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EDUCATION-DEGREES-LICENSES

- 2010 Certified Senior Ecologist, Ecological Society of America Professional Certification
- 2008 Fire Incident Qualification (“Red Card”), Ecologist and Technical Specialist, IQCS # 40509
- 1999 Ph.D., Ecology, University of California, Davis, California 95616. Dissertation title: *Brazilian páramos: Geoecological studies in the campos de altitude*. Major professor: Marcel Rejmánek.
- 1994 M.S. program in Biology, California State University, Hayward, California (24 quarter-hours; transferred to UC-Davis). Major professor: Rolf Benseler.
- 1990 State of California Single Subject Teaching Credential: German.
- 1989 State of California Single Subject Teaching Credentials: Physical Sciences and Social Sciences.
- 1989 M.A., Secondary Education, San Francisco State University, San Francisco, California 94132. Thesis title: *The federal government and private schooling: A study in courtship*. Advisor: Bernard Palmer.
- 1986 B.S., Geology/Earth Sciences, Montana State University, Bozeman, Montana 59715. Advisor: David Lageson.

1981 Diploma, Bozeman Senior High School, Bozeman, Montana 59715

PROFESSIONAL EXPERIENCE

- SENIOR VEGETATION ECOLOGIST (“REGIONAL ECOLOGIST”)
USDA-Forest Service Dates Employed: 7/01 - present
Pacific Southwest Region (California, Hawaii and Pacific Islands)
1323 Club Drive,
Vallejo, CA 94592
Supervisor: Debra Whitman, tel. 707-562-8689
- RESEARCH FACULTY ASSOCIATE/SENIOR LECTURER Dates: 10/03 - present
Department of Environmental Science and Policy
University of California, Davis 95616
- RESEARCH ECOLOGIST
Department of Environmental Science and Policy Dates Employed: 6/99 – 10/02
University of California, Davis 95616.
Supervisor: Dr. Susan Harrison, tel. 530-752-7110.
- RESEARCHER
University of California Natural Reserve System Dates Employed: 12/99 – 4/00
University of California, Davis 95616.
Supervisor: Dr. Virginia Boucher, tel. 530-752-6949.
- ECOLOGIST AND STATISTICIAN (self-employed)
Great Basin Unified Air Pollution Control District Dates Employed: 11/98 – 4/00
Bishop, California.
Supervisor: Dr. Jim Richards, tel. 530-752-0170.
- RESEARCH ASSISTANT IN ECOLOGY
Department of Environmental Science and Policy Dates Employed: 3/99 – 6/99
University of California, Davis 95616.
Supervisor: Dr. Susan Harrison, tel. 530-752-7110.
- RESEARCH FELLOW IN ECOLOGY
Section of Evolution and Ecology Dates Employed: 9/96 – 3/99
University of California, Davis 95616.
Supervisor: Dr. Marcel Rejmánek, tel. 530-752-1092.
- LABORATORY INSTRUCTOR/TEACHING ASSISTANT
Division of Biological Sciences and Dates Employed: 9/94 – 4/98
Division of Environmental Studies

University of California, Davis, California 95616.
 Supervisors: Dr. Jim Quinn, tel. 530-752-8027
 Dr. Ellen Dean, tel. 530-752-1091.

Courses taught: *Plant Ecology, Field and Laboratory Methods in Ecology, Evolution, California Floristics, Introduction to Zoology and Ecology.*

- PLANT ECOLOGIST (self-employed)
 Bitterroot Native Growers, Inc. Dates Employed: 1995-1996
 445 Quast Lane, Corvallis, Montana 59828.
 Supervisor: Matt Ogden.

- FIELD NATURALIST, GUIDE, AND TRANSLATOR
 International Journeys, Inc. Dates Employed: 1995
 17849 San Carlos Blvd., Fort Myers Beach, Florida.
 Supervisor: Patrice Hart.

- TEACHER (High School)
 Escola Americana de Brasília Dates Employed: 8/90 - 6/93
 L-2 Sul, SGAS, 605-E
 Brasília, D.F., Brazil.

Courses taught: *Biology* (10th grade), *Algebra* (7th/8th grade), *Advanced Placement European History* (12th grade), *History of Western Civilization* (10th grade).

- TEACHER (High School)
 Bishop O'Dowd High School Dates Employed: 9/86 - 6/89
 9500 Stearns Avenue
 Oakland, California 94605.
 Supervisor: John Calderwood.

Courses taught: *Biology* (10th grade), *Oceanography* (11th/12th grade), *U.S. Government* (12th grade), *Introduction to Economics* (12th grade), *U.S. Foreign Policy* (12th grade).

PUBLICATIONS

Young, D.J.N., C.M. Werner, K.R. Welch, T.P. Young, H.D. Safford, and A.M. Latimer. Post-fire regeneration in California, USA, shows limited climate tracking and potential for drought-induced type conversion. In review at *Global Change Biology*.

Wiggins, H.L., C.R. Nelson, A.J. Larson, and H.D. Safford. Using LiDAR to develop high-resolution models of stand structure and tree spatial patterns in a reference ecosystem. In review at *Forest Ecology and Management*.

Coppoletta C., H.D. Safford, B. Estes M.D. Meyer S.E. Gross, K.E. Merriam, N. Nicole Molinari, and R. Butz. Fire regime departure in California's Research Natural Areas: Restoring a key ecological process. In review at *Natural Areas Journal*.

- Miller, J.E.D., H. Root, and H.D. Safford. 2018. Altered fire regimes cause long-term lichen diversity losses. *Global Change Biology (in press)*.
- Shive, K., H. Preisler, K.R. Welch, H.D. Safford, R.J. Butz, K. O'Hara, and S.L. Stephens. 2018. Scaling stand-scale measurements to landscape-scale predictions of forest regeneration after disturbance: the importance of spatial pattern. *Ecological Applications (in press)*.
- Restaino, C.R., and H.D. Safford. 2018. Fire and climate change. Chapter 26, in: J. Van Wagtendonk, N. G. Sugihara, S. L. Stephens, A. E. Thode, K. E. Shaffer, and J. Fites-Kaufman, eds. *Fire in California's ecosystems*. 2nd edition. University of California Press, Berkeley, CA.
- Van Wagtendonk, J., J. Fites-Kaufman, H.D. Safford, M. North, and B.M. Collins. 2018. Sierra Nevada bioregion. Chapter 12, in: Van Wagtendonk, J., et al., eds. *Fire in California's ecosystems*. 2nd edition. University of California Press, Berkeley, CA.
- Steel, Z.L., M. Koontz, and H.D. Safford. 2018. The changing landscape of wildfire: Burn pattern trends and implications for California's yellow pine and mixed conifer forests. *Landscape Ecology* <https://doi.org/10.1007/s10980-018-0665-5>
- Stephens, S.L., B.M. Collins, C.J. Fettig, M. Finney, C. Hoffman, E.E. Knapp, M. North, H.D. Safford, and R. Wayman. 2018. Drought, tree mortality, and wildfire in forests adapted to frequent fire. *Bioscience* 68(2): 77-88
- Underwood, E.C., H.D. Safford, N.A. Molinari, and J.E. Keeley. 2018. *Valuing chaparral: ecological, socioeconomic, and management perspectives*. Springer, Cham, Switzerland.
- Safford, H.D., E.C. Underwood, and N.A. Molinari. 2018. Managing chaparral resources on public lands. Pp. 411-448 in: E.C. Underwood, H.D. Safford, N.A. Molinari, and J.E. Keeley, eds. *Valuing chaparral: ecological, socioeconomic, and management perspectives*. Springer, Cham, Switzerland.
- Safford, H.D., E.C. Underwood, N.A. Molinari., and J.E. Keeley. 2018. The past, present, and future of California chaparral. Pp. 449-454 in: E.C. Underwood, H.D. Safford, N.A. Molinari, and J.E. Keeley, eds. *Valuing chaparral: ecological, socioeconomic, and management perspectives*. Springer, Cham, Switzerland.
- Molinari, N.A., E.C. Underwood, J.B. Kim, and H.D. Safford. 2018. Climate change trends for chaparral. Pp. 385-410 in: E.C. Underwood, H.D. Safford, N.A. Molinari, and J.E. Keeley, eds. *Valuing chaparral: ecological, socioeconomic, and management perspectives*. Springer, Cham, Switzerland.
- Bohlman, G.N., E. Underwood, and H.D. Safford. 2018. Estimating biomass in California's chaparral and coastal sage scrub shrublands. *Madroño* 65: 28-46.
- Safford, H.D., S.C. Sawyer, S. Kocher, K. Hiers, and M. Cross. 2017. Linking knowledge to action: the role of boundary spanners in translating ecology. *Frontiers in Ecology and the Environment* 15: 560-568.
- Enquist, C.E., S.T. Jackson, et al. (27 other authors). 2017. Foundations of translational ecology. *Frontiers in Ecology and the Environment* 15: 541-550.

- Safford, H.D., and J.T. Stevens. 2017. Natural Range of Variation (NRV) for yellow pine and mixed conifer forests in the Sierra Nevada, southern Cascades, and Modoc and Inyo National Forests, California, USA. General Technical Report PSW-GTR-256, USDA Forest Service, Pacific Southwest Research Station, Albany, CA
- Maestrini, B., E.C. Alvey, M.D. Hurteau, H.D. Safford, and J.R. Miesel. 2017. Fire severity alters the distribution of pyrogenic carbon stocks across ecosystem pools in a Californian mixed-conifer forest. *Journal of Geophysical Research-Biogeosciences*: doi:10.1002/2017JG003832
- Levine, C.R., C.V. Cogbill, B.M. Collins, A.J. Larson, J.A. Lutz, M.P. North, C.M. Restaino, H.D. Safford, S.L. Stephens, and J.J. Battles. 2017. Evaluating a new method for reconstructing forest conditions from General Land Office survey records. *Ecological Applications* 27: 1498-1513.
- Shive, K.L., B.L. Estes, A. White, H.D. Safford, K. O'Hara, and S.L. Stephens. 2017. Rice straw mulch for post-fire erosion control: assessing non-target effects on vegetation communities. *International Journal of Wildland Fire* 26: 538-550.
- Miller, J.D., and H.D. Safford. 2017. Corroborating evidence of a pre-Euro-American low-to-mixed severity fire regime in yellow pine/mixed conifer forests of the Sierra Nevada, California, USA. *Fire Ecology* 13: 58-89.
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- Meyer, M.D., B. Bulaon, M. MacKenzie, and H.D. Safford. 2016. Mortality, structure, and regeneration in whitebark pine stands impacted by mountain pine beetle in the southern Sierra Nevada. *Canadian Journal of Forest Research* 46: 572-581.
- Welch, K.R., H.D. Safford, and T.P. Young. 2016. Predicting conifer establishment post wildfire in mixed conifer forests of the North American Mediterranean-climate zone. *Ecosphere* 7(12): article e01609.
- Kavgaç, A., E. Örtel, I. Torres, and H.D. Safford. 2016. Early postfire vegetation recovery of *Pinus brutia* forests: effects of fire severity, pre-fire stand type and aspect. *Turkish Journal of Agriculture and Forestry* 40: 723-736.
- Egan, J.M., J.M. Slougher, T. Cardoso, P. Trainer, K. Wu, H. Safford, and D. Fournier. 2016. Multi-temporal ecological analysis of Jeffrey pine beetle outbreak dynamics within the Lake Tahoe Basin. *Population Ecology* 58: 441-462.
- Stevens, J.T., H.D. Safford, M.P. North, P.M. Brown, C.R. Dolanc, S.Z. Dobrowski, D.A. Falk, C.A. Farris, J.F. Franklin, J.S. Fried, P.Z. Fulé, A.N. Gray, R.K. Hagmann, E.E. Knapp, J.D. Miller, G.F. Smith, T.W. Swetnam, and A.H. Taylor. 2016. Average stand age from forest inventory plots does not describe historical fire regimes in ponderosa pine and mixed-conifer forests of western North America. *PLoS One* 11(5): e0147688
- Bohlman, G.N., M. North, and H.D. Safford. 2016. Shrub removal in reforested post-fire areas increases native plant species richness. *Forest Ecology and Management*. 374: 195-210.
- Rivera-Huerta, H., H.D. Safford, and J.D. Miller. 2016. Patterns and trends in burned area and fire severity 1984-2010 in the Sierra de San Pedro Mártir, Baja California, México. *Fire Ecology* 12: 52-72.

- Dunbar-Irwin, M., and H.D. Safford. 2016. Climatic and structural comparison of yellow pine and mixed-conifer forests in northern Baja California (México) and the eastern Sierra Nevada (California, USA). *Forest Ecology and Management* 363: 252-266
- Keeley, J.E., and H.D. Safford. 2016. Fire as an ecosystem process. Pp. 27-45, in H.A. Mooney and E. Zavaleta (eds). *Ecosystems of California*. University of California Press, Berkeley, CA.
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- White, A.M., P.N. Manley, G.L. Tarbill, T.W. Richardson, R.E. Russell, H.D. Safford, and S.Z. Dobrowski. 2015. Avian community responses to post-fire forest structure: Implications for fire management in mixed conifer forests. *Animal Conservation*. doi:10.1111/acv.12237
- Winford, E.M., J.T. Stevens, and H.D. Safford. 2015. Fuel treatment impacts on the ecology of yellow pine and mixed conifer forests: a synthesis. *California Agriculture* 69(3): 150-156.
- Stevens, J. T., H. D. Safford, S. Harrison, and A. M. Latimer. 2015. Wildfire interactions with fuel treatments in Sierra Nevada forests: consequences for forest structure and understory plant diversity [abstract]. Page 343 in Proceedings of the large wildland fires conference; May 19-23, 2014; Missoula, MT. USDA Forest Service, Rocky Mountain Research Station, Fort Collins CO. Proceedings RMRS-P-73.
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- Schwartz, M.W., N. Butt, C.R. Dolanc, A. Holguin, M.A. Moritz, M. P. North, H.D. Safford, N. Stephenson, J.H. Thorne, and P. van Mantgem. 2015. Increasing elevation of fire in the Sierra Nevada and implications for forest change. *Ecosphere* 6(7): Article 121.
- Dobrowski, S.Z., A. Swanson, J. Abatzoglou, Z. Holden, H. Safford, M. Schwartz, and D. Gavin. 2015. Forest structure and species traits mediate projections of climate-driven recruitment declines in western US tree species. *Global Ecology and Biogeography* 24: 917-927.
- DeSiervo, M.H., E. Jules, and H.D. Safford. 2015. Disturbance response across a productivity gradient: postfire vegetation in serpentine and non-serpentine forests. *Ecosphere* 6(4): Article 60.
- Safford, H.D., J.D. Miller, and B.M. Collins. 2015. Differences in land ownership, fire management objectives and source data matter: a reply to Hanson and Odion (2014). *International Journal of Wildland Fire* 24: 286-293.
- Steel, Z.L., H.D. Safford, and J.H. Viers. 2015. The fire frequency-severity relationship and the legacy of fire suppression in California forests. *Ecosphere* 6(1): Article 8
- Long, J.W., C.N. Skinner, H.D. Safford, S. Charnley, and P. Winter. 2014. Introduction. Pp. 3 - 16, in: J.W. Long, L. Quinn-Davidson, and C.N. Skinner, eds. Science synthesis to support

- socioecological resilience in the Sierra Nevada and southern Cascade Range. General Technical Report PSW-GTR-247. USDA Forest Service Pacific Southwest Research Station, Albany, CA
- Dolanc, C.R., H.D. Safford, J.H. Thorne, and S.Z. Dobrowski. 2014. Changing forest structure across the landscape of the Sierra Nevada, CA, USA, since the 1930s. *Ecosphere* 5(8): Article 101
- Maxwell, R.S., A.H. Taylor, C. Skinner, H.D. Safford, R. Isaacs, C. Airey, and A. Young. 2014. Landscape scale modeling of reference period forest conditions and fire behavior on heavily-logged lands. *Ecosphere* 5(3): Article 32
- Stevens, J.T., H.D. Safford, and A.M. Latimer. 2014. Wildfire-contingent effects of fuel treatments can promote ecological resilience in dry mixed conifer forests. *Canadian Journal of Forest Research* 44: 843-854.
- Crimmins, S., S.Z. Dobrowski, A. Mynsberge, and H.D. Safford. 2014. Can fire atlas data improve species distribution model projections through time? *Ecological Applications* 24: 1057-1069.
- Dolanc, C.R., H.D. Safford, S.Z. Dobrowski, and J.H. Thorne. 2014. Twentieth century shifts in abundance and composition of vegetation types of the Sierra Nevada, CA, USA. *Applied Vegetation Science* 17: 442-455.
- Safford, H.D., and K.M. Van de Water. 2014. Using Fire Return Interval Departure (FRID) analysis to map spatial and temporal changes in fire frequency on National Forest lands in California. Research Paper PSW-RP-266, USDA Forest Service, Pacific Southwest Research Station, Albany, CA.
- Mallek, C.R., H.D. Safford, J.H. Viers, and J. Miller. 2013. Modern departures in fire severity and area vary by forest type, Sierra Nevada and southern Cascades, California, USA. *Ecosphere* 4(12): Article 153.
- Dolanc, C.R., R. Westfall, H.D. Safford, J.H. Thorne, and M. Schwartz. 2013. Growth-climate relationships for six subalpine tree species of the central Sierra Nevada, CA, USA. *Canadian Journal of Forestry* 43: 1114-1126.
- Dalrymple, S.E., and H.D. Safford. 2013. Litter clearings form around trees following low severity burns in Jeffrey pine (*Pinus jeffreyi*) forests and reduce tree mortality during subsequent wildfire. *Forest Ecology and Management* 310: 847-856.
- Fernandez-Going, B.M., S.P. Harrison, B.L. Anacker, and H.D. Safford. 2013. Climate interacts with soil to produce beta diversity in Californian plant communities. *Ecology* 94: 2007-2018.
- Dolanc, C. R., J. H. Thorne, and H. D. Safford. 2013. Widespread shifts in the demographic structure of subalpine conifers in the Sierra Nevada, California, 1934 to 2007. *Global Ecology and Biogeography* 22: 264-276.
- Safford, H.D. 2012. A summary of current trends and probable future trends in climate and climate-driven processes in the Lake Tahoe Basin and the neighboring Sierra Nevada. Pp. 11-18, in: J. Browning and P. Palacios (comps.). *Proceedings of the 60th annual Western International Forest Disease Work Conference; 2012, October 8-12, Tahoe City, California*. WIFDWC.
- Miller, J.D., and H.D. Safford. 2012. Trends in wildfire severity 1984-2010 in the Sierra Nevada, Modoc Plateau and southern Cascades, California, USA. *Fire Ecology* 8: 41-57.

- Lawler, J. J., H. D. Safford, and E. H. Girvetz. 2012. Martens and fishers in a changing climate. Pp. 371-397, in K. B. Aubry (ed). *Biology and Conservation of Martens, Sables, and Fishers: a New Synthesis*. Cornell University Press, Ithaca, NY.
- Romme, W. H., J. A. Wiens, and H. D. Safford. 2012. Setting the stage: theoretical and conceptual background of historical range of variation. Pp. 3-18, in: J. A. Wiens, G. Hayward, H. D. Safford, and C.M. Giffen (eds). *Historical environmental variation in conservation and natural resource management*. John Wiley and Sons, New York, NY.
- Safford, H. D., G. Hayward, N. Heller, and J. A. Wiens. 2012. Climate change and historical ecology: can the past still inform the future? Pp. 46-62, in: J. A. Wiens, G. Hayward, H. D. Safford, and C.M. Giffen (eds). *Historical environmental variation in conservation and natural resource management*. John Wiley and Sons, New York, NY.
- Safford, H. D., J. A. Wiens, and G. Hayward. 2012. The growing importance of the past in managing ecosystems of the future. Pp. 319-327, in: J. A. Wiens, G. Hayward, H. D. Safford, and C.M. Giffen (eds). *Historical environmental variation in conservation and natural resource management*. John Wiley and Sons, New York, NY.
- Wiens, J. A., G. Hayward, H. D. Safford, and C.M. Giffen (eds). 2012. *Historical environmental variation in conservation and natural resource management*. John Wiley and Sons, New York, NY. 337 p.
- Wiens, J. A., H. D. Safford, K. McGarigal, W. H. Romme, and M. Manning. 2012. What is the scope of "history" in historical ecology? Issues of scale in management and conservation. Pp. 63-75, in: J. A. Wiens, G. Hayward, H. D. Safford, and C.M. Giffen (eds). *Historical environmental variation in conservation and natural resource management*. John Wiley and Sons, New York, NY.
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UNPUBLISHED REPORTS

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Safford, H.D. 2016. Colombia trip report: fire science workshop and forest restoration field review, June 23-July 2, 2016. 8 pp. USDA Forest Service International Programs, Washington, DC.

Safford, H.D. 2015. Informe del viaje: taller de manejo de praderas y pastoreo, Reserva de la Biósfera Sierra de la Laguna, Baja California Sur, 30 de noviembre a 6 de diciembre, 2014. 12 pp. USDA Forest Service International Programs, Washington, DC.

Safford, H.D. 2013. Natural Range of Variation (NRV) for yellow pine and mixed conifer forests in the bioregional assessment area, including the Sierra Nevada, southern Cascades, and Modoc and Inyo National Forests. 151 pp. Unpublished report. USDA Forest Service, Pacific Southwest Region, Vallejo, CA.

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- Safford, H.D. 2012. Trip report: Climate change and high mountain vegetation in the Atlantic Forest biome, southeast Brazil. USDA Forest Service Technical Assistance Trip, November 27-December 5, 2011. 21 pp. USDA Forest Service International Programs, Washington, DC.
- Napper, C., T. Ellsworth, H. D. Safford, D. Gower, and J. Peterson. 2011. Mount Carmel Fire (Haifa, Israel) response trip report. USDA Forest Service Technical Assistance Trip, March 13–18, 2011. 11 pp. USDA Forest Service International Programs, Washington, DC.
- Safford, H. D., and B. Brady. 2010. Trip report: Fire and forest management. Mediterranean zone National Parks, Mexico. USDA Forest Service Technical Assistance Trip, November 8 – November 12, 2010. 20 pp. USDA Forest Service International Programs, Washington, DC.
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- Safford, H. D. 2009. Geography and biodiversity of the South Asia, Mekong, and Insular Southeast Asia Subregions. 25 pp. Report submitted to Asia Regional Biodiversity Conservation Assessment, US Agency for International Development, Regional Development Mission for Asia, Bangkok, Thailand.
- Safford, H. D., and P. Cannon. 2009. Trip report: Agroforestry and forest restoration, Paraguay. USDA Forest Service Technical Assistance Trip, March 7 – March 21, 2009. 42 pp. USDA Forest Service International Programs and US Agency for International Development, Washington, DC.
- Carlson, C., S. Z. Dobrowski, and H. D. Safford. 2009. Angora fire vegetation monitoring, 2nd year annual progress report. 33pp. Report submitted to the Tahoe Science Program, Incline Village, NV.
- Schmidtke, P., Safford, H. D., and Buchanan, J. 2008. Trip report: National Incident Management System development, Brazil. USDA Forest Service Technical Assistance Trip, September 29, 2008 – October 10, 2009. c. 35 pp. USDA Forest Service International Programs and US Agency for International Development, Washington, DC.
- Anacker, B. L., Safford, H. D., and Harrison, S. P. 2008. Golden Trout Wilderness meadow inventory and monitoring: data analysis and assessment of current status. 32 pp. Report to the USDA Forest Service Pacific Southwest Region and the Inyo National Forest.
- Safford, H. D. 2008. Fire severity in fuel treatments, American River Complex Fire, Tahoe National Forest, California. 21 pp. Report to the USDA Forest Service, Pacific Southwest Region Fire and Aviation Management Staff.
- Safford, H. D., and Juergens, G. 2008. Trip report: Ecological restoration of burned areas, Paraguay. USDA Forest Service Technical Assistance Trip, April 26 – May 3, 2008. 26 pp. USDA Forest Service International Programs and US Agency for International Development, Washington, DC.

- Safford, H. D. 2008. Condition and trends in Angola forestlands. Report submitted to FAA 118-119 Tropical Forest and Biodiversity Assessment Team. 22 pp. USDA Forest Service International Programs and US Agency for International Development, Washington, DC.
- Safford, H. D. 2008. Potential impacts of climate change to the habitat of the California fisher: an initial assessment. 52 pp. Report for interagency California Fisher recovery program.
- Safford, H. D., and Lombardo, D. 2007. Trip report: Tree identification, vegetation assessment, and wildlife monitoring training, Divundu, Namibia, and Mucusso, Angola. USDA Forest Service Technical Assistance Trip, March 7-24, 2007. 21 pp. USDA Forest Service International Programs and US Agency for International Development, Washington, DC.
- Herbst, D. B., Roll, S. K., and Safford, H. D. 2007. Evaluation of livestock grazing effects and recovery in the Golden Trout Wilderness using macroinvertebrate bioassessment indicators and physical habitat surveys: contrast of grazed and ungrazed allotments. 53 pp. Final report to California Department of Fish and Game, US-Forest Service and California Trout.
- Zweede, M., H. D. Safford, and G. Juergens. 2006. Trip and assessment report: USDA Forest Service forest resource assessment trip, Kuando Kubango Province, Angola. USDA Forest Service Technical Assistance Trip, May 16-June 1, 2006. 64 pp. USDA Forest Service International Programs and US Agency for International Development, Washington, DC.
- Safford, H.D. 2006. Potential impacts of climate change to fisher habitat in California: a preliminary assessment, Unpublished report for the USDA Forest Service, Pacific Southwest Region. 29 pp.
- Slaton, M. R., A. J. Gallegos, H. D. Safford, and D. Downie. 2006. Lake Tahoe Basin Management Unit Terrestrial Ecological Unit Inventory. Users' Guide. 353 pp.
- Harrison, S. P. and Safford, H. D. 2001. Postfire recovery of serpentine chaparral at the Knoxville Public Lands (Napa and Lake Counties, CA). 4 pp. Draft report, prepared for the US Bureau of Land Management, Ukiah Field Office.
- Safford, H. D. August, 2000. The McLaughlin Reserve database: Summary of available data. 56 pp. Prepared for University of California Natural Reserve System, University of California-Davis.
- Richards, J. H., Safford, H. D., and Paulus, J. November, 2000. Plant, soil, and groundwater relations in *Distichlis spicata* on the Owens Lake Playa. 70 pp. Prepared for Great Basin Unified Air Pollution Control District, Bishop, CA.

GRANTS RECEIVED

2018	Bureau of Land Management SNPLMA (S. Nevada Public Lands Mgt Act): <i>Forest succession monitoring of three wildfires in the Lake Tahoe Basin</i>	\$110,000
2017	National Fish and Wildlife Foundation: <i>Developing a Decision Support Tool for Post-Fire Restoration</i>	\$169,020
2017	Western Wildlands Environmental Threats Assessment Center, USDA Forest Service: <i>Restoration Prioritization in Dry Forests</i>	\$85,410

2017	USDA Forest Service Pacific Southwest Region: <i>Grassland Species Indicators of Yosemite Toad Habitat</i>	\$8,000
2016	California Department of Forestry and Fire Protection-FRAP: <i>Fire perimeter updates for California Fire History Geodatabase.</i>	\$25,000
2016	US Fish and Wildlife Service: <i>Analysis of environmental drivers of rare plant distribution and abundance, Ash Meadows, Nevada.</i>	\$90,000
2016	US Bureau of Land Management California State Office: <i>Fire effects on postfire diversity and growth rates in serpentine and nonserpentine chaparral</i>	\$8,000
2015	USDA Forest Service Pacific Southwest Region: <i>Ecosystem services assessment of the Santa Clara River watershed, southern California</i>	\$170,000
2015	California Landscape Conservation Cooperative. Project: <i>Assessing the impacts of future climates and fire on hydrologic regimes in the Mediterranean-type ecosystems of southern California (Co-PI)</i>	\$120,275
2015	Joint Fire Science Program. Project: <i>Vegetation succession in an old-growth ponderosa pine forest following structural restoration with fire: implications for retreatment and maintenance (Co-PI)</i>	\$164,000
2014	USDA Forest Service Pacific Southwest Region: <i>Ecosystem services assessment of the Santa Clara River watershed, southern California</i>	\$320,000
2014	USDA Forest Service Pacific Southwest Region Postfire Restoration Fund: <i>Development of spatial predictive models of postfire tree regeneration in Sierra Nevada wildfires.</i>	\$350,000
2014	USDA Forest Service Pacific Southwest Region Postfire Restoration Fund: <i>Inventory of vegetation and fuels conditions in the area of the Power Fire.</i>	\$315,000
2013	Joint Fire Science Program. Project: <i>California Fire Science Delivery Consortium Support for technical assistant in Sierra Nevada section</i>	\$70,750
2013	Joint Fire Science Program. Project: <i>Effects of fuel treatments and wildfire on winter snowpack accumulation and depletion</i>	\$25,000
2012	Joint Fire Science Program. Project: <i>California Fire Science Delivery Consortium Support for technical assistant in Sierra Nevada section</i>	\$38,000
2012	USDA Forest Service-International Programs. Project: <i>Forest fuels assessment of the Sierra San Pedro Mártir and Constitución de 1857 National Parks, Baja California, Mexico</i>	\$60,000
2011	USDA Forest Service-International Programs. Project: <i>Field-based accuracy assessment of vegetation maps of the Sierra San Pedro Mártir and Constitución de 1857 National Parks, Baja California, Mexico</i>	\$13,000

2011	California Energy Commission. Project: <i>Monitoring the ecological effects of forest fuel treatments in wildfire areas</i>	\$120,000
2010	Joint Fire Science Program. Project: <i>California Fire Science Delivery Consortium</i> Support for technical assistant in Sierra Nevada section	\$38,000
2010	USDA Forest Service, Tahoe National Forest. Project: <i>Installation and monitoring of a vegetation plot grid in the Pendola Fire watershed, Tahoe and Plumas National Forests</i>	\$58,000
2010	USDA Forest Health Protection Program, Spatial Technology Development Program. Project: <i>Creating a spatially-dependent model for probability of Jeffrey Pine Beetle-caused mortality in the Lake Tahoe Basin (Co-PI)</i>	\$45,500
2009	USDA Forest Service-International Programs, and USDA Foreign Agricultural Service. Project: <i>A comparison of current patterns of fire severity in the conifer forests of Baja California, Mexico with the eastern Sierra Nevada, California, USA.</i>	\$55,000
2009	USDA Forest Service, Lake Tahoe Basin Management Unit Project: <i>Vegetation, fuels, and tree survival monitoring, Angora Fire, Lake Tahoe Basin</i>	\$60,000
2008	Southern Nevada Public Lands Management Act, Tahoe Science Program Project: <i>Spatially Explicit Reference Conditions for Forest Landscapes in the Lake Tahoe Basin, USA (Co-PI)</i>	\$197,348
2008	Southern Nevada Public Lands Management Act, Tahoe Science Program Project: <i>Developing FCCS Fuelbeds for the Angora Fire Region.</i> PI: Roger Ottmar, USFS Pacific Northwest Research Station	\$73,130
2008	Southern Nevada Public Lands Management Act, Tahoe Science Program Project: <i>Predictive modeling of cheatgrass invasion risk for the Lake Tahoe Basin (Co-PI)</i>	\$71,100
2008	USDA Forest Service, Cleveland National Forest Project: <i>Postfire monitoring of conifer and hardwood regeneration after the 2003 Cedar Fire, San Diego County</i>	\$68,000
2008	USDA Forest Service, Lake Tahoe Basin Management Unit Project: <i>Vegetation, fuels, and tree survival monitoring, Angora Fire, Lake Tahoe Basin</i>	\$65,000
2006	CalTrout Project: <i>Golden Trout Wilderness meadow monitoring: Comparison of grazed and ungrazed sites</i>	\$8,000
2006	Joint Fire Science Program Project: <i>Restoring fire to endemic Cypress populations in northern California (Co-PI)</i>	\$98,000
2004	CalTrout/Orvis Golden Trout Habitat Restoration Initiative	

	Project: <i>Stream Condition Inventory of Golden Trout Wilderness streams: Comparison of grazed and ungrazed allotments.</i> (Includes \$30,345 procured from matching Federal Fish Habitat Restoration funds)	\$40,460
2003	National Fire Plan Project: <i>Postfire monitoring of old and young chaparral stands in the MacNally Fire, Sequoia National Forest, California.</i>	\$20,000
2001	National Fire Plan Project: <i>Serpentine habitats and fire: patterns of survival and regeneration in sensitive plant species and their application to postfire restoration planning.</i>	\$90,000
2000	Cowrote successful proposal to National Science Foundation; \$275,000 awarded to S. P. Harrison Project: <i>Regional and local diversity in an insular environment: Serpentine plants in California.</i>)	
1998	University of California University Grant Project: <i>Brazilian páramos: Geoecological studies in the campos de altitude.</i>	\$1,500
1996	University Research Expeditions Program (UREP), University of California-Berkeley, financial support for field research plus volunteer field help. Project: <i>Brazilian páramos: Geoecological studies in the campos de altitude.</i>	\$2,800
1994-1996	University of California Graduate Studies Fee Grant	

AWARDS-SCHOLARSHIPS-FELLOWSHIPS

- 2017-2019 Scholarship: Fulbright Global Award, for travel to France, Portugal, and Spain to study postfire restoration in Mediterranean ecosystems.
- 2017 Award: USDA Forest Service, Travel Gainsharing Award
- 2017 Award: USDA Forest Service, Washington Office International Programs, for support to Mediterranean Initiative and Middle Eastern Program
- 2016 Award: USDA Forest Service, Travel Gainsharing Award
- 2016 Award: Tahoe Regional Planning Agency, Best in Basin 2015 Award, to Lake Tahoe Basin Management Unit for Angora Fire Restoration Project Phase III. 19 total individuals awarded.
- 2015 Award: USDA Forest Service, Washington Office International Programs, for support to Mediterranean Initiative and Middle Eastern Program
- 2015 Award: USDA Forest Service, Travel Gainsharing Award
- 2014 Award: USDA Forest Service, Travel Gainsharing Award

- 2013 Award: USDA Forest Service, Travel Gainsharing Award
- 2013 Award: USDA Forest Service Pacific Southwest Region, quality salary-step increase for outstanding performance rating
- 2012 Award: US Department of Justice, Certificate of Commendation, for technical assistance to the USDOJ Environment and Natural Resources Division
- 2012 Award: USDA Forest Service Pacific Southwest Region, SPOT Award, for general support to Ecosystem management in Region 5
- 2012 Award: USDA Forest Service, Travel Gainsharing Award
- 2011 Award: USDA Forest Service, Washington Office International Programs, SPOT Award, for support to Middle Eastern Program
- 2011 Award: USDA Forest Service Pacific Southwest Region, SPOT Award, for input to Regional Ecological Restoration Statement of Intent
- 2010 Award: USDA Forest Service, Travel Gainsharing Award
- 2010 Award: USDA Forest Service, recognition for overall achievement in providing ecological support to land and resource management in the Pacific Southwest Region
- 2009 Award: USDA Forest Service, Travel Gainsharing Award
- 2008 Award: USDA Forest Service Pacific Southwest Region, SPOT Award, for support to the Sierra Nevada Forest Plan Amendment litigation
- 2008 Award: USDA Forest Service Pacific Southwest Region, recognition for outstanding accomplishment in support of the Storrie Fire litigation
- 2007 Award: USDA Forest Service Pacific Southwest Region, recognition for outstanding dedication and achievement, annual Vegetation Management Conference
- 2007 Award: USDA Forest Service, Special Service Award
- 2007 Award: USDA Forest Service, Travel Gainsharing Award
- 2006 Award: ESRI User Conference, San Diego, CA. First Place: Best Software Integration Project: *Spatially integrated reporting of environmental criteria for resource management: an example from Lake Tahoe*
Authors: N. E. Roth, J. H. Viers, M. R. Slaton, H. D. Safford
- 2005 Award: USDA Forest Service, Travel Gainsharing Award

2004 Award: USDA Forest Service, Travel Gainsharing Award

2003 Award: USDA Forest Service, Travel Gainsharing Award

2002 Award: USDA Forest Service, Travel Gainsharing Award

1999 Award: Graduate Studies Travel Award, University of California-Davis

1998-1999 Fellowship: Ecology Graduate Group Fellowship, University of California-Davis

1998 Scholarship: Jastro Research Scholarship, University of California-Davis
Project: *Brazilian páramos: Geoecological studies in the campos de altitude.*

1998 Award: University of California-Davis Graduate Research Award
Project: *Brazilian páramos: Geoecological studies in the campos de altitude.*

1998 Award: Association for Tropical Biology Travel Award

1997-1998 Fellowship: Tracy and Ruth Risdon Storer Fellowship, University of California-Davis

1997 Fellowship: Eisenhower Graduate Fellowship, University of California-Davis

1997 Scholarship: Jastro Research Scholarship, University of California-Davis
Project: *Brazilian páramos: Geoecological studies in the campos de altitude.*

1997 Award: University of California-Davis Graduate Research Award
Project: *Brazilian páramos: Geoecological studies in the campos de altitude.*

1996-1997 Fellowship: Ecology Graduate Group Fellowship, University of California-Davis

1994 Scholarship: California Native Plant Society, *Myrtle Wolf* Scholarship, for most outstanding graduate botanical research conducted in the greater East San Francisco Bay region. Project: *Woody vegetation and succession at the Garin Woods Ecological Field Station, California State University, Hayward, California.*

INVITED LECTURES-PRESENTED PAPERS-WEBINARS

June 5, 2018. *Uso do fogo no manejo de ecossistemas na Califórnia: reestabelecendo o elo perdido.*
Instituto Brasileiro do Meio-Ambiente e dos Recursos Naturais (IBAMA) and PREVFOGO,
Brasília, Brazil

- May 14, 2018. *Making fuels management compatible with restoration objectives in an age of global change: case studies from the US Mediterranean-climate zone*. 3rd Southern California Chaparral Symposium, Angeles National Forest, Arcadia, California.
- February 19, 2018. *Changements climatiques, forêts et incendies dans la Sierra Nevada, Californie, USA: implications pour la gestion actuelle et future des ressources*. Institut National de Recherche en Sciences et Technologies pour l'Environnement et l'Agriculture (IRSTEA), Aix-en-Provence, France.
- October 26, 2017. *The campos de altitude of southeastern Brazil: the ramifications of global change for conservation and management of a unique ecosystem*. University of California-Santa Cruz Arboretum, Ray Colette Lecture Series. UC-Santa Cruz, Santa Cruz, California.
- September 21, 2017. *Ecological science and Forest Service management in the Sierra Nevada: the fundamental role of agency-university collaborations*. University of Nevada, Reno, Nevada.
- April 18, 2017. *Cambio climático, bosques, y fuego en la Sierra Nevada, California, USA, y implicaciones para la actual y futuro gestión de recursos [Climate Change, Forests and Fire in the Sierra Nevada, California, and Implications for Current and Future Resource Management]*. Universidad de Castilla-La Mancha, Toledo, Spain.
- April 5, 2017. *Apoyo ecológico a la restauración y la gestión de fuego y combustibles en los Bosques Nacionales de California, USA [Ecological support to restoration and fire and fuel management in the California National Forests]*. Centro para la Investigación y Experimentación Forestal, Valencia, Spain.
- March 17, 2017. *An introduction to the world's Mediterranean climate regions and their susceptibility to global warming*. Escola Andorrana de Batxillerat, Sant Julià de Lòria, Andorra.
- March 16, 2017. *Apoyo ecológico a la gestión de fuego y combustibles en los Bosques Nacionales de California, USA*. Universidad de Barcelona, Facultad de Biología, Barcelona, Spain.
- February 23, 2017. *Valuing ecosystem services in chaparral-dominated watersheds of southern California*. Centre de Recerca Ecològica i Aplicacions Forestals (CREAF), Cerdanyola del Vallès, Spain.
- June 24, 2016. *Climas del pasado y del futuro en los campos de altitude: implicaciones para la conservación e gestión de recursos naturales en un ecosistema único [Past and Future Climates in the Campos de Altitude: Implications for Conservation and Resource Management in a Unique Environment]*. Instituto Alexander von Humboldt, Bogotá, Colombia.
- June 14, 2016. *Climate change, forests, and fire in California: implications for current and future resource management*. Universidade Estadual do Rio de Janeiro, Rio de Janeiro, Brazil.
- May 25, 2016. *The California Fire Science Consortium. Delivering fire science to the "Pyrostate"*. ForestFire 2016 Conference, Aix-en-Provence, France.
- April 27, 2016. *Past, present, and future in the forests of the Sierra Nevada: variability in forest response to environmental change, and management strategies to promote ecosystem resilience*. University of California-Merced, Merced, CA

- March 18, 2015. *Cambios climáticos, bosques, y fuego en la Sierra Nevada, California, EEUU*. Universidad de Barcelona, Barcelona, Spain.
- March 4, 2015. *Climate change, forests and fire in the Sierra Nevada, California*. “Save California: The Urgency to Restore Our Primary Watershed.” Summit meeting organized by the Sierra Nevada Conservancy, Sacramento, CA.
- January 15, 2015. *US-Mexico collaborative efforts in Mediterranean-zone fire and resource management*. California Native Plant Society Conservation Conference, San Jose, CA.
- October 15, 2014. *Deeply rooted in reality: bringing federal lands conservation and restoration into the 21st century*. Plenary address, Natural Areas Association annual conference, Dayton, OH.
- October 7, 2014. *Using conifer forests in Baja California, Mexico, as reference sites for restoration in Alta California, USA*. MEDECOS conference, Olmué, Chile.
- March 28, 2014. *Past, present, and future in the forests of the Sierra Nevada: variability in forest response to environmental change, and management strategies to promote ecosystem resilience*. University of Montana, Plum Creek Invited Lecture and Northwest Science Conference, Missoula, MT.
- March 19, 2014. *Climate change, forests, and fire in the Sierra Nevada, California: implications for resource management*. University of Athens, Athens, Greece.
- September 23, 2013. *Modern departures in fire severity and area vary by forest type in the Sierra Nevada*. Fire Ecology Seminar Series, University of California, Berkeley, CA.
- June 18, 2013. *Restoration and chaparral landscapes: Forest Service strategic goals and funding opportunities*. Southern California Chaparral Restoration Workshop, Arcadia, CA.
- May 27, 2013. *Esfuerzos de colaboración entre México y los USA en el manejo de los recursos naturales y el manejo del fuego en la zona mediterránea de Norteamérica [Collaborative efforts between the USA and Mexico in fire and resource management in the North American Mediterranean-zone]*. Meeting of the resource staffs of the Parques Nacionales Sierra de San Pedro Mártir and Constitución de 1857 and the Sierra de la Laguna Biosphere Reserve, PN Sierra de San Pedro Mártir, Baja California, Mexico.
- May 7, 2013. *Assessing the ecological effects of forest fuel treatments in the Sierra Nevada*. California Fuels Committee Annual Meeting, Sacramento, CA.
- April 12, 2013. *BRBNA: climate change, fire, and future vegetation conditions*. Blue Ridge-Berryessa Partnership Fire Restoration Workshop, Yountville, CA.
- February 21, 2013. *Change adaptation strategies*. Southern Sierra Nevada Climate Change Adaptation Workshop, Visalia, CA.
- December 6, 2012. *Sword and shield strategies in frequent-fire conifer forests of California*. 5th International Fire Ecology and Management Congress, Portland, OR.
- December 5, 2012. *Patterns in fire return interval departure (FRID) on federal forestlands in California, USA*. 5th International Fire Ecology and Management Congress, Portland, OR.
- November 8, 2012. *Fire regimes and ecological restoration in the Lake Tahoe Basin*. Northern California Prescribed Fire Council annual meeting, South Lake Tahoe, CA.
- October 9, 2012. *Climate change, forests, and fire in California’s Sierra Nevada*. Western International Forest Disease Work Conference, Granlibakken, CA.

- March 21, 2012. *Ecological restoration and global change*. Webinar presentation to USDA Forest Service Southern Region Climate Change Committee.
- January 25, 2012. *Making fuels management compatible with restoration objectives in an age of global change: case studies from the US Mediterranean-climate zone*. Conference on Climate Change and Forest Fires in the Mediterranean Basin: Management and Risk Reduction. Nir Ezion, Israel.
- December 1, 2011. *Climas do passado e do futuro nos campos de altitude: implicações para a conservação e gestão de recursos em um ecossistema único [Past and Future Climates in the Campos de Altitude: Implications for Conservation and Resource Management in a Unique Environment]*. 9th Annual National Park Science Meeting, Serra dos Órgãos National Park, Teresópolis, RJ, Brazil
- June 24, 2011. *Fire regimes and forest restoration in the Lake Tahoe Basin*. Tahoe Wildfire Summit, Granlibakken, CA.
- June 14, 2011. *Fire in ultramafic vegetation, California, USA*. 7th International Conference on Serpentine Ecology, Universidade de Coimbra, Coimbra, Portugal
- May 11, 2011. *Forest fuel treatments, climate change, and restoration: connecting the dots*. Forest Biology seminar series, University of California, Davis, CA
- March 17, 2011. *Managing fire and fuels in the Wildland-Urban Interface*. Presentation to Mt. Carmel Forest interagency postfire restoration group, Yoqne'am, Israel.
- February 22, 2011. *Climate change, forests, and fire: resource management in the California National Forests*. Conservation and Climate Change lecture series, University of Montana, Missoula, MT.
- April 27, 2010. *Climate change, fire and the National Forests: issues in current and future resource management in the California Central Coast Region*. California State University-Monterey Bay, Monterey, CA
- April 6, 2010. *As influências atuais e futuras do clima e do fogo sobre a gestão das Florestas Nacionais em California, USA: [The influences of climate and forest fire on current and future National Forest management in California, USA]*. Universidade do Estado do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.
- March 3, 2010. *Climate, forests, and fire: issues in current and future resource management in the California National Forests*. Biological Sciences lecture series, San Jose State University, San Jose, CA.
- February 10, 2010. *Ecological implications of future fire regimes in California*. Conference on Pre- and Post-Wildfire Forest Management For Ecological Restoration and Fire Resilience, Sacramento, CA.
- September 22, 2009. *The ecological effects of climate change in the eastern Sierra Nevada*. Evaluating Climate Change in the Eastern Sierra Nevada Symposium, Bishop, CA.
- September 11, 2009. *Martens and fishers in a changing climate*. 5th International Martes Symposium, Seattle, WA.
- March 18, 2009. *Protocolos del monitoreo para la agroforesteria: experiencias en Latinoamerica [Monitoring protocols for agroforestry: experiences in Latin America]*. Universidad Nacional de Asunción, Asunción, Paraguay.
- March 17, 2009. *Manejo del fuego: estudios de caso de Latinoamerica [Fire management: case studies from Latin America]*. Universidad Nacional de Asunción, Asunción, Paraguay.

- January 23, 2009. *Ecological and biomass effects of forest fuel thinning in the Angora Fire, Lake Tahoe Basin, California*. Forest carbon management symposium, California Interagency Forest Working Group, Davis, CA.
- December 3, 2008. *What role does fire suppression play in recent increases in fire activity, size and severity in the western United States?* Annual meeting of the Association for Fire Ecology, San Diego, CA.
- November 19, 2008. *Fuels treatments and their ecological effects: the Angora Fire as a case study*. Annual meeting of the California Pest Council, Woodland, CA.
- October 9, 2008. *Sistema Nacional de Manejo de Incidentes: Resultados da visita técnica do Serviço Florestal dos EUA [National incident management system: results of the technical visit of the US Forest Service team]*. Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis, Brasília, Brazil.
- April 28, 2008. *Restauración de áreas de bosques quemados en Paraguay [Restoration of burned forest areas in Paraguay]*. Asociación Rural de Paraguay, Asunción, Paraguay.
- February 29, 2008. *Tendências atuais em incêndios florestais na Serra Nevada, California, USA [Current trends in fire activity and severity, Sierra Nevada]*. Universidade de Coimbra, Coimbra, Portugal.
- August 10, 2007. *Effects of fuels treatments on fire severity in the Angora Fire and summary of regional patterns in fire severity*. Summer meeting of the Society of American Foresters, California Chapter, Placerville, CA.
- August 8, 2007. *Spatiotemporal trends in fire severity in the Sierra Nevada, California, 1984-2004*. Annual meeting of the Ecological Society of America, San Jose, CA.
- August 1, 2007. H. Behling, principal author; M. Oliveira, L. Dupont. *Late Quaternary vegetation, biodiversity, fire and climate dynamics in the Atlantic mountain region of eastern Brazil*. Annual meeting of the International Union for Quaternary Research, Cairns, Australia
- November 14, 2006. *Southern California and fire: a separate reality*. 3rd International Fire Ecology and Management Congress, San Diego, CA.
- May 27, 2006. *Taxonomic and geographic patterns in the serpentine endemic flora of California, USA*. 5th International Conference on Serpentine Ecology, Università di Siena, Siena, Italy.
- May 5, 2006. S. Dobrowski, principal author; S. Ustin. *Incorporating Ecological Context into Object Oriented Vegetation Classification through Regression Based Distribution Modeling*. Annual meeting of the American Society for Photogrammetric Engineering and Remote Sensing, Reno, NV.
- January 28, 2006. *Power Fire restoration: Development of historical reference conditions and applications to restoration planning*. Annual meeting of the Society of American Foresters, California and Intermountain Chapters, Reno, NV
- April 21, 2005. *Vegetation and Fire Regime Condition Class in the North Fork Middle Fork American River watershed*. American River Watershed Conference, Sacramento State University, Sacramento, CA.
- October 14, 2004. *Fire, water and four-wheelin': Contemporary issues in Research Natural Area management in California*. Annual meeting of the Natural Areas Association, Chicago, IL.
- August 5, 2004. *Seeing the forest and the trees: Ecology and land management in the National Forest System*. Annual meeting of the Ecological Society of America, Portland, OR.
- July 2, 2003. *Grazing and invasion in roadside plant communities: Interactions with habitat productivity*

- and evolutionary history.* Monterey Pine Forest Ecology Cooperative, Carmel, CA.
- April 23, 2003. *Disturbance ecology of ultramafic vegetation in California and implications for management.* 4th International Conference on Serpentine Ecology, Jardín Botánico Nacional, Havana, Cuba.
- December 7, 2002. *Plant species diversity in California serpentines: Regional patterns and possible causative factors.* Annual State meeting, California Native Plant Society, University of California, Berkeley, CA.
- December 5, 2002. *The effects of fire on serpentine vegetation and implications for management.* Annual meeting of the Association for Fire Ecology, San Diego, CA.
- November 23, 2002. *Disturbance ecology of serpentine habitats and implications for management.* Department of Environmental Science and Policy, University of California, Davis, CA.
- November 4, 2002. *Patterns of plant species diversity in the serpentine flora of the Sierra Nevada.* California Native Plant Society, Chico, CA.
- October 30, 2002. *Geoecology: Historical roots and contemporary practice.* Annual meeting of the Geological Society of America, Denver, CO.
- October 9, 2002. C. Millar, principal author. *Research Natural Areas in the Sierra Nevada bioregion Contribution to biodiversity conservation and opportunities for research.* Sierra Nevada Science Symposium, Kings Beach, CA.
- June 15, 2002. *Botany and geoecology of northern Sierra Nevada serpentines.* Joint field workshop, Chico State University Herbarium and Plumas National Forest, N. Fork Feather River, California.
- March 19, 2002. *Plant species diversity in California serpentine: Regional patterns and possible causative factors.* California Native Plant Society, Fresno, CA.
- February 20, 2002. H. Behling, principal author. *Paläoökologische Studien in den tropischen Gebirgsregionen Südostbrasiens [Paleoecological studies in the tropical mountains of southern Brazil].* Annual meeting of the Gesellschaft für Tropenökologie, Göttingen, Germany.
- August 8, 2001. *Fire effects on plant diversity in serpentine versus nonserpentine chaparral and grassland.* Annual meeting of the Ecological Society of America, Madison, WI.
- August 6, 2000. *Ungrazed road verges in a grazed landscape: Interactive effects of grazing, invasion and substrate on grassland diversity.* Annual meeting of the Ecological Society of America, Snowbird, UT.
- March 24, 1999. *Geoecological studies in the tropical highlands of southeastern Brazil.* Annual meeting of the American Association of Geographers, Honolulu, HI.
- October 20, 1998. *Páramos brasileiros: Estudos geoecológicos en los campos de altitude.* [Brazilian páramos: Geoecological studies in the campos de altitude]. VII Congreso Latinoamericano de Botánica, Mexico City, Mexico.
- August 4, 1998. *Conflagration in the campos de altitude: Patterns and rates of postfire regeneration in the Brazilian páramos.* Annual meeting of the Association for Tropical Biology, Baltimore, MD.
- September 7, 1997. *Formas de vida e evolução convergente em sistemas tropic-alpinas.* [Life forms and convergent evolution in tropical alpine ecosystems]. Universidade do Estado de Minas Gerais, Carangola, MG, Brazil.
- September 6, 1997. *Geografia, geologia, e climatologia das terras altas do sudeste do Brasil.*

[*Geography, geology, and climatology of the southeastern Brazilian Highlands*]. Universidade do Estado de Minas Gerais, Carangola, MG, Brazil.

September 9, 1996. *Ecologia e biogeografia dos campos de altitude do sudeste do Brasil*. [*Ecology and biogeography of the campos de altitude of southeastern Brazil*]. Universidade do Estado do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

SERVICE-LEADERSHIP ACTIVITIES

- 2001-present Regional Ecology Program Manager, USDA-Forest Service, Pacific Southwest Region
- 2001-present Chairperson, Regional Research Natural Area Committee, USDA-Forest Service, Pacific Southwest Region
- 2015-present Associate editor, *Natural Areas Journal*
- 2012-present Member, Advisory Board, University of California Center for Fire Research and Outreach
- 2012-present Member, Science Advisory Committee, Point Blue Conservation Science
- 2011-present Sierra Nevada region director, California Fire Science Consortium
- 2011-present US Forest Service liaison to the executive board, Natural Areas Association
- 2018 Conference organizing committee co-chair, *Living with Fire in California's Coast Ranges: Promoting Fire-Resilient Communities and Landscapes in an Era of Global Change*, Sonoma State University, Rohnert Park, CA
- 2018 Member, organizing committee, 3rd Southern California Chaparral Symposium, Arcadia, CA
- 2015-2016 Conference chair, Natural Areas Conference: *Climate Change Adaptation and Natural Resources Management: Turning Words to Action*, University of California-Davis, CA
- 2015 Chaired organizing committee for Southern California Chaparral Ecosystem Services Symposium, Arcadia, CA
- 2013 Chaired organizing committee for Southern California Chaparral Restoration Workshop, Arcadia, CA
- 2011 Member, organizing committee, MEDECOS XII conference, Los Angeles, CA
- 9/2011 Organized and presided at two organized oral sessions at 2011 MEDECOS XII conference, Los Angeles, CA: *Topics in ecosystem management in the Mediterranean-climate zone of*

México; Restoration in Mediterranean-climate ecosystems: linking science and management in an era of global change

2011-2016	Member, US Forest Service Pacific Southwest Region Climate Change Integration Team
2009-2013	Member, Regional Interdisciplinary Team for Forest Plan Revision, USDA-Forest Service Pacific Southwest Region
12/2008	Coorganized and presided at organized oral session at 2008 Association for Fire Ecology annual meeting, San Diego, CA: <i>The ecological and environmental effects of fire suppression.</i>
2008-2011	Member, North American Forest Commission, Watershed Working Group
11/2008	Organized and presided at topical session at 2008 California Pest Council annual meeting, Woodland, CA: <i>The status of forests in the Lake Tahoe Basin.</i>
2006-2012	Coach, American Youth Soccer Organization, Davis, CA
2006-2008	Chairperson, Regional Vegetation Information Steering Committee, USDA-Forest Service, Pacific Southwest Region
8/2004	Coorganized and presided at organized oral session at 2004 Ecological Society of America annual meeting, Portland, OR: <i>From idea to reality: Applied science and ecological problem solving in the National Forest System.</i>
2002-2007	Chairperson, National Association of Regional Vegetation Ecologists, USDA-Forest Service
10/2002	Coorganized and presided at topical session at 2002 Geological Society of America annual meeting, Denver, CO: <i>Geoecology: The emergence of an old concept to solve problems in the 21st century.</i>
6/2002	Coorganized and directed field workshop <i>Botany and geoecology of northern Sierra Nevada serpentines</i> , sponsored by Chico State University Herbarium and US-Forest Service, Plumas National Forest.
2002-2004	Regional Coordinator, Natural Resource Information System – TERRA module, US-Forest Service, Pacific Southwest Region
2001-2003	Member, Regional Vegetation Mapping Team, US-Forest Service, Pacific Southwest Region
1993-1994	Member, Garin Woods Ecological Field Station steering committee, California State

University, Hayward, CA

- 1992-1993 Group Leader, Science and Mathematics Department accreditation committee, Escola Americana de Brasília, Brasília, Brazil
- 1990-1993 Head Coach, Varsity Women's Basketball, Escola Americana de Brasília, Brasília, Brazil.
- 1987-1988 Member, Science Department accreditation committee, Bishop O'Dowd High School, Oakland, CA
- 1986-1989 Director, Ski Club, Bishop O'Dowd High School, Oakland, CA
- 1986-1987 Faculty advisor, Junior Statesmen of America, Bishop O'Dowd High School, Oakland, CA

STUDENTS ADVISED*

<u>Student</u>	<u>Degree</u>	<u>Year</u>	<u>Institution</u>	<u>Current position</u>
Solomon Dobrowski	Ph.D.	2007	UC-Davis	Assistant Professor, University of Montana
Tim Kuhn	M.S.	2007	UC-Davis	Biologist, Yosemite National Park
Brian Levine	M.S.	2009	UC-Berkeley	Fire management, Australia
Erik Frenzel	M.S.	2011	UC-Davis	Biologist, Sequoia-Kings Canyon National Park
Chris Mallek	Ph.D.	2011	UC-Davis	Fire ecologist, US Forest Service
Chris Dolanc	Ph.D.	2011	UC-Davis	Assistant Professor, Mercyhurst University
Sarah Dalrymple	Ph.D.	2013	UC-Davis	Assistant Professor, University of Arizona
Jens Stevens	Ph.D.	2013	UC-Davis	Postdoctoral researcher, UC-Berkeley
Kevin Welch	Ph.D.	2013	UC-Davis	Self-employed
Mila Hickenbottom	M.S.	2014	UC-Davis	Environmental consultant, Driggs, Idaho
Melissa DeSiervo	M.S.	2014	Humboldt St Univ.	PhD student, Dartmouth University
Gabrielle Bohlman	M.S.	2015	UC-Davis	Ecologist, US Forest Service
Hiram Rivera Huerta	Ph.D.	2016	Universidad Autónoma de Baja California	Postdoctoral researcher
Erin Alvey	M.S.	2016	Humboldt St Univ.	GIS specialist, Spatial Informatics Group
Clark Richter	Ph.D.	2018	UC-Davis	(Co-advised with Marcel Rejmanek)
Zack Steel	Ph.D.	2018	UC-Davis	
Jonah Weeks	M.S.	2018	UC-Davis	
Tara Ursell	Ph.D.	2021	UC-Davis	(Co-Advised with Jim Sanchirico)
Emily Brodie	M.S.	2020	UC-Davis	
Sarah Winsemius	Ph.D.	2022	UC-Davis	(Co-advised with Yufang Jin)

*Until 2014, the nature of my affiliation with UC-Davis did not allow me to serve as a major professor. Before 2014 students listed are those for whom I served on their thesis committee, where their thesis project was directly related to Forest Service management issues, and where I played a central role in

obtaining project funding.

POSTGRADUATE RESEARCHERS SUPERVISED

<u>Researcher</u>	<u>Degree</u>	<u>Year(s)</u>	<u>Current position</u>
Carrie Levine	Ph.D.	2017-present	
Jesse Miller	Ph.D.	2016-present	
Rebecca Wayman	M.S.	2015-present	
Christina Restaino	Ph.D.	2014-2018	Forest management program officer, Tahoe Regional Planning Agency
Gabrielle Bohlman	M.S.	2016-2017	Ecologist, US Forest Service, Klamath National Forest
Chris Dolanc	Ph.D.	2012-2014	Assistant Professor, Mercyhurst University
Zack Steel	M.S.	2012-2014	PhD student at UC-Davis
Chris Mallek	Ph.D.	2011-2012	Fire ecologist, US Forest Service, Mendocino Nat. Forest
Sam Veloz	Ph.D.	2008-2009	Quantitative ecologist, Point Blue Conservation Science

LANGUAGE SKILLS

Full fluency: English, German, Portuguese, Spanish

Semifluency: Italian, French, Swedish

Survival skills: Bahasa Indonesia, Hindi (spoken only)

PROFESSIONAL AFFILIATIONS

- Association for Fire Ecology
- American Geophysical Union
- American Institute for Biological Sciences
- Association for Tropical Biology
- California Botanical Society
- Ecological Society of America
- Geological Society of America
- International Society of Serpentine Ecologists
- Natural Areas Association
- Society for Conservation Biology
- Society for Restoration Ecology

MANUSCRIPTS REVIEWED

- *Biotropica*
- *Biological Invasions*
- *Botanical Journal of the Linnean Society*
- *Diversity and Distributions*
- *Ecology*
- *Ecology Letters*

- *Ecological Applications*
- *Ecological Modelling*
- *Ecosphere*
- *Fire Ecology*
- *Forest Ecology and Management*
- *Frontiers in Ecology and the Environment*
- *Global Change Biology*
- *International Journal of Wildland Fire*
- *Journal of Applied Ecology*
- *Journal of Biogeochemistry*
- *Journal of Biogeography*
- *Journal of Environmental Management*
- *Journal of Vegetation Science*
- *Madroño*
- *Mountain Research and Development*
- *Natural Areas Journal*
- *Northeastern Naturalist*
- *Oecologia*
- *Oecologia Australis*
- *Palaeoecology – Data and Modelling*
- *Perspectives in Plant Ecology, Evolution and Systematics*
- *Plant and Soil*
- *Plant Ecology*
- *Plant Ecology and Diversity*
- *Revista Brasileira de Botânica*
- *Trends in Ecology and Evolution*
- *Vegetatio*
- *Western North American Naturalist*