauernicht-HIclimatechange.pdf](http://ctahr.hawaii.edu/sustainag/news/articles/V24-UyedaTrauernicht-HIclimatechange.pdf)

### Creative Works (i.e., Extension Videos, Websites, Blogs, Creative Designs and Exhibitions, etc.)

Ecosystems Work Website. 2022-present, <https://www.ecosystemswork.org>

Wildland Fire Extension Program website, 2017-present, <https://www.nrem-fire.org/>

Climate Forum for Cooperative Extension in the Pacific. 2017-present. <https://pacificclimateexchange.org/>

Pacific Fire Exchange Website. 2013-present. [www.PacificFireExchange.org](http://www.PacificFireExchange.org)

Pacific Fire Exchange Twitter Account, 2013-present, 834 followers. @PacificFireSci

Hawaii Online Fire History Map. 2014. <http://gis.ctahr.hawaii.edu/WildfireHistory>

### Leadership Roles (Committees, Boards, Advisory, etc.)

#### **ORGANIZING COMMITTEES**

Hawaii Predator and Wetlands Workshop 2023

Hawai Rare Plant Genetics Workshop, 2020-2021

Hawaii Wildfire Summit. Hawaii Wildfire Management Organization. Waikoloa, Hawaii, 2018.

Hawaii Cooperative Extension and Climate Adaptation Workshop, College of Tropical Agriculture and Human Resources – University of Hawaii, USDA SW Climate Hub, Pacific Islands Climate Change Cooperative

The SW Extension Climate Change Workshop, Tucson, AZ. USDA SW Climate Hub, 2016

Hawaii State Wildfire & Drought Look Out! Campaign. Multi-agency fire safety outreach effort, 2016-present.

#### **WORKING GROUPS AND PROFESSIONAL ASSOCIATIONS**

Hawaii Conservation Alliance (HCA) Steering Committee, 2022-present, quarterly

HCA Nahuluhiwakuipapa Professional Development Subcommittee, 2022-present, monthly

KUPU Natural Resources Sector Partnership, 2022-present

Hawaii Seed Bank Partnership, 2022-present, quarterly

Hawaii Rare Plant Restoration Group, 2021-present, quarterly

Waianae Wildfire Hui, 2020-present, monthly  
 Association of Natural Resource Extension Professionals, 2019-present  
 Waianae Wildfire Working Group, 2020-Present  
 Oahu Wildfire Information and Education Group, 2014-present  
 Big Island Wildfire Coordinating Group, 2013-present  
 Hawaii State Drought Committee, 2015-present  
 SW Cooperative Extension Climate Change working group, 2015-present  
 National Extension Wildland Fire Initiative 2019-present

**Graduate Students**

<u>Category</u>	<u>Current Number of Students</u>	<u>Number Graduated (Career)</u>
Chair of Master's Committees	3	7
Chair of PhD Committees		
Member of Master's Committees	1	2
Member of PhD Committees	3	2

**Grant Support**

2024-2026. Joint Fire Science Program. The Pacific Fire Exchange – fire science communication for the Pacific island region (PI). \$259,989  
 2022-2024 Hawaii Sea Grant. Building capacity for community-based agroforestry under climate change (co-PI);  
 2021-2023. National Park Service, Pacific Islands Fuels Treatment Effectiveness monitoring. (PI), \$59,275  
 2021-2023. Pacific Islands Climate Adaptation Science Center, Linking models to outcomes – how do Hawai'i stakeholders use and contribute to land-to-sea ecosystem service analyses (PI), \$199,547  
 2020-2022 Hawaii Emergency Management Authority. A near real-time, high resolution fire risk index for Hawaii state (co-PI), \$999,800  
 2020 Hawaii Dept. of Land and Natural Resources. Fire Risk Assessment for State Lands (PI), \$70,000  
 2021-2022 Joint Fire Science Program. The Pacific Fire Exchange for linking fire managers and fire scientists in the Pacific island region (PI). \$199,990  
 US Geological Survey (PI). 2019-2021 Statewide fire probability analysis for Hawaii, \$49,500.  
 Pacific Islands Climate Adaptation Science Center (Co-PI). 2020-2022 Drought and fire in US-Affiliated Pacific islands, \$199,000  
 National Park Service (PI). Samoan Traditional Use Study. 2018-2020. \$35,000  
 Western Sustainable Agriculture Research and Extension (PI). Building Capacity for Climate Adaptation with Micronesia Cooperative Extension, 2018-2019, \$74,000  
 US Forest Service Wildland-Urban Interface Program (PI). Improved fuels information for fire mitigation, 2018-2019 \$17,225  
 NRCS Conservation Innovation Grant (Co-PI). Restoring ecosystem services and biodiversity through agroforestry systems, 2019-2021, NRCS CIG Grant \$74,999  
 USDA McIntire Stennis Program (Co-PI). Ecosystem Service Trade-offs from Fire Management Strategies in Hawaii. 2018-2019, \$40,000.  
 US BLM/DOI Joint Fire Science Program (PI). The Pacific Fire Exchange, 2018-2020, \$300,000.  
 HI Div. of Forestry and Wildlife (PI). Spatial database for wildfire incident reporting, 2018-2019, \$45,000  
 USDA SW Climate Hub (PI), Supporting Climate-Smart Decision Making in Hawaii, 2015-2018, \$50,000  
 US DOI Office of Insular Affairs (PI). Climate knowledge exchange for Pacific Cooperative Extension, 2016-2018, \$121,000  
 Pacific Islands Climate Change Cooperative (PI). Agroforestry climate adaptation initiative, 2016-2017, \$107,000  
 HI Div. of Forestry and Wildlife (PI), Grazing for fire management at Puu Waawaa Reserve, 2016-2017, \$34,000  
 US BLM/DOI Joint Fire Science Program (PI). Fire science knowledge exchange for the Pacific, 2015-2017, \$199,989  
 US Forest Service (PI). Growing the Pacific Fire Exchange, 2014-2019, \$162,000

## Presentations at Conferences

### INVITED PRESENTATIONS

- Trauernicht, C. 2022. Wildland fire perspectives in Hawaii – the state of knowledge. Hawaii Fire Chiefs' Conference, Kona, Hawaii
- Trauernicht, C. 2022. An ecosystems extension program for Hawaii. Hawaii Conservation Alliance Steering Committee meeting
- Trauernicht, C. 2022. Invasive species, fire, and ecosystem protection. Hawaii Invasive Species Committee invited speaker series.
- Trauernicht, C. 2021. How to effectively build an extension program. Pacific Drought Knowledge Exchange Kick-off Meeting.
- Trauernicht, C. 2021. State of Wildfire Science in Hawaii. US Forest Service Pacific Resilience Roundtable.
- Trauernicht, C. 2021. Fire and watershed conservation. South Kohala Coastal Partnership Lecture Series, online.
- Trauernicht, C. 2021. Using fire and landscape ecology to understand social-ecological resilience on Pacific islands. Slice of PI-CASC seminar series, Pacific Island Climate Adaptation Science Center, online.
- Trauernicht, C. 2020. 50 years of fire science in Hawaii. California-Nevada-Hawaii Forest Fire Council Meeting, Kahului, Maui
- Trauernicht, C. 2019. Wildfire risk and management on Maui. Maui Nui Marine Resources Council Lecture series.
- Trauernicht, C. 2018. University of Hawaii Wildland Fire Extension Program. 90 Years of Hawaii Cooperative Extension/100 years of Hawaii 4-H Celebration.
- Trauernicht, C. 2018. Wildland fire and shape of Pacific Island landscapes. University of Hawaii Institute of Sustainability and Resilience Seminar Series on Climate Change Adaptation, Honolulu, HI.
- Trauernicht, C. 2018. People, fire, and the shape of Pacific Island landscapes. Plenary speaker, Hawaii Wildfire Summit, Waikoloa, Hawaii.
- Trauernicht, C. 2018. Wildland fire and erosion. USGS Drought in the US-Affiliated Pacific Islands Workshop.
- Trauernicht, C. 2018. Wildland fire vulnerability and needs in Hawaii. Hawaii state House of Representatives Committee and Informational Briefing, Honolulu, HI.
- Trauernicht, C. 2017. The Pacific Fire Exchange. Western State Foresters' Meeting, Honolulu, HI.
- Trauernicht, C. 2017. Planning and managing for drought: Wildfire. Pacific Islands Climate Science Center Workshop on Drought and Societal Impacts in the Main Hawaiian Islands. Honolulu, HI
- Trauernicht, C. 2016. Climate change in Hawaii and the US-Affiliated Pacific Islands. SW Extension Climate Change Workshop. Tucson, AZ
- Trauernicht, C. 2016. Hawaii's novel fire regimes and the benefits of managed rangelands. Society of Range Management, California-Pacific Section Meeting, Volcano, HI
- Trauernicht, C. 2016. Challenges to Rapid Wildfire Containment in Hawaii. California-Nevada-Hawaii Forest Fire Council Meeting. Poipu, HI
- Trauernicht, C. 2016. Challenges to Rapid Wildfire Containment. Hawaii State Fire Council Meeting, Kona, HI
- Trauernicht, C. 2015. Wildfire in the Asia-Pacific Region. East-West Center Invited Lecture Series, Honolulu, HI
- Trauernicht, C. 2015. People, fire, and Hawaii's changing landscapes. Nahelehele Dryland Forest Symposium, Kona, HI
- Trauernicht, C. 2015. Climate adaptation and Hawaii Cooperative Extension. Western SARE Ag-Pro Workshop presentation. Kahului, Maui
- Trauernicht, C. 2014. Pyrogeography and novel fire regimes in the Pacific. Invited Faculty lecture, Geography Department Seminar, University of Hawaii. Honolulu, HI
- Trauernicht, C. 2014. Adapting Hawaii's communities and landscapes to cope with wildfire. National Tropical Botanical Garden 'Plants for our Planet' lecture series. Lihue, HI
- Trauernicht, C. 2014. Hawaii State fire history analysis. Hawaii State Fire Council Meeting, Hilo, HI
- Trauernicht, C. 2011. Linking the fire ecology of *Callitris intratropica* to the heterogeneity, diversity, and management of tropical savannas on the Arnhem Plateau. Plenary Speaker. Ecological Society of Australia

conference. Hobart, Australia

## CONFERENCE PRESENTATIONS

- Trauernicht, C. 2019. Vegetation-Rainfall interactions reveal how climate variability and climate change alter spatial patterns of wildland fire probability on Big Island, Hawaii. American Geophysical Union Annual Meeting, San Francisco, CA.
- Trauernicht, C., E. Pickett, L. Kimball. 2019. A statewide mapping of fire mitigation projects in Hawaii. Hawaii Conservation Conference. Honolulu, HI
- Trauernicht, C. and M. Lucas. 2018. Drought Indices reveal climatic thresholds for wildland fire in Hawaii but differ in their application for real-time fire danger. Hawaii Conservation Conference. Honolulu, HI
- Frazier, A.G., C.P. Giardina, D. Helweg, T.W. Giambelluca, M. Lucas, C. Trauernicht, and T. Miura. 2018. Drought in Hawai'i: State of the Science and Management across Sectors", Hawai'i Conservation Conference, Honolulu, HI.
- M. Lucas, C. Trauernicht, K. Carlson. 2018. Spatially quantifying and attributing 17 years of vegetation and land cover transitions across Hawai'i. American Association of Geographers Annual Meeting, New Orleans, LA.
- Trauernicht, C. 2018. What islands can teach us about wildland fire, the consequences of land use change and community-based management. 7<sup>th</sup> International Conference on Environmental Future. Honolulu, HI.
- Frazier, A.G., M. Lucas, C.P. Giardina, T.W. Giambelluca, C. Trauernicht, and T. Miura. 2017. "Analysis of Gridded SPI in Hawai'i from 1920 to 2012 and Management Responses to Drought, Abstract H34D-02, American Geophysical Union Meeting, New Orleans, LA.
- Trauernicht, C. 2017. Current and future landscape flammability in Hawaii. Hawaii Botanical Forum. Honolulu, HI.
- Trauernicht, C. 2017. Climate adaptation and extension in Hawaii. Hawaii Agriculture Conference, Honolulu, HI.
- Gollin, L.X., C. Trauernicht. 2017. The critical role of firefighters' place-based environmental knowledge in responding to novel fire regimes in Hawaii. Society of Applied Anthropology Meeting, Santa Fe, NM
- Trauernicht, C. 2016. Climate cues and community response to fire on Pacific Islands. IUCN Public Forum: Incorporating climate adaptation into agency-level planning in the Pacific Islands region. IUCN World Conservation Congress. Honolulu, HI
- Gollin, L.X., C. Trauernicht. 2015. The wicked problem of wildfires in Hawaii and the critical role of place-based environmental knowledge of firefighters responding to novel fire regimes. Society of Ethnobiology Meeting, Santa Barbara, CA
- Mora, C., B. Dousset, C. Trauernicht, I. Caldwell, Q. Chen, C. Dau, B. Dietrich, R. Fang, R. Geronimo, E. Johnston, L. Li, M.P. Lucas, M. McKenzie, F. Powell. The timing of summer climate departure in cities and its lethal impact. Our Common Future Under Climate Change International Scientific Conference. Paris, France
- Trauernicht, C., T. Hawbaker C.M. Litton, C.P. Giardina, B. Sleeter. 2015. Wildfire in Hawaii – Overview, emissions, and future projections. Hawaii Conservation Conference. Hilo, HI
- Trauernicht, C. 2015. Impact of nonnative ungulate removal on fuels and wildfire dynamics on Pacific Islands. Association for Tropical Biology and Conservation Annual Meeting. Honolulu, HI
- Trauernicht, C. 2015. The savannization of an archipelago: people, landscape change, and Hawaii's novel fire regime. Association for Tropical Biology and Conservation Annual Meeting. Honolulu,



HI

- Trauernicht, C. 2015. The Pacific Fire Exchange: bridging science and management. Hawaii Ecosystems Annual Meeting. Hilo, HI
- Trauernicht, C., E. Pickett, C.P. Giardina, C.M. Litton, A. Pierce, JB Friday, S. Cordell. 2014. Defining Hawaii's wildfire problem and developing science-driven solutions. Island Biology Conference. Honolulu, HI
- Giardina, C.P., P. Beimler, S. Cordell, J.B. Friday, C.M. Litton, E. Moller, E. Pickett, C. Trauernicht. 2014. The Pacific Fire Exchange: Partnership driven contributions to fire management on Pacific Islands. Hawaii Conservation Conference. Honolulu, HI
- Friday, JB, S. Cordell, C.P. Giardina, F. Inman-Narahari, N. Koch, J. Leary, C. M. Litton, C. Trauernicht. 2014. Future directions for forest restoration in Hawaii. Restoring Forests Conference. Lafayette, IN
- Trauernicht, C. 2013. Matrix management and wildfires in Hawaii. Hawaii Ecosystems Meeting, Honolulu, HI
- Trauernicht, C. 2013. Forest kipukas and savanna fires. Hawaii Conservation Conference, Honolulu, HI
- Lucas, M., C. Trauernicht, K. Wood, N. Tangalin, D. Burney. 2012. Modeling remnant rare plant locations on the island of Kaua'i. Hawaii Conservation Conference, Honolulu, HI
- Trauernicht, C. 2011. Fire feedbacks, fire-sensitive vegetation, and burning heterogeneity in an Australian tropical savanna. International Congress for Conservation Biology. Auckland, New Zealand
- Trauernicht, C. 2004. The cultivation of *Chamaedorea* palms in the understory of a humid tropical forest in Mexico. Oral Presentation. Assoc. for Tropical Biology and Conservation annual conference. Miami, FL

#### Extension Workshops & Field Tours

- Context of wildland fire mitigation in Hawaii Field Tour. 2022. Wildland Fire Leadership Council Meeting, Kona, Hawaii, 33 participants.
- Hawaii Predator Control Forum. 2022. Half-day, online workshop, 165 participants.
- Grazing for fuels management. August 2022. 2-day, in person workshop at Kaala Farm with Hawaii Wildfire Management Organization, 18 participants.
- Fire impacts and watershed conservation workshop. June 2022. 3-hour, in-person workshop with UH PLACES Waianae Youth Summer Program, 66 participants
- Ecosystem Extension needs assessment. July 2022. 2-hour, online workshop at the 2021 Hawaii Conservation Conference, 40 participants
- Hawaii Rare Plant Genetics Workshop – Standardizing conservation protocols. March 2022. 2-hour, on-line workshop, 52 participants
- Weed Management and Restoration Workshop. May 2022. Full-day, online workshop with Koolau Mountain Watershed Partnership, 125 participants
- Fire Planning and Mitigation Workshop. February 2022. 2-hour online workshop for the US Forest Service Pacific Island Forest Restoration Initiative, 32 participants.
- Hawaii Rare Plant Genetics Workshop – Multi-island species. February 2022. 2-hour, on-line workshop, 45 participants
- Hawaii Rare Plant Genetics Workshop – Ex situ collections. January 2022. 2-hour, on-line workshop, 44 participants
- Hawaii Rare Plant Genetics Workshop – Species Reintroductions. January 2022. 2-hour, on-line workshop, 50 participants
- Fire state of knowledge and educational resources for Agency Leadership. December 2021. 2-hour online workshop for Honolulu, Maui, Hawaii, and Kauai County Fire Departments, 22 participants
- Fire state of knowledge and educational resources for Fire Prevention Bureaus. December 2021. 2-hour online

workshop for Honolulu, Maui, Hawaii, and Kauai County Fire Departments, 34 participants.

Hawaii Rare Plant Genetics Workshop – Molecular research best practices. December 2021. 2-hour, on-line workshop, 50 participants

Hawaii Rare Plant Genetics Workshop - Hybridization. November 2021. 2-hour, on-line workshop, 50 participants

Hawaii Rare Plant Genetics Workshop – Species relatedness. November 2021. 2-hour, on-line workshop, 45 participants

Fire planning and mitigation. November 2021. 3-hour online workshop. Palau Protected Areas Network, 20 participants

Agroforestry as part of Biocultural Restoration. October 2021. Full-day, in-person workshop with Kako‘o ‘Oiwī, 15 participants.

Cacao use in Agroforestry restoration. October 2021. Full-day, in-person workshop with UH Water Resources Research Center and Lonohana Farm, 16 participants

Hawaii Rare Plant Genetics Workshop Kick-Off. October 2021. 2-hour, on-line workshop with US. Fish and Wildlife, National Tropical Botanical Garden, Missouri Botanical Garden, 45 participants.

Hawaii Rare Plant Genetics Workshop Introduction. October 2021. 2-hour, on-line workshop, 53 participants.

Extension Program Needs Assessment. July 2021. 2-hour in-person workshop with Army Natural Resource Program Leadership, 12 participants.

Firewise Community Updates. July 2021. 2-hour, online workshop with Hawaii Wildfire Management Organization, 18 participants.

Ho‘ololi ‘Aina: Changing landscapes, fire and climate change. 2020. Online Forum for Hawaii Conservation Conference, 58 participants.

Fire Management for Farmers. 2020. Online workshop, 33 participants.

Dealing With Your Backyard During COVID-19 and Wildfire Season. 2020. Online workshop, 45 participants.

Chuuk Climate Forum. 2020. 2-day climate adaptation workshop, 40 participants

Pohnpei Climate Forum. 2020. 2-day climate adaptation workshop, 50 participants

Fire Science for Guam School Curricula Workshop. 2019. 5-day workshop with US Forest Service, 12 participants.

Drought and Fire Response Workshop for Pacific Islands. 2019. Pacific Islands Foresters Meeting, 42 participants.

Leadership tour of Central Maui Fires. 2019. Field tour of large fires on Maui Oahu state and county state elected leaders, 35 participants.

Solutions to Wildfire in Hawaii – Legislator Field Trip. 2018. Field tour at Waianae Kai, Oahu for Hawaii state legislators, 25 participants.

Wildland fire fuel break mapping workshop. 2018. 4-hour workshop for land managers in collaboration with Hawaii Wildfire Management Organization, Kahului, Maui, 45 participants.

Biocultural Approaches to Enhancing the Impact and Efficacy of Restoration Actions. 2018. 2-hour interactive panel and audience discussion. Hawaii Conservation Conference, Honolulu, HI, 35 participants.

American Samoa Extension Climate Forum. 2018. 2-day knowledge exchange event for Agriculture and natural resource management agencies on climate science and integrating climate-related resources, 60 participants.

Wildfire Planning and Risk Assessment. 2018. 3-hour workshop for land managers and home owners at the 2018 Hawaii Wildfire Summit, Waikoloa, Hawaii.

Exploring Wildfire Summit to Sea in South Kohala. 2018. Field Tour for Hawaii Wildfire Summit, 50 participants.

Wildland fire fuel break mapping workshop. 2018. 6-hour workshop for land managers in collaboration with Hawaii Wildfire Management Organization, Honolulu, HI, 14 participants.

Understanding Wildfire in Hawaii – Legislator Field Trip. 2018. Field tour at Palehua, Waianae mountains for Hawaii state legislators, 30 participants.

Northern Marianas Extension Climate Forum. 2017. 2-day knowledge exchange event for Agriculture and natural resource management agencies on climate science and integrating climate-related resources, 85 participants.

Guam Extension Climate Forum. 2017. 2-day knowledge exchange event for Extension and resource management agencies on climate science and integrating climate-related resources, 45 participants.

Wildfire Mitigation Workshop and Field Tour. 2017. Hawaii Conservation Conference. Landscape scale approaches

to reducing fire risk and managing rangelands. 30 participants.

Hawaii Extension Climate Forum. 2017. University of Hawaii. 3-day knowledge exchange event for Extension faculty on climate science, climate projections, and integrating climate-related resources, 45 participants.

Pacific Fire Exchange Wildfire Mitigation Workshop. 2017. Pacific Risk Management Ohana Annual Conference. Landscape scale approaches to reducing fire risk and managing rangelands. 25 participants.

Pacific Fire Exchange Puu Waawaa Field Tour. 2017. Nahelehele Dry Forest Symposium tour on prioritizing habitat restoration using fire science, hydrology, and economic research findings. 35 participants.

IUCN Knowledge Café: Coexisting with Wildfire, 2016. IUCN World Conservation Conference, Honolulu, 8 Participants.

Pacific Fire Exchange Kahikinui Fire Tour. 2016. Site visit to 5500 acre fire with community members, County and State Firefighters, Dept. of Hawaiian Homelands, Maui County executives and legislators. 40 participants.

Pacific Fire Exchange Nanakuli Fire Tour. 2016. Brought together NREM research faculty with landowners and state fire responders to examine/discuss fire impacts. 9 participants.

Pacific Fire Exchange Kauai Fire Field Tour. 2016. California Nevada Hawaii Nevada Forest Fire Council Meeting tour of multiple Kauai burn sites. 32 Participants.

Wildfire preparedness planning Webinar. 2016. Pacific Fire Exchange. Presenter. 17 Participants.

El Niño forecast and pre-fire planning Workshop. 2015. Online workshop & discussion for Hawaiian Watershed Partnership Coordinators, 12 participants.

Livestock grazing for fuels reduction workshop. 2015. Waianae Ranch, Waianae Kai, Oahu. 14 Participants.

National Geographic BioBlitz Survey & Field Tour 2015. Post-fire Recovery at the Broomsedge Fire. Hawaii Volcanoes National Park. 25 Participants.

Kipapa Fire Field Tour. 2015. Post-fire site visit with US Fish and Wildlife and Koolau Mountain Watershed Partnership members. 8 Participants.

Perspectives on Hawaii's wildfire problem. 2014. Hawaii Conservation Conference, Honolulu, HI. Forum Convener. 100 Participants.

Fire Fundamentals Workshop for Resource Managers. 2014. Hawaii Botanical Forum. 24 Participants.