

John T. Abatzoglou

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| EDUCATION | University of California, Irvine , Irvine, CA Ph.D., Earth System Science | August 2006 |
| | University of California, Davis , Davis, CA B.S. Atmospheric Science | June 2000 |
| PROFESSIONAL EXPERIENCE | Professor, Management of Complex Systems <i>University of California, Merced</i> | Jul. 2022 - present |
| | Associate Professor, Management of Complex Systems <i>University of California, Merced</i> | Feb. 2020 - Jun. 2022 |
| | Associate Professor, Department of Geography <i>University of Idaho</i> | Aug. 2014 - Jun 2020 |
| | Assistant Professor, Department of Geography <i>University of Idaho</i> | Aug. 2009 - Jul. 2014 |
| | Assistant Professor, Department of Meteorology <i>San Jose State University</i> | Aug. 2008 - Aug. 2009 |
| | Postdoctoral Fellow <i>Desert Research Institute: advisor Dr. Kelly Redmond</i> | Aug. 2006 - Jun 2008 |
| | Graduate Research Assistant <i>University of California, Irvine: advisor Dr. Gudrun Magnusdottir</i> | Sep. 2001 - Aug. 2006 |
| AWARDS | Highly Cited Researchers: | 2019-2022 |
| | Mid Career Faculty Award, University of Idaho: | 2016 |
| | International Journal of Climatology Prize: | 2015 |
| | Outstanding Early Career Faculty Award, College of Science: | 2012 |
| REFEREED PUBLICATIONS | 245. Ptak, T., Radil, S.M., J.T. Abatzoglou and Brooks, J., 2024. Coupling fire and energy in the Anthropocene: Deploying scale to analyze social vulnerability to forced electricity outages in California. <i>Energy Research and Social Science</i> , 112, p.103519. | |
| | 244. Bloem S, Cullen A.C., J.T. Abatzoglou , Mearns L.O., Belval E. 2024, Drivers of international fire management personnel deployed to the United States. <i>International Journal of Wildland Fire</i> 33, WF23093. | |
| | 243. Moyers K, J.T. Abatzoglou Escriva-Bou A, Medellín-Azuara J, Viers JH, 2024, An invisible water surcharge: Climate warming increases crop water demand in the San Joaquin Valley's groundwater-dependent irrigated agriculture. <i>PLOS Water</i> 3(3): e0000184 | |
| | 242. Novick, K.A., Ficklin, D.L., Grossiord, C., Konings, A.G., Martínez-Vilalta, J., Sadok, W. A.T. Trugman, A.P. Williams, A.J. Wright, J.T. Abatzoglou , M.P. Dannenberg, P. Gentine, K. Guan, M.R. Johnson, L.E. Lowman, D.J.P. Moore, N.G. McDowell, 2024, The impacts of | |

- rising vapour pressure deficit in natural and managed ecosystems. *Plant, Cell & Environment*, 1–29.
241. Seamon, E., P.E. Gessler, **J.T. Abatzoglou**, P. W. Mote, S.S. Lee, 2023, Climatic Damage Cause Variations of Agricultural Insurance Loss for the Pacific Northwest Region of the United States, *Agriculture*, 13(12), 2214
 240. Swain, D.L., **J.T. Abatzoglou**, Kolden, C. , Shive, K., Kalashnikov, D.A., Singh, D., Smith D, 2023, Climate change is narrowing and shifting prescribed fire windows in western United States. *Commun Earth Environ* 4, 340, <https://doi.org/10.1038/s43247-023-00993-1>
 239. Lee, S., **J.T. Abatzoglou**, 2023, Effects of water surplus on prevented planting in the US Corn Belt for corn and soybeans, *Environmental Research Communications*, 5,9
 238. Jiao A, Sun Y, Avila C, Chu V, Slezak J, Sacks DA, **J.T. Abatzoglou**, Molitor J, Chen J-C, Benmarhnia T, Getahun D, Wu J, 2023, Analysis of Heat Exposure During Pregnancy and Severe Maternal Morbidity. *JAMA Netw Open*. 2023;6(9):e2332780. doi:10.1001/jamanetworkopen.2023
 237. Modaresi Rad, A., **Abatzoglou, J.T.**, Kreitler, J., Alizadeh, M.R., AghaKouchak, A., Hudyma, N., Nauslar, N.J. and Sadegh, M., 2023. Human and infrastructure exposure to large wildfires in the United States. *Nature Sustainability*, pp.1-9.
 236. Kalashnikov, D. A. **J.T. Abatzoglou**, P. C. Loikith, N.J. Nauslar, Y. Berkris, D. Singh, 2023, Lightning-Ignited Wildfires in the Western United States: Ignition Precipitation and Associated Environmental Conditions, *Geophysical Research Letters*, 50(16), p. e2023GL103785. doi: <https://doi.org/10.1029/2023GL103785>.
 235. Jenkins, J.S., **J.T. Abatzoglou**, D.E. Rupp, E.Fleishman, 2023, Human and climatic influences on wildfires ignited by recreational activities in national forests in Washington, Oregon, and California, *Environmental Research Communications*, 5(9), 095002. 2515-7620
 234. Jenkins JS, **Abatzoglou JT**, Wilkins EJ, Perry EE (2023) Visitation to national parks in California shows annual and seasonal change during extreme drought and wet years. *PLOS Clim* 2(8): e0000260.
 233. Turco, M, 2023, **J.T. Abatzoglou**, S. Herrera, Y. Zhuang, S. Jerez, D.D. Lucas, A. AghaKouchak, I. Cvijanovic, Anthropogenic climate change impacts exacerbate summer forest fires in California, *Proceedings of the National Academy of Sciences*. , 120(25), p. e2213815120. doi: 10.1073/pnas.2213815120
 232. **Abatzoglou, J. T.** , Kolden, C.A., Williams, A.P., Sadegh, M., Balch, J.K., Hall, A., 2023, Downslope Wind-Driven Fires in the Western United States, *Earth's Future*, 11(5), p. e2022EF003471.
 231. Dahl, K. A. , **J.T. Abatzoglou**, C.A. Phillips, J.P., Ortiz-Partida, R. Licker, L.D. Merner, B. Ekwurzel, 2023, Quantifying the contribution of major carbon producers to increases in vapor pressure deficit and burned area in western US and southwestern Canadian forests, *Environmental Research Letters*. IOP Publishing, 18(6), p. 64011.
 230. Alizadeh, M. R. , **Abatzoglou, J. T**, Adamowski, J., Modaresi Rad, A., AghaKouchak, A., Pausata, FSR, Sadegh, M., 2023, Elevation-dependent intensification of fire danger in the western United States, *Nature communications*. Nature Publishing Group UK London, 14(1), p. 1773.
 229. Jenkins, J. S., **Abatzoglou, J. T.** and Peterson, B. A. , 2023, Spring Snowpack Influences on the Volume and Timing of Spring and Peak-Season Overnight Visitation to Yosemite Wilderness, *Weather, Climate, and Society*, 15(2), pp. 365–379.
 228. Schantz, M. C. , Hardegree, S.P, James, J.J, Becchetti, T., **Abatzoglou, J. T.**, Hegewisch,* K.C, 2023, Evaluating Multimodel Ensemble Seasonal Climate Forecasts on Rangeland Plant Production in the California Annual Grassland, *Rangeland Ecology and Management*. Elsevier, 88, pp. 135–142.
 227. **Abatzoglou, J.T.**, McEvoy, D.J., Nauslar, N.J., Hegewisch, K.C. * and Huntington, J.L., 2023. Downscaled subseasonal fire danger forecast skill across the contiguous United States. *Atmospheric Science Letters*, p.e1165.

226. Heeter, K.J., Harley, G.L., **J.T. Abatzoglou**, Anchukaitis, K.J., Cook, E.R., Coulthard, B.L., Dye, L.A. and Homfeld, I.K., 2023. Unprecedented 21st century heat across the Pacific Northwest of North America. *npj Climate and Atmospheric Science*, 6(1), p.5.
225. Ren, J., Hanan, E.J., Hicke, J.A., Kolden, C.A., **J.T. Abatzoglou**, Tague, C.N.L., Bart, R.R., Kennedy, M.C., Liu, M. and Adam, J.C., 2023. Bark beetle effects on fire regimes depend on underlying fuel modifications in semiarid systems. *Journal of Advances in Modeling Earth Systems*, 15(1), p.e2022MS003073.
224. Cullen, A.C., Prichard, S.J., **Abatzoglou, J.T.**, Dolk, A., Kessenich, L., Bloem, S., Bukovsky, M.S., Humphrey, R., McGinnis, S., Skinner, H. and Mearns, L.O., 2023. Growing convergence research: Coproducing climate projections to inform proactive decisions for managing simultaneous wildfire risk. *Risk analysis*.
223. Jiao, A., Sun, Y., Sacks, D.A., Avila, C., Chiu, V., Molitor, J., Chen, J.C., Sanders, K.T., **Abatzoglou, J.T.**, Slezak, J. and Benmarhnia, T., 2023. The role of extreme heat exposure on premature rupture of membranes in Southern California: A study from a large pregnancy cohort. *Environment International*, 173, p.107824.
222. Parks, S.A., Holsinger, L.M., **Abatzoglou, J.T.**, Littlefield, C.E. and Zeller, K.A., 2023. Protected areas not likely to serve as steppingstones for species undergoing climate-induced range shifts. *Global Change Biology*.
221. Seamon, E., Gessler, P., **J.T. Abatzoglou**, Mote, P., Lee, S. ., 2023, A climatic random forest model of agricultural insurance loss for the Northwest United States. *Environmental Data Science*, 1, E29. doi:10.1017/eds.2022.27
220. Shinneman, D.J., Strand, E.K., Pellant, M., **J.T. Abatzoglou**, Brunson, M.W., Glenn, N.F., Heinrichs, J.A., Sadegh, M. and Vaillant, N.M., 2023. Future Direction of Fuels Management in Sagebrush Rangelands. *Rangeland Ecology and Management*, 86, pp.50-63.
219. Kalashnikov, D.A., **J.T. Abatzoglou**, N.J. Nauslar, D.L. Swain, D. Touma, D. Singh, 2022, Meteorological and geographical factors associated with dry lightning in central and northern California, *Environmental Research: Climate*, 1,025001
218. Wei, L. , H. Zhou, A.T.Hudak, T.E.Link, A.Marshal, K.L.Kavanagh, **J.T. Abatzoglou**, T.B.Jain, J.C.Byrne, R. Denner, P.A.Fekety, J.Sandquist, X.Yu, J.D.Marshall, 2022, White pine blister rust, logging, and species replacement increased streamflow in a montane watershed in the northern Rockies, USA, *Journal of Hydrology*, 612, p. 128230.
217. Sofaer, H.R., Jarnevich, C.S., Buchholtz, E.K. B.S. Cade, **J.T. Abatzoglou**, C.L. Aldridge, P.J. Comer, D. Manier, L.E. Parker, J.A. Heinrichs, 2022, Potential cheatgrass abundance within lightly invaded areas of the Great Basin. *Landsc Ecol* <https://doi.org/10.1007/s10980-022-01487-9>
216. Lute,* A.C., **J.T. Abatzoglou**, and Link, T., 2022. SnowClim v1. 0: high-resolution snow model and data for the western United States. *Geoscientific Model Development*, 15(13), pp.5045-5071.
215. Zubkova, M., Boschetti, L., **J.T. Abatzoglou**, and Giglio, L., Fire regions as environmental niches: a new paradigm to define potential fire regimes in Africa and Australia. *Journal of Geophysical Research: Biogeosciences*, p.e2021JG006694.
214. Sharma, A.R., Jain, P., **J.T. Abatzoglou**, and Flannigan, M., 2022. Persistent positive anomalies in geopotential heights promote wildfires in western North America. *Journal of Climate*, pp.1-41. <https://doi.org/10.1175/JCLI-D-21-0926.1>
213. Anderegg, W.R., Chegwiddden, O.S., Badgley, G., Trugman, A.T., Cullenward, D., **J.T. Abatzoglou**, Hicke, J.A., Freeman, J. and Hamman, J.J., 2022. Future climate risks from stress, insects and fire across US forests. *Ecology Letters*. <https://doi.org/10.1111/ele.14018>
212. Dong, C., Williams, A.P., **J.T. Abatzoglou**, Lin, K., Okin, G.S., Gillespie, T.W., Long, D., Lin, Y.H., Hall, A. and MacDonald, G.M., 2022. The season for large fires in Southern California is projected to lengthen in a changing climate. *Communications Earth & Environment*, 3(1), pp.1-9.

211. Bloem, S., Cullen, A.C., Mearns, L.O. and **J.T. Abatzoglou**, 2022. The Role of International Resource Sharing Arrangements in Managing Fire in the Face of Climate Change. *Fire*, 5(4), p.88.
210. Jones, M.W., **J.T. Abatzoglou**, Veraverbeke, S., Andela, N., Lasslop, G., Forkel, M., Smith, A.J., Burton, C., Betts, R.A., van der Werf, G.R. and Sitch, S., 2022. Global and regional trends and drivers of fire under climate change. *Reviews of Geophysics*, p.e2020RG000726.
209. Parks, S.A., Holsinger, L.M., Littlefield, C.E., Dobrowski, S.Z., Zeller, K.A., **J.T., Abatzoglou**, Besancon, C., Nordgren, B.L. and Lawler, J.J., 2022. Efficacy of the global protected area network is threatened by disappearing climates and potential transboundary range shifts. *Environmental Research Letters*, 17(5), p.054016.
208. Hammond, W.M., Williams, A.P., **J.T. Abatzoglou**, Adams, H.D., Klein, T., López, R., Sáenz-Romero, C., Hartmann, H., Breshears, D.D. and Allen, C.D., 2022. Global field observations of tree die-off reveal hotter-drought fingerprint for Earth's forests. *Nature Communications*, 13(1), 1-11
207. Hessilt, T.D., **J.T. Abatzoglou**, Y. Chen, J.T. Randerson, R.C. Scholten, G. van der Werf, S. Veraverbeke, 2022, Future increases in lightning ignition efficiency and wildfire occurrence expected from drier fuels in boreal forest ecosystems of western North America, *Environmental Research Letters*, in press
206. Albano, C.M., **J.T. Abatzoglou**, D.J. McEvoy, J.L. Huntington, C.G. Morton, M.D. Dettnger, T.J. Ott, 2022, A Multidataset Assessment of Climatic Drivers and Uncertainties of Recent Trends in Evaporative Demand across the Continental United States, *J. Hydrology*, 23,4, 505-519
205. Ren, J., Hanan, E.J., **J.T. Abatzoglou**, Kolden, C.A., Tague, C.N.L., Kennedy, M.C., Liu, M. and Adam, J.C., 2022. Projecting future fire regimes in a semiarid watershed of the inland northwestern United States: Interactions among climate change, vegetation productivity, and fuel dynamics. *Earth's Future*, 10(3), p.e2021EF002518
204. Hawkins, L. R. , **J.T. Abatzoglou**, S. Li, D. E. Rupp, 2022, Anthropogenic Influence on Recent Severe Autumn Fire Weather in the West Coast of the United States, *Geophysical Research Letters*, 49(4). doi: 10.1029/2021GL095496.
203. Alizadeh, M. R. , **J.T. Abatzoglou**, J.F. Adamowski, J.P. Prestemon, B. Chittoori, A. Akbari Asanjan, M. Sadegh, 2022, Increasing Heat-Stress Inequality in a Warming Climate', *Earth's Future*, 10(2). doi: 10.1029/2021EF002488.
202. Modaresi Rad, A. , J. Kreitler, **J.T. Abatzoglou**, K. Fallon, K.R. Roche, M. Sadegh, 2022, Anthropogenic stressors compound climate impacts on inland lake dynamics: The case of Hamun Lakes, *Science of the Total Environment*, 829. doi: 10.1016/j.scitotenv.2022.154419.
201. Balch, J. K., **J.T. Abatzoglou**, M.B. Joseph, Koontz, M.J., Mahood, A.L., McGlinchy, J., Cattau, M.E., Williams, A.P., 2022, Warming weakens the night-time barrier to global fire, *Nature*, 602(7897)
200. Juang, C. S. , A.P. Williams, **J.T. Abatzoglou**, J.K. Balch, M.D. Hurteau, M.A., Moritz, 2022, Rapid Growth of Large Forest Fires Drives the Exponential Response of Annual Forest-Fire Area to Aridity in the Western United States, *Geophysical Research Letters*, 49(5). doi: 10.1029/2021GL097131.
199. **Abatzoglou, J. T.** , 2022, Precipitation Dependence of Temperature Trends Across the Contiguous US, *Geophysical Research Letters*, 49(4). doi: 10.1029/2021GL095414.
198. Parker, L.E., N. Zhang, **J.T. Abatzoglou**, S. M. Ostoja, T. B. Pathak, 2022, Observed Changes in Agroclimate Metrics Relevant for Specialty Crop Production in California, *Agronomy*, 1, 205
197. Licker, R., K. Dahl, **J.T. Abatzoglou**, 2022, Quantifying the impact of future extreme heat on the outdoor work sector in the United States, *Elementa*, 10,1
196. Kalashnikov,, D.A., J.L. Schnell, **J.T. Abatzoglou**, D.L. Swain, D. Singh, 2022, Increasing co-occurrence of fine particulate matter and ground-level ozone extremes in the western United States. *Science Advances*, 8 (1) DOI: 10.1126/sciadv.abi9386

195. **Abatzoglou, J.T.**, Battisti, D.S., Williams, A.P., W.D. Hansen, B.J. Harvey, C.A. Kolden, 2021, Projected increases in western US forest fire despite growing fuel constraints. *Commun Earth Environ* 2, 227
194. Davis SC, **J.T. Abatzoglou**, LeBauer DS. 2021, Expanded Potential Growing Region and Yield Increase for *Agave americana* with Future Climate. *Agronomy* 11(11):2109
193. Dobrowski, S.Z., Littlefield, C.E., Lyons, D.S., Hollenberg, C., Carroll, C., Parks, S.A., **J.T. Abatzoglou**, K. Hegewisch*, J. Gage, 2021, Protected-area targets could be undermined by climate change-driven shifts in ecoregions and biomes. *Commun Earth Environ* 2, 198
192. Heeter, K.J., Harley, G.L., Maxwell, J.T., Wilson, R.J., **J.T. Abatzoglou**, Rayback, S.A., Rochner, M.L., Kitchens, K.A., 2021, Summer temperature variability since 1730 CE across the low-to-mid latitudes of western North America from a tree ring blue intensity network. *Quat. Sci. Rev.* 267, 107064
191. McCullum, A.J.K., McClellan, C., Daudert, B., Huntington, J., Green, R., Ly, V., Marley, A.R.G., Tulley, N.R., Morton, C., Hegewisch, K.C.*, **J.T. Abatzoglou**, and McEvoy, D.. 2021. Satellite-Based Drought Reporting on the Navajo Nation. *Journal of the American Water Resources Association* 57(5): 675– 691
190. Ren, J., Adam, J. C., Hicke, J. A., Hanan, E. J., Tague, C. L., Liu, M., Kolden, C. A., and **J.T. Abatzoglou**, 2021, How does water yield respond to mountain pine beetle infestation in a semiarid forest?, *Hydrol. Earth Syst. Sci.*, 25, 4681–4699
189. Clark, S., Mills, G., Brown, T., Harris, S. **J.T. Abatzoglou**, 2021, Downscaled GCM climate projections of fire weather over Victoria, Australia. Part 1: evaluation of the MACA technique. *Int. J. Wildl. Fire*, in press
188. Gershunov A, J Guzman Morales, B Hatchett, K Guirguis, R Aguilera, T Shulgina, **JT Abatzoglou**, D Cayan, D Pierce, AP Williams, I Small, R Clemesha, L Schwarz, T Benmarhnia, A Tardy, 2021, Hot and cold flavors of southern California’s Santa Ana winds: their causes, trends, and links with wildfire. *Climate Dynamics*, in press
187. Clark S, G. Mills, TJ Brown, S Harris, **J.T. Abatzoglou**, 2021, Downscaled GCM climate projections of fire weather over Victoria, Australia. Part 2: a multi-model ensemble of 21st century trends. *International Journal of Wildland Fire*, <https://doi.org/10.1071/WF20175>
186. Barros AMG, Day MA, Preisler HK, **JT Abatzoglou**, Krawchuk MA, Houtman R, Ager AA, 2021, Contrasting the role of human- and lightning-caused wildfires on future fire regimes on a Central Oregon landscape. *Environmental Research Letters*, 16(6):64081. <https://doi.org/10.1088/1748-9326/ac03da>
185. Alizadeh, M.R., **J.T. Abatzoglou**, C.H. Luce, J. Adamowski, A. Farid, M. Sadegh, 2021, Warming Enabled Upslope Advance in Western U.S. Forest Fires, *PNAS*, 118 (22)
184. Wang X, D.C. Schlatter, D.A. Glawe, C.G. Edwards, D.M. Weller, T.C. Paulitz, **J.T. Abatzoglou**, P.A. Okubara, 2021 Native yeast and non-yeast fungal communities of Cabernet Sauvignon berries from two Washington State vineyards, and persistence in spontaneous fermentation. *International Journal of Food Microbiology*, 109225.
183. **Abatzoglou, J.T.**, D.E. Rupp, L.W. O’Neill, M. Sadegh, 2021, Compound extremes drive the western Oregon wildfires of September 2020, *Geophysical Research Letters*, e2021GL092520
182. Anderegg W.R.L., **J.T. Abatzoglou**, L.D.L. Anderegg, L. Bielory, P.L. Kinney, L. Ziska, 2021, Anthropogenic climate change is worsening North American pollen seasons. *Proceedings of the National Academy of Sciences*, 118(7):e2013284118.
181. **Abatzoglou J.T.**, C.S. Juang, A.P. Williams, C.A. Kolden, A.L. Westerling, 2021, Increasing synchronous fire danger in forests of the western United States. *Geophysical Research Letters*, e2020GL091377
180. Hanan EJ, J. Ren, C.L. Tague, C.A. Kolden, **J.T. Abatzoglou**, R.R. Bart, M.C. Kennedy, M. Liu, J. Adam, 2021, How climate change and fire exclusion drive wildfire regimes at actionable scales. *Environmental Research Letters*, 16 (2), 024051
179. Higuera, P.E. and **J.T. Abatzoglou**, 2021. Record-setting climate enabled the extraordinary 2020 fire season in the western United States. *Global change biology*. 27(1), 1-2

178. **Abatzoglou, J.T.**, B.J. Hatchett, P. Fox-Hughes, A. Gershunov, N.J. Nauslar, 2021, Global climatology of synoptically-forced downslope winds, *International Journal of Climatology*, 41 (1), 31-50
177. Lute*, A.C., **J.T. Abatzoglou**, 2021, Best practices for estimating near-surface air temperature lapse rates, *International Journal of Climatology*, 41, E110-E125
176. McEvoy, D.J., Pierce, D.W., Kalansky, J.F., Cayan, D.R. and **J.T. Abatzoglou**, 2020. Projected Changes in Reference Evapotranspiration in California and Nevada: Implications for Drought and Wildland Fire Danger. *Earth's Future*, p.e2020EF001736.
175. **Abatzoglou, J.T.**, G. Lasslop, D. Bachelet, 2020, Editorial: Climate, Land Use, and Fire: Can Models Inform Management? *Frontiers in Earth Science*, 8:624171
174. Parks, S.A. and **J.T. Abatzoglou**, 2020. Warmer and drier fire seasons contribute to increases in area burned at high severity in western US forests from 1985-2017. *Geophysical Research Letters*, p.e2020GL089858.
173. Lynn, E., Cuthbertson, A., He, M., Vasquez, J.P., Anderson, M.L., Coombe, P., **J.T. Abatzoglou**. and Hatchett, B.J., 2020. Precipitation-phase partitioning at landscape scales to regional scales. *Hydrology and Earth System Sciences*, 24(11), pp.5317-5328.
172. Littlefield, C.E., Dobrowski, S.Z., **J.T. Abatzoglou**, Parks, S.A. and Davis, K.T., 2020. A climatic dipole drives short-and long-term patterns of postfire forest recovery in the western United States. *Proceedings of the National Academy of Sciences*. in press
171. Clark*, J., **J.T. Abatzoglou**, Nauslar, N.J. and Smith, A., 2020. Verification of Red Flag Warnings across the Northwestern US as Forecasts of Large Fire Occurrence. *Fire*, 3(4), 60.
170. Davis, K.T., Higuera, P.E., Dobrowski, S.Z., Parks, S.A., **J.T. Abatzoglou**., Rother, M.T. and Veblen, T.T., 2020. Fire-catalyzed vegetation shifts in ponderosa pine and Douglas-fir forests of the western United States. *Environmental Research Letters*, 15(10), p.1040b8.
169. Goss, M., Swain, D.L., **J.T. Abatzoglou**, Sarhadi, A., Kolden, C.A., Williams, A.P. and Duffenbaugh, N.S., 2020. Climate change is increasing the likelihood of extreme autumn wildfire conditions across California. *Environmental Research Letters*, 15(9), p.094016.
168. Bowman, D.M.J.S., C.A. Kolden, **J.T. Abatzoglou**, F.H. Johnston, G.R. van der Werf, M. Flannigan, 2020, Vegetation Fires in the Anthropocene, *Nature Reviews Earth and Environment*, 1-16
167. Wang, G., C. Kirchoff, A. Seth, **J.T. Abatzoglou**, B. Livneh, D.W. Pierce, L. Fomenko, T. Ding, 2020, Projected Changes of Precipitation Characteristics Depend on Downscaling Method and Training Data: MACA vs. LOCA using the US Northeast as an Example, *J. Hydrometeorology*, 21,2739-2758
166. **Abatzoglou, J.T.**, C.M. Smith, D.L. Swain, T. Ptak, C.A. Kolden, 2020, Population exposure to pre-emptive de-energization aimed at averting wildfires in Northern California, *Environmental Research Letters*, 15 (9), 094046
165. Williams A P, E.R. Cook, J.E. Smerdon, B.I. Cook, **J.T. Abatzoglou**, K. Bolles, S.H. Baek, A.M. Badger, B. Livneh, 2020, Large contribution from anthropogenic warming to an emerging North American megadrought *Science* 368 (6488), 314-318
164. Maas A, C. Wardropper, G. Roesch-McNally, **J. Abatzoglou**, 2020, A (mis)alignment of farmer experience and perceptions of climate change in the U.S. inland Pacific Northwest *Clim. https://doi.org/10.1007/s10584-020-02713-6*
163. Qin Y, **J.T. Abatzoglou**, S. Siebert, L.S. Huning, A. AghaKouchak, J.S. Mankin, C. Hong, D. Tong, S.J. Davis, N.D. Mueller, 2020, Agricultural risks from changing snowmelt *Nat. Clim. Chang.* 10 (5), 459-465
162. Kalashnikov, D.A., P.C. Loikith, A.J. Catalano, D.E. Waliser, H. Lee, **J.T. Abatzoglou**, 2020, A 30-year climatology of meteorological conditions associated with lightning days in the interior western United States, *J. Climate*, 33 (9) 3771-3785

161. Pi, H., Huggins, D. R., **J.T. Abatzoglou** and Sharratt, B. 2020, Modeling soil wind erosion from agro-ecological classes of the Pacific Northwest in response to current climate. *J. Geophys. Res. Atmos.* (in press)
160. Barbero, R., **J.T. Abatzoglou**, F. Pimont, J. Ruffault, T. Curt, 2020. Attributing increases in fire weather to anthropogenic climate change over France. *Frontiers in Earth Science*, 8, p.104.
159. **Abatzoglou, J.T.**, S.Z. Dobrowski, S.A. Parks, 2020, Multivariate climate departures have outpaced univariate changes across global lands, *Scientific Reports*, 10, 1, 1-9
158. Morgan, P., E.K. Heyerdahl, E.K. Strand, S.C. Bunting, J.P. Riser II, **J.T. Abatzoglou**, M. Nielsen-Pincus, M. Johnson, 2020, Fire and land cover change in the Palouse Prairie–forest ecotone, Washington and Idaho, USA. *Fire Ecology*, 16 (1), 2
157. Marshall, A.M., T.E. Link, A.P. Robinson, **J.T. Abatzoglou**, 2020, Higher snowfall intensity is associated with reduced impacts of warming upon winter snow ablation, *Geophysical Research Letters*, 47, e2019GL086409
156. Fowler, M., A.M., Rad, S. Utych, A. Adams, S. Alamian, J., Pierce, P. Dennison, **J.T. Abatzoglou**, A. AghaKouchak, L. Montrose, and M.A. Sadegh, 2019, A dataset on human perception of and response to wildfire smoke, *Scientific Data*, 6,1-10
155. Parker, L.E., **J.T. Abatzoglou**, 2019, Warming Winters Reduce Chill Accumulation for Peach Production in the Southeastern United States, *Climate*, 7 (8), 94
154. Dahl, K., R. Licker, **J.T. Abatzoglou**, J. Delet-Barreto, 2019, Increased frequency of and population exposure to extreme heat index days in the United States during the 21st century, *Environmental Research Communications* 1 (7), 075002
153. Williams, A.P., **J.T. Abatzoglou**, A. Gershunov, J. Guzman-Morales, D.A. Bishop, J.K. Balch, D.P. Lettenmaier, 2019, Observed impacts of anthropogenic climate change on wildfire in California, *Earth's Future*
152. Marshall, A.M., **J.T. Abatzoglou**, T.E. Link, C.J. Tennant, 2019, Projected changes in interannual variability of peak snowpack amount and timing in the Western United States, *Geophysical Research Letters*, 46.
151. Ficklin, D.L., **J.T. Abatzoglou**, K.A. Novick, 2019, A new perspective on terrestrial hydrologic intensity that incorporates atmospheric water demand, *Geophysical Research Letters*, 46.
150. Zubkova, M., L. Boschetti, **J.T. Abatzoglou**, L. Giglio, 2019, Changes in fire activity in Africa from 2002 to 2016 and their potential drivers. *Geophysical Research Letters*, 46.
149. Xu, B., J.A. Hicke, **J.T. Abatzoglou**, 2019, Drought and Moisture Availability and Recent Western Spruce Budworm Outbreaks in the Western United States, *Forests* 10 (4), 354
148. Svancara, L.K., **J.T. Abatzoglou**, B. Waterbury, 2019, Modeling Current and Future Potential Distributions of Milkweeds and the Monarch Butterfly in Idaho, *Frontiers in Ecology and Evolution* 7, 168
147. Joseph, M.B., M.W. Rossi, N.P. Mietkiewicz, A.L. Mahood, M.E. Cattau, L.A. St. Denis, R.C. Nagy, V. Iglesias, **J.T. Abatzoglou**, J.K. Balch, 2019, Spatiotemporal prediction of wildfire size extremes with Bayesian finite sample maxima, *Ecological Applications*, e01898
146. Young, A.M., P.E. Higuera, **J.T. Abatzoglou**, P.A. Duffy, F.S. Hu, 2019, Consequences of climatic thresholds for projecting fire activity and ecological change, *Global Ecology and Biogeography* 28 (4), 521-532
145. Gelda, R.K., R. Mukundan, E.M. Owens, **J. T. Abatzoglou**, 2019, A Practical Approach to Developing Climate Change Scenarios for Water Quality Models, *J. Hydrometeorology*, 72 (2), 225-229
144. Marshall, A.M., T.E. Link, **J.T. Abatzoglou**, G.N. Flerchinger, D.G. Marks, L. Tedrow, 2019, Warming alters hydrologic heterogeneity: simulated climate sensitivity of hydrology-based microrefugia in the snow-to-rain transition zone, *Water Resources Research*, 55 (3), 2122-2141

143. Davis, K.T., S.Z. Dobrowski, Z.A. Holden, P.E. Higuera, **J.T. Abatzoglou**, 2019, Microclimatic buffering in forests of the future: the role of local water balance, *Ecography* 42 (1), 1-11
142. **Abatzoglou, J.T.**, A.P. Williams, R. Barbero, 2019, Global emergence of anthropogenic climate change in fire weather indices, *Geophysical Research Letters*, 46, 326–336.
141. Kemp, K.B., P.E. Higuera, P. Morgan, **J.T. Abatzoglou**, 2019, Climate will increasingly determine post-fire tree regeneration success in low-elevation forests, Northern Rockies, USA, *Ecosphere* 10 (1), e02568
140. Moffet, C.A., S.P. Hardegree, **J.T. Abatzoglou**, *K.C. Hegewisch, R.R. Reuter, R.L. Sheley, M.W. Brunson, G.N. Flerchinger, A.R. Boehm, 2019, Weather Tools for Retrospective Assessment of Restoration Outcomes, *Rangeland Ecology and Management*, 72, 225-229
139. Mu, J.E., J.M. Antle, **J.T. Abatzoglou**, 2019, Representative agricultural pathways, climate change, and agricultural land uses: an application to the Pacific Northwest of the USA, *Mitigation and Adaptation Strategies for Global Change*, 1-19
138. Kliskey, A., **J. Abatzoglou**, L. Alessa, C. Kolden, D. Hoekema, *B. Moore, S. Gilmore, G. Austin, 2019, Planning for Idaho's waterscapes: A review of historical drivers and outlook for the next 50 years, *Environmental Science and Policy*, 94, 191-201
137. Fusco, E. J., J.T. Finn, **J.T. Abatzoglou**, J.K. Balch, S. Dadashi, B.A. Bradley, 2019. Detection rates and biases of fire observations from MODIS and agency reports in the conterminous United States. *Remote Sensing of Environment*, 220, 30–40
136. Lareau, N.P., N.J. Nauslar, **J.T. Abatzoglou**, 2018, The Carr Fire vortex: a case of pyrotornadogenesis? *Geophysical Research Letters*, 45, 13,107–13,115
135. Williams, P., L. Alessa, A. Kliskey, D. Rinella, J. Trammell, J. Powell, **J.T. Abatzoglou**, 2018. The role of perceptions versus instrumented data of environmental change: Responding to changing environments in Alaska. *Environmental Science and Policy*, 90, 110–121.
134. Meddens, A.J.H., C.A. Kolden, J.A. Lutz, A.M.S. Smith, C.A. Cansler, **J.T. Abatzoglou**, G.W. Meigs, W.M. Downing, M.A. Krawchuk, 2018, Fire Refugia: What Are They, and Why Do They Matter for Global Change?, *Bioscience*, 68, 944-954
133. **Abatzoglou, J.T.**, A.P. Williams, L. Boschetti, M. Zubkova, C.A. Kolden, 2018, Global patterns of interannual climate-fire relationships. *Global Change Biology*, 24, 5164-5175
132. Ficklin, D. L., **J.T. Abatzoglou**, S.M. Robeson, S. E. Null, J.H. Knouft, 2018, Natural and managed watersheds show similar responses to recent climate change. *Proceedings of the National Academy of Sciences*, 201801026.
131. Bowman, D. M. J. S., A. Moreira-Muñoz, C.A. Kolden, R.O. Chávez, A.A. Muñoz, F. Salinas, A. González-Reyes, R. Rocco, F. de la Barrera, G.J. Williamson, N. Borchers, L.A. Cifuentes, **J.T. Abatzoglou**, F.H. Johnston, 2018, Human–environmental drivers and impacts of the globally extreme 2017 Chilean fires. *Ambio*. <https://doi.org/10.1007/s13280-018-1084-1>
130. Williams, A. P., P. Gentine, M.A. Moritz, D.A. Roberts, **J.T. Abatzoglou**, 2018, Effect of reduced summer cloud shading on evaporative demand and wildfire in coastal southern California. *Geophysical Research Letters*, 45, 5653–5662.
129. Elias, E., T.S. Schrader, **J.T. Abatzoglou**, D. James, M. Crimmins, J. Weiss, A. Rango, 2018, County-level climate change information to support decision-making on working lands. *Climatic Change*, 148(3), 355–369.
128. Elias, E., A. Marklein, **J.T. Abatzoglou**, J. Dialesandro, J. Brown, C. Steele, 2018, Vulnerability of field crops to midcentury temperature changes and yield effects in the Southwestern USA. *Climatic Change*, 148(3), 403–417.
127. Kolden, C.A., J.T. Abatzoglou, 2018, Spatial distribution of wildfires ignited under katabatic versus non-katabatic winds in mediterranean Southern California USA, *Fire*, 1 (2) 19
126. Bradley, B. A., C.A. Curtis, E.J. Fusco, **J.T. Abatzoglou**, J.K. Balch, S. Dadashi, M.-N. Tuanmu, 2018, Cheatgrass (*Bromus tectorum*) distribution in the intermountain Western United States and its relationship to fire frequency, seasonality, and ignitions. *Biological Invasions*, 20(6), 1493–1506.

125. **Abatzoglou, J. T.**, L.E. Parker, 2018, Climate Change and the American West. *Idaho L. Rev.*, 54, 265.
124. Nauslar, N., **J.T. Abatzoglou**, P. Marsh, 2018. The 2017 North Bay and Southern California Fires: A Case Study. *Fire* . <https://doi.org/10.3390/fire1010018>
123. Mu, J. E., B.A. McCarl, B. Sleeter, **J.T. Abatzoglou**, H. Zhang, 2018. Adaptation with climate uncertainty: An examination of agricultural land use in the United States. *Land Use Policy*, 77, 392–401.
122. Hausner, M. B., J.L. Huntington, C. Nash, C. Morton, D.J. McEvoy, D.S. Pilliod, K.C. Hegewisch*, B. Daudert, **J.T. Abatzoglou**, G. Grant, 2018, Assessing the effectiveness of riparian restoration projects using Landsat and precipitation data from the cloud-computing application ClimateEngine. *org. Ecological Engineering*, 120, 432–440.
121. Barbero, R., **J.T. Abatzoglou**, H.J. Fowler, 2018, Contribution of large-scale midlatitude disturbances to hourly precipitation extremes in the United States. *Climate Dynamics*. <https://doi.org/10.1007/s00382-018-4123-5>
120. Nagy, R. C., E. Fusco, B. Bradley, **J.T. Abatzoglou**, J. Balch, 2018, Human-Related Ignitions Increase the Number of Large Wildfires across U.S. Ecoregions. *Fire* . <https://doi.org/10.3390/fire1010018>
119. Balch, J., Schoennagel, T., Williams, A., **J.T. Abatzoglou**, M. Cattau, N. Mietkiewicz, L. St. Denis, 2018, Switching on the Big Burn of 2017. *Fire*. <https://doi.org/10.3390/fire1010017>
118. **Abatzoglou, J. T.**, Balch, J. K., Bradley, B. A., Kolden, C. A., 2018, Human-related ignitions concurrent with high winds promote large wildfires across the USA. *International Journal of Wildland Fire*, 27, 377–386.
117. **Abatzoglou, J.T.**, S.Z. Dobrowski, S.A. Parks, K.C. Hegewisch*, 2018, Terraclimate, a high-resolution global dataset of monthly climate and climatic water balance from 1958-2015, *Scientific Data*, 5, 170191
116. Parker, L.E.*, and **J.T. Abatzoglou**, 2018, Shifts in the thermal niche of almond under climate change, *Climatic Change*, 147(1–2), 211–2246
115. Williams, P., L. Alessa, **J.T. Abatzoglou**, A. Kliskey, F. Witmer, O. Lee, J. Trammell, G. Beaujean, R. Venema, 2017, Community-based observing networks and systems in the Arctic: Human perceptions of environmental change and instrument-derived data, *Regional Environmental Change*, <https://doi.org/10.1007/s10113-017-1220-7>
114. Meddens, A.J.H., C.A. Kolden, J.A. Lutz, **J.T. Abatzoglou**, and A.T. Hudak, 2017, Spatial and temporal patterns of unburned areas within fire perimeters in the northwestern United States from 1984 to 2014, *Ecosphere*
113. Marlier M.E., M. Xiao, R. Engel, B. Livneh, **J.T. Abatzoglou**, and D.P. Lettenmaier, 2017, The 2015 drought in Washington State: a harbinger of things to come? *Environmental Research Letters* 12, 114008.
112. Yorgey, G.G., S.A. Hall, E.R. Allen, E.M. Whitefield, N.M. Embertson, V.P. Jones, B.R. Saari, K. Rajagopalan, G.E. Roesch-McNally, B. Van Horne, **J.T. Abatzoglou**, H.P. Collins, L.L. Houston, T.W. Ewing, C.E. Kruger, 2017, Northwest U.S. Agriculture in a Changing Climate: Collaboratively Defined Research and Extension Priorities . *Front. Environ. Sci.* 5, 52.
111. Antle, J.M., J.E. Mu, H. Zhang, S.M. Capalbo, P.L. Diebel, S.D. Eigenbrode, C.E. Kruger, C.O. Stöckle, J.D. Wulforst, **J.T. Abatzoglou**, 2017, Design and Use of Representative Agricultural Pathways for Integrated Assessment of Climate Change in U.S. Pacific Northwest Cereal-Based Systems . *Front. Ecol. Evol.* 5, 99.
110. Kaur, H., D.R. Huggins, R.A. Rupp, **J.T. Abatzoglou**, C.O. Stöckle, J.P. Reganold, 2017, Agro-Ecological Class Stability Decreases in Response to Climate Change Projections for the Pacific Northwest, USA . *Front. Ecol. Evol.* 5, 74.
109. **Abatzoglou, J. T.** and D.L. Ficklin, 2017, Climatic and physiographic controls of spatial variability in surface water balance over the contiguous United States using the Budyko relationship. *Water Resources Research*, 53, 7630-7643

108. Hardegree, S.P., **J.T. Abatzoglou**, M.W. Brunson, M.J. Germino, K.C. Hegewisch*, C.A. Moffet, D.S. Pillod, B.A. Roundy, A.R. Boehm, and G.R. Meredith, 2017, Weather-Centric Rangeland Revegetation Planning. *Rangeland Ecology and Management*, doi:<http://dx.doi.org/10.1016/>
107. Feng, W.*, **J.T. Abatzoglou**, J.A. Hicke, and H.F. Liao, 2017, Interannual county-level climate-yield relationships for winter wheat on the Columbia Plateau, USA, *Climate Research*, 74, 71-79
106. Mu, J.E., B.M. Sleeter, **J.T. Abatzoglou**, and J.M. Antle, 2017, Climate Impacts on Agricultural Land Use in the United States: The Role of Socio-economic Scenarios, *Climatic Change*, 144m 329-345
105. **Abatzoglou, J.T.**, D.J. McEvoy, and K.T. Redmond, 2017, The West Wide Drought Tracker: Drought Monitoring at Fine Spatial Scales, *Bulletin of the American Meteorological Society*, 98, 1815-1820
104. Huntington, J.L., K.C. Hegewisch*, B. Daudert, C. Morton, **J.T. Abatzoglou**, D.J. McEvoy, and T. Erickson, 2017, Climate Engine: Cloud Computing and Visualization of Climate and Remote Sensing Data for Advanced Natural Resource Monitoring and Process Understanding, *Bulletin of the American Meteorological Society*, 98, 2397-2410
103. Buotte, P. C., J.A. Hicke, H.K. Preisler, **J.T. Abatzoglou**, K.F. Raffa, and J.A. Logan, 2017, Recent and future climate suitability for whitebark pine mortality from mountain pine beetles varies across the western US, *Forest Ecology and Management*, 399, 132-142
102. **Abatzoglou, J.T.**, C.A. Kolden, A.P. Williams, J.A. Lutz, and A.M.S. Smith, 2017, Climatic influences on interannual variability in regional burn severity across western US forests, *International Journal of Wildland Fire*, 26, 269-275
101. **Abatzoglou, J.T.**, and D.E. Rupp, 2017, Evaluating climate model simulations of drought for the northwestern United States, *International Journal of Climatology*, doi:10.1002/joc.5046
100. Parker, L.E.*, and **J.T. Abatzoglou**, 2017, Comparing mechanistic and empirical approaches to modeling the thermal niche of almond, *International Journal of Biometeorology*, 61, 1593-1606
99. Stockle, C., S. Higgins, R. Nelson, **J.T. Abatzoglou**, D. Huggins, W. Pan, T. Karimi, J.M. Antle, S. Eigenbrode, and E. Brooks, 2017, Evaluating opportunities for an increased role of winter crops as adaptation to climate change in dryland cropping systems of the U.S. Inland Pacific Northwest, *Climatic Change*
98. Syphard, A.D., J.E. Keeley, **J.T. Abatzoglou**, 2017, Trends and drivers of fire activity vary across California aridland ecosystems, *Journal of Arid Environments*, 144, 110-122
97. Antle, J.M., 2017, Methods to Assess Between-System Adaptation to Climate Change: Dryland Wheat Systems in the Pacific Northwest United States, *Agriculture, Ecosystems and Environment*, 253, 195-207
96. Balch, J.K., B.A. Bradley, **J.T. Abatzoglou**, R.C. Nagy, E.J. Fusco, and A.L. Manhood, 2017, Human-started wildfires expand the fire niche across the United States, *Proceedings of the National Academy of Sciences*, 114, 2946-2951
95. Sofaer, H.R., J.J. Barsugli, C.S. Jarnevich, **J.T. Abatzoglou**, M.K. Talbert, B.W. Miller and J.T. Morisette, 2017, Designing ecological climate change impact assessments to reflect key climatic drivers, *Global Change Biology*, 23, 2537-2553
94. Bowman, D.M.J.S., G.J. Williamson, **J.T. Abatzoglou**, C.A. Kolden, M.A. Cochrane, and A.M.S. Smith, 2017, Human exposure and sensitivity to globally extreme wildfire events, *Nature Ecology and Evolution*, 1, 58
93. Gergel D.E., B. Nijssen, **J.T. Abatzoglou**, D.P. Lettenmaier, and M.R. Stumbaugh, 2017, Effects of climate change on snowpack and fire potential in the western USA, doi:10.1007/s10584-017-1899-y
92. Bachelet, D., Sheehan, T., Ferschweiler, K. and **J.T. Abatzoglou**, 2017, Simulating Vegetation Change, Carbon Cycling, and Fire Over the Western United States Using CMIP5 Climate Projections, in *Natural Hazard Uncertainty Assessment: Modeling and Decision Support*, John Wiley and Sons, Inc., Hoboken, NJ, USA. doi:10.1002/9781119028116.ch17

91. Barbero, R.*, **J.T. Abatzoglou**, and K.C. Hegewisch*, 2017. Evaluation of statistical downscaling of North American Multi-Model Ensemble forecasts over western USA. *Wea. Forecasting*, doi: 10.1175/WAF-D-16-0117.1.
90. Rupp, D.E., **J.T. Abatzoglou**, and P.W. Mote, 2016. Projections of 21st century climate of the Columbia River Basin. *Climate Dynamics*, 1-17.
89. **Abatzoglou, J.T.**, and A.P. Williams, 2016, The impact of anthropogenic climate change on wildfire across western US forests. *Proceedings of the National Academy of Sciences USA* 113:11770-11775
88. Fusco, E. J., **J.T. Abatzoglou**, J.K. Balch, J.T. Finn, and B.A. Bradley, 2016, Quantifying the human influence on fire ignition across the western US. *Ecol Appl.* doi:10.1002/eap.1395
87. Buotte, P. C., J.A. Hicke, H.K. Preisler, **J.T. Abatzoglou**, K.F. Raffa, and J.A. Logan, 2016, Climate influences on whitebark pine mortality from mountain pine beetle in the Greater Yellowstone Ecosystem. *Ecol Appl.* doi:10.1002/eap.1396
86. Hicke, J.A., **J.T. Abatzoglou**, S. Daley-Laursen, J. Esler, L.E. Parker. 2016. Using scientific conferences to engage the public on climate change. *The Bulletin of the American Meteorological Society.* <http://dx.doi.org/10.1175/BAMS-D-15-00304.1>
85. **Abatzoglou, J.T.**, C.A. Kolden, J.K. Balch and B.A. Bradley, 2016: Controls on interannual variability in lightning-caused fire activity in the western US, *Environmental Research Letters*, 11 (4), 045005
84. **Abatzoglou, J.T.**, 2016: Contribution of cut-off lows to precipitation across the United States, *Journal of Applied Meteorology and Climatology*, 55, 893-899
83. Parks, S.A., C. Miller, **J.T. Abatzoglou**, L.M. Holsinger, M.A. Parisien, and S.Z. Dobrowski, 2016: How will climate change affect wildland fire severity in the western US? *Environmental Research Letters*, 11 (3), 035002
82. Smith, A.M.S, C.A. Kolden, T.B. Paveglio, M.A. Cochrane, D.M. Bowman, M.A. Moritz, A.D. Klisley, L. Alessa, A.T. Hudak, C.M. Hoffman, J.A. Lutz, L.P. Queen, S.J. Goetz, P.E. Higuera, L. Boschetti, M.D. Flannigan, K.M. Yedinak, A.C. Watts, E.K. Strand, J.W. van Wagtenonk, J.W. Anderson, B.J. Stocks, and **J.T. Abatzoglou**, 2016: The Science of firescapes: Achieving Fire Resilient Communities. *Bioscience*, 66 (2): 130-146
81. Smith A.M.S., A.M. Sparks , C.A. Kolden, **J.T. Abatzoglou**, A.F. Talhelm, D.M. Johnson, L. Boschetti, J.A. Lutz, K.G. Apostol, K.M. Yedinak, W.T. Tinkham, and R.J. Kremens, 2016: Towards a new paradigm in fire severity research using dose–response experiments. *International Journal of Wildland Fire* 25, 158-166.
80. Williams, A.P., and **J.T. Abatzoglou**, 2016: Recent Advances and Remaining Uncertainties in Resolving Past and Future Climate Effects on Global Fire Activity, *Current Climate Change Reports*, 2 (1), 1-14
79. Iocabellis, S.F., **J.T. Abatzoglou**, D.R. Cayan, H. Mooney, 2016, *Climate* (chapter 2), in *Ecosystems of California*, H. Mooney and E. Zavaleta [eds], University of California Press
78. Parker, L.E.*, and **J.T. Abatzoglou**, 2016: Projected changes in cold hardiness zones and suitable overwinter ranges of perennial crops over the United States, *Environmental Research Letters*, 11 (3), 034001
77. Sohrabi, M., J. Ryu, **J., Abatzoglou**, and J. Tracy, 2016: Closure to “Development of Soil Moisture Drought Index to Characterize Droughts”, *J. Hydrol. Eng.*, 10.1061/(ASCE)HE.1943-5584.0001358, 07016002
76. Parker, L.E.*, and **J.T. Abatzoglou**, 2016: Spatial coherence of extreme precipitation events in the Northwestern United States, *Int. J. of Climatology*, 36: 2451-2460
75. Wei, L., T.E. Link, A.T. Hudak, J.D. Marshall, K.L. Kavanagh, **J.T. Abatzoglou**, H. Zhou, R.E. Pangle, and G.N. Flerchinger, 2016. Simulated water budget of a small forested watershed in the continental/maritime hydroclimatic region of the United States. *Hydrological Processes*. 30: 2000–2013

74. Holden, Z. A., A. Swanson, A. Klene, **J.T. Abatzoglou**, S.Z., Dobrowski, S. A. Cushman, J. Squires, G.G. Moisen and J.W. Oyler, 2016, Development of high-resolution historical daily gridded air temperature data using reanalysis and distributed sensor networks for the US Northern Rocky Mountains. *Int. J. Climatol.* 36: 3620-3632
73. Ficklin, D.L., **J.T. Abatzoglou**, S.M. Robeson and A. Dufficy, 2016: The influence of climate model biases on projections of aridity and drought, *J Climate*, 29, 1269-1285
72. Sharratt, B.S., J. Tatarko, **J.T. Abatzoglou**, F.A. Fox, and D. Huggins, 2015, Implications of climate change on wind erosion of agricultural lands in the Columbia plateau, *Weather and Climate Extremes*, 10, 20-31
71. Kolden, C.A., **J.T. Abatzoglou**, J.A. Lutz, C.A. Cansler, J. Kane, J.W. van Wagtenonk and C.H. Key, 2015: Climatological contributors to forest mosaics: ecological persistence following fire, *Northwest Science*, 89(3):219-238
70. Parks, S.A., C. Miller, M.A. Parisien, L.M. Holsinger, S.Z. Dobrowski and **J. Abatzoglou**, 2015: Wildland fire deficit and surplus in the western United States, 1984-2012, *Ecosphere*, 6(12), 275
69. Pierce, D.W., D.R. Cayan, E.P. Maurer, **J.T. Abatzoglou** and K.C. Hegewisch, 2015: Improved bias correction techniques for simulations of climate change, *Journal of Hydrometeorology*, 16 (6), 2421-2442
68. Kolden, C.A., A.M.S. Smith, and **J.T. Abatzoglou**, 2015: Limitations and utilization of Monitoring Trends in Burn Severity products for assessing wildfire severity in the USA, *International Journal of Wildland Fire*, 24, 1023-1028
67. Williams, A.P., R. Seager, **J.T. Abatzoglou**, B.I. Cook, J.E. Smerdon and E.R. Cook, 2015: Contribution of anthropogenic warming to California drought during 2012-2014, *Geophysical Research Letters*, 42, 6819-6828
66. Barbero R.*, **J.T. Abatzoglou**, N.K. Larkin, C. Kolden and B. Stocks, 2015, Climate change presents increased potential for very large fires in the contiguous United States, *International Journal of Wildland Fire*, 24, 892-899
65. Higuera, P.E., **J.T. Abatzoglou**, J.S. Littell and P. Morgan, 2015, The changing strength and nature of fire-climate relationships in the northern Rocky Mountains, U.S.A., 1902-2008. *PLoS ONE* 10(6): e0127563
64. Klos, P.Z., **J.T. Abatzoglou** and co-authors, 2015, Indicators of climate change in Idaho: An assessment framework for coupling biophysical change and social perception, *Weather, Climate, and Society*, 7(3), 238-254
63. Barbero R.*, **J.T. Abatzoglou**, T.J. Brown, 2015, Seasonal reversal of the influence of El Niño-Southern Oscillation on very large wildfire occurrence in the interior western United States, *Geophysical Research Letters*, 42, 3538-3545
62. Dobrowski, S.Z., A.K. Swanson, **J.T. Abatzoglou**, Z.A. Holden, H. Safford, M.K. Schwartz, and D. Gavin, 2015, Forest structure and species traits mediate projected recruitment declines in western US tree species, *Global Ecology and Biogeography*, 24(8), 917-927
61. Sohrabi, M., J. Ryu, **J.T. Abatzoglou**, and J. Tracy, 2015, Development of Soil Moisture Drought Index (SODI) to Characterize Droughts, *J. Hydrologic Engineering*, doi:10.1061/(ASCE)HE.1944.5584.0001213.
60. Lute, A.C.*, **J.T. Abatzoglou**, and K.C. Hegewisch*, 2015, Projected changes in snowfall extremes and interannual variability of snowfall in the western U.S, *Water Resources Research*, 51(2), 960-972
59. Birch, D., S.P. Morgan, C.A. Kolden, **J.T. Abatzoglou**, G.K. Dillon, A.T. Hudak and A.M. Smith, 2015, Vegetation, topography and daily weather influenced burn severity in central Idaho and western Montana forests. *Ecosphere*. 6(1), 1-23
58. Barbero R.*, **J.T. Abatzoglou**, C. Kolden, K. Hegewisch*, N.K. Larkin, H. Podschwit, 2015, Multi-scalar influence of weather and climate on very large-fires in the Eastern United States, *International Journal of Climatology*, 35: 2180-2186

57. Cosens, B. A., A.K. Fremier, N. Bankes, Nigel, **J. Abatzoglou**, 2015, The Columbia River Treaty and the Dynamics of Transboundary Water Negotiations in a Changing Environment: How Might Climate Change Alter the Game? Chapter in *Western Water Policy and Planning in a Variable and Changing Climate*, Kathleen Miller, Alan Hamlet, Douglas Kenney and Kelly Redmond [eds], CRC Press - Taylor and Francis
56. **Abatzoglou, J.T.**, D.E. Rupp and P.W. Mote, 2014, Questionable evidence of natural warming of the northwestern United States, *Proceedings of the National Academy of Sciences*, 111(52), E5605-E5606
55. Barbero R.*, **J.T. Abatzoglou**, E. A. Steel, N.K. Larkin, 2014, Modeling very large-fire occurrences over the continental United-States from weather and climate forcing, *Environmental Research Letters*, 9(12), p.124009
54. Edwards, L.M., M.J. Bunkers, **J.T. Abatzoglou**, D.P. Todey, L. Parker*, 2014, October 2013 Blizzard in western South Dakota [in "Explaining Extremes of 2013 from a Climate Perspective"]. *Bull. Amer. Meteor. Soc.*, 95 (9), S23-S26.
53. Stavros, E.N, **J.T. Abatzoglou**, N.K. Larkin, and D. McKenzie, 2014, Regional projections of the likelihood of very large wildland fires under a changing climate in the contiguous Western United States, *Climatic Change*, 126(3-4), 455-468
52. **Abatzoglou J.T.**, R. Barbero*, J.W. Wolf*, Z. Holden, 2014, Tracking interannual streamflow variability with drought indices in the Pacific Northwest, US, *Journal of Hydrometeorology*, 15, 1900-1912
51. Davis, T.S., **J.T. Abatzoglou**, N.A. Bosque-Perez, S.E. Halbert, K. Pike and S.D. Eigenbrode, 2014, Differing contributions of density dependence and climate to the population dynamics of three eruptive herbivores, US, *Ecological Entomology*, 39: 566-577
50. Stavros, E.N, **J.T. Abatzoglou**, N.K. Larkin, D. McKenzie and E.A. Steel, 2014, Climate and very large wildland fires in the contiguous Western USA, *International Journal of Wildland Fire*, 23, 899-914,
49. Klos, P.Z., T.E. Link and **J.T. Abatzoglou**, 2014, Extent of the rain-snow transition zone in the western U.S. under historic and projected climate, *Geophysical Research Letters*, 41, 4560-4568.
48. Lute, A.C.* and **J.T. Abatzoglou**, 2014, Role of extreme snowfall events in interannual variability of snowfall accumulation in the western United States, *Water Resources Research*, 50, 2874-2888
47. **Abatzoglou, J.T.** and R. Barbero*, 2014. Observed and projected changes in absolute temperature records across the contiguous United States. *Geophysical Research Letters*, 41, 6501-6508.
46. **Abatzoglou, J.T.**, J.F.C. DiMento, P. Doughman and S. Nespor, 2014, A Primer on Global Climate-Change Science, (Chapter 2, pp. 15-52) In *Climate Change: What It Means for Us, Our Children, and Our Grandchildren* 2nd edition DiMento, J.F.C and P. Doughman [eds.], MIT Press
45. **Abatzoglou, J.T.**, C.A. Kolden, J.F.C. DiMento, P. Doughman and S. Nespor, 2014, Climate-Change Effects, Adaptation, and Mitigation, (Chapter 3, pp. 53-104) In *Climate Change: What It Means for Us, Our Children, and Our Grandchildren* 2nd edition DiMento, J.F.C and P. Doughman [eds.], MIT Press
44. Peterson, A.G.* and **J. T. Abatzoglou**, 2014, Observed Changes in False Springs over the Contiguous United States, *Geophysical Research Letters*, 41, 2156-2162
43. Okubara, P.A., K.L. Schroeder, **J. T. Abatzoglou** and T.C. Paulitz, 2014, Agroecological factors correlated to soil DNA concentrations of Rhizoctonia in dryland wheat production zones of Washington state, USA, *Phytopathology*, 104: 683-691
42. Redmond, K.T., and **J.T. Abatzoglou**, 2014, Current Climate and Recent Trends (chapter 2, pp. 53-94) In: *Climate Change in North America*, Ohring G. [eds.], doi:10.1007/978-3-319-03768-4-2

41. **Abatzoglou, J.T.**, D.E. Rupp and P.W. Mote, 2014, Understanding seasonal climate variability and change in the Pacific Northwest of the United States, *Journal of Climate*, 27, 2125-2142
40. Lannom, K., W.T. Tinkham, B.A. Newingham, T.E. Hall, P. Morgan, **J.T. Abatzoglou**, E.K. Strand, T.B. Paveglio, J.W. Anderson and A.M.S. Smith, 2014, Defining extreme wildland fires using geospatial data, *International Journal of Wildland Fire*, <http://dx.doi.org/10.1071/WF13065>
39. Mote, P., **J. Abatzoglou**, and K. Kunkel, 2013: Climate change in the Northwest. Chapter 2 in Dalton, M., P.W. Mote, and A.K. Snover, eds., 2013: *Climate Change in the Northwest: Implications for Our Landscapes, Waters, and Communities*. 224 pp. Island Press.
38. Luce, C.H., **J.T. Abatzoglou**, Z.A. Holden, 2013. The Missing Mountain Water: Slower Westerlies Decrease Orographic Enhancement in the Pacific Northwest USA. *Science*, 342(6164): 1360-1364
37. Kandel, S.L., R.W Smiley, K. Garland-Campbell, A.A. Elling, **J. Abatzoglou**, D. Huggins, R. Rupp, T.C. Paulitz, 2013: Relationship Between Climatic Factors and Distribution of *Pratylenchus* spp. in the Dryland Wheat-Production Areas of Eastern Washington, *Plant Disease* 11/2013; 97:1448-1456
36. Poole G.J., R.W Smiley, C. Walker, D. Huggins, R. Rupp, **J. Abatzoglou**, K. Garland-Campbell, T.C. Paulitz, 2013: Effect of Climate on the Distribution of *Fusarium* spp. Causing Crown Rot of Wheat in the Pacific Northwest of the United States, *Phytopathology* 11/2013; 103(11):1130-1140
35. Rupp, D.E., **J.T. Abatzoglou**, K.C. Hegewisch and P.W. Mote, 2013, Evaluation of CMIP5 20th century climate simulations for the Pacific Northwest USA, *J. Geophysical Research-Atmospheres*, 118, 10884-10906
34. **Abatzoglou, J.T.**, C.A. Kolden, 2013, Relationships between climate and macroscale area burned in the western United States, *International Journal of Wildland Fire*, 22, 1003-1020
33. Stahle, D.W., R.D. Griffin, D.M. Meko, M.D. Therrell, J.R. Edmondson, M.K. Cleaveland, L.N. Stahle, D.J. Burnette, **J.T. Abatzoglou**, K.T. Redmond, M.D. Dettinger and D.R. Cayan, 2013, The Ancient Blue Oak Woodlands of California: Longevity and Hydroclimatic History. *Earth Interactions*, doi:10.1175/2013EI000518.1
32. Mills, L.S., M. Zimova, J. Oyler, S. Running, **J.T. Abatzoglou**, P. Lukacs, 2013, Camouflage mismatch in seasonal coat color due to decreased snow duration *Proceedings of the National Academy of Sciences*. 110, 7360-7365
31. **Abatzoglou, J.T.**, R. Barbero, and N.J. Nauslar, 2013: Diagnosing Santa Ana winds in Southern California with synoptic-scale analysis. *Wea. Forecasting*. 28, 704-710
30. Riley, K.L., **J.T. Abatzoglou**, I.C. Grenfell, A.E. Klene and F.A. Heinsch, 2013, The relationship of large fire occurrence with drought and fire danger indices in the western USA, 1984-2008: the role of temporal scale. *International Journal of Wildland Fire*, 22, 894-909
29. Anderegg, L.D.L., W.R.L. Anderegg, **J.T. Abatzoglou**, A. Hausladen, and J.A. Berry, 2013, Drought characteristics' role in widespread aspen forest mortality across Colorado, USA. *Global Change Biology*. 19, 1526-1537
28. Dobrowski, S.Z., **J.T. Abatzoglou**, A.K. Swanson, J.A. Greenberg, A.R. Mynsberge, Z.A. Holden, M.K. Schwartz, 2013, The climate velocity of the contiguous United States during the 20th century. *Global Change Biology*. 19, 241-251
27. Favors, J.E.*, and **J.T. Abatzoglou**, 2013, Regional surges of monsoonal moisture into the southwestern United States, *Monthly Weather Review*, 141, 182-191
26. **Abatzoglou, J.T.**, 2013, Development of gridded surface meteorological data for ecological applications and modeling, *International Journal of Climatology*, 33: 121-131
25. Sohrabi, M.M., J.H. Ryu, **J.T. Abatzoglou** and J. Tracy, 2012, Climate extremes and their linkage to regional drought over Idaho, USA, *Natural Hazards*, 65, 653-681
24. McEvoy, D.J, J.L. Huntington, **J.T. Abatzoglou** and L.E. Edwards, 2012, An Evaluation of Multi-scalar Drought Indices in Nevada and Eastern California, *Earth Interactions*, 16, 1-18

23. Kolden, C.A., and **J.T. Abatzoglou**, 2012, Climate and Vegetation Influences on Fire Impacts in Alaskan Boreal Forest: Implications for Carbon and Fire Management, *Fire Ecology*, 8, 98-113
22. **Abatzoglou, J.T.**, and T.J. Brown. 2012, A Comparison of Statistical Downscaling Methods Suited for Wildfire Applications, *International Journal of Climatology*, 32: 772-780
21. Crimmins, S.M, S.Z. Dobrowski, J.A. Greenberg, **J.T. Abatzoglou**, and A.R. Mynsberge, 2011. Response to Comments on Changes in climatic water balance drive downhill shifts in plant species optimum elevations. *Science* 334
20. **Abatzoglou, J.T.** and C.A. Kolden. 2011, Climate change in western US deserts: potential for increased wildfire and invasive annual grasses, *Rangeland Ecology and Management*, 64, 471-478
19. Stahle, D.W., R.D. Griffin, M.K. Cleaveland, J.R. Edmondson, F.K. Fye, D.J. Burnette, **J.T. Abatzoglou**, K.T. Redmond, D.M. Meko, M.D. Dettinger, D.R. Cayan and M.D. Therrell, 2011. [A Tree-Ring Reconstruction of the Salinity Gradient in the Northern Estuary of San Francisco Bay](#). *San Francisco Estuary and Watershed Science*, 9(1).
18. **Abatzoglou, J.T.** and C.A. Kolden. 2011, Relative Importance of Weather and Climate on Wildfire Growth in Interior Alaska, *International Journal of Wildland Fire*, 20, 479-486
17. Cordero, E.C., W. Kessomkiat, **J.T. Abatzoglou** and S.A. Mauget. 2011, Identification of Distinct Patterns in California Temperature Trends, *Climatic Change*, 108, 357-382
16. Holden, Z.A, **J.T. Abatzoglou**, L.S. Baggett and C. Luce. 2011, Empirical downscaling of daily minimum air temperature at very fine resolutions in complex terrain, *Agricultural And Forest Meteorology*, 151, 1066-1073
15. Miller, C., **J.T. Abatzoglou**, T.J. Brown, T., and A. Syphard. 2011, Wilderness Fire Management in a Changing Environment, In: *Landscape Ecology of Fire*, McKenzie, D., C. Miller and D. Falk [eds.], doi:10.1007/978-94-007-0301-8
14. **Abatzoglou, J.T.**, 2011, Influence of the PNA on Declining Mountain Snowpack in the Western United States, *International Journal of Climatology*, 31: 1135-1142
13. Crimmins, S.M, S.Z. Dobrowski, J.A. Greenberg, **J.T. Abatzoglou**, and A.R. Mynsberge, 2011. Changes in climatic water balance drive downhill shifts in plant species optimum elevations. *Science* 331: 324-327
12. **Abatzoglou, J.T.** and T.J. Brown, 2009, Influence of the Madden Julian Oscillation on Summertime Cloud-to-Ground Lightning Activity over the Continental US, *Monthly Weather Review*, 137, 3596-3601
11. **Abatzoglou, J.T.**, K.T. Redmond, L.M. Edwards, 2009, Classification of Regional Climate Variability in the State of California, *Journal of Applied Meteorology and Climatology*, 48(8): 1527-1541
10. Henebry, G.M, A.D. Richardson, D.D. Breshears, **J.T. Abatzoglou**, J.I. Fisher, E.A. Graham, J.M. Hanes, L. Liang, B.E. Wilson, and J.T. Morrisette, 2009, Phenological trend estimation: a reply to Sagarin, *Frontiers in Ecology and the Environment*, 7(6): 296
9. Dobrowski, S.Z., **J.T. Abatzoglou**, J.A. Greenberg, S.G. Schladow, 2009, How much influence does landscape-scale physiography have on air temperature in a mountain environment? *Agricultural and Forest Meteorology*, 149: 1751-1758
8. Jones, B.M., C.A. Kolden, R. Jandt, **J.T. Abatzoglou**, F. Urban and C.D. Arp, 2009, Fire behavior, weather and burn severity of the 2007 Anaktuvuk River tundra fire, North Slope, Alaska, *Arctic, Antarctic, and Alpine Research*, 41(3): 309-316
7. Morrisette, J.T., A.D. Richardson, A.K. Knapp, J.I. Fisher, E.A. Graham, **J. Abatzoglou**, B.E. Wilson, D.D. Breshears, G.M. Henebry, J.M. Hanes and L. Liang, 2009, Learning the Rhythm of the Seasons in the Face of Global Change: Phenological Research in the 21st Century, *Frontiers in Ecology and the Environment*, 7(5): 253-260

6. **Abatzoglou, J.T.**, K.T. Redmond, 2007, The Asymmetry of Trends in Spring and Autumn Temperature and Circulation Regimes over Western North America, *Geophys. Res. Lett.*, 34, L18808
5. **Abatzoglou, J.T.**; Book Chapter 2-3, 2007, *Climate Change: What It Means for Us, Our Children, and Our Grandchildren*, MIT Press
4. **Abatzoglou, J.T.**, G. Magnusdottir, 2007, Wave breaking along the stratospheric polar vortex as seen in ERA-40 data, *Geophysical Research Letters*, 34, L08812
3. **Abatzoglou, J.T.**, G. Magnusdottir, 2006, Opposing Effects of Reflective and Non-reflective Planetary Wave Breaking on the NAO, *Journal of Atmospheric Sciences*, 63, 3448-3457
2. **Abatzoglou, J.T.**, G. Magnusdottir, 2006, Planetary Wave Breaking and Nonlinear Reflection: Seasonal Cycle and Interannual Variability, *Journal of Climate*, 19, 6139-6152
1. **Abatzoglou, J.T.**, G. Magnusdottir, 2004. Nonlinear planetary wave reflection in the troposphere. *Geophysical Research Letters*, 31, L091015

* indicates advisee

- EXTERNAL FUNDING
49. California Fifth Climate Change Assessment San Joaquin Valley Regional Synthesis Report, State of California, PI (2024-, \$330,000)
 48. Unlocking Health Benefits for Californians through Active Land Management Strategies, California Air Resources Board, PI (2024-, \$550,000)
 47. A Multi-Sector Assessment of Climate Change Adaptations in California Agriculture and Communities, State of California, Co-PI (2024-, \$10,000)
 46. Assessment and application of climate model data to inform planning and design of resilient infrastructure systems, UCOP, Co-PI (2024-, \$0)
 45. Research, Development, and Application of Cloud-based Processing and Visualization of Climate and Drought Information, NOAA, Co-PI (2024-, \$30,000)
 44. San Joaquin Valley Climate Resilience Center: Informing Equitable Climate Outcomes through Collaborative and Interdisciplinary Science, DOE, Co-PI (2023-, \$200,000)
 43. Seasonal forecasting for rangeland applications, USDA, PI (2023-, \$50,000)
 42. Continuing to scale and apply hybrid approaches for compound flood risk assessments, NOAA, Co-PI, (2023-, \$25,000)
 41. Adaptation pathways for agricultural land repurposing in the San Joaquin Valley and their impacts on heat and air quality extremes on vulnerable communities, Co-PI (2023-, \$30,000)
 40. Future Fire Weather Scenarios, AON, PI (2022- \$215,000)
 39. Climate Adaptation Pathways-building capacity for near- and long-term resiliency in California and Nevada, NOAA, Co-PI, (2022-, \$215,000)
 38. A Drought Impact Assessment Web-Based Platform for California's Agricultural Systems and Communities, California Department of Food and Agriculture, Co-PI (2021-, \$150,000)
 37. Securing a Climate Resilient Water Future for Agriculture and Ecosystems through Innovations in Measurement, Management and Markets, USDA, Co-PI (2021-, \$230,000)
 36. Institute for Agricultural AI for Transforming Workforce and Decision Support, NSF, Co-PI (2021-, \$230,000)
 35. Machine Learning approach to forecast human-caused wildfires at actionable scales across the western US, JFSP, Co-PI (2021-, \$200,000)
 34. Drivers of density, size, and efficacy of strategies for preventing human-ignited wildfires, JFSP, Co-PI (2021-, \$165,000)
 33. Managing Future Risk of Increasing Simultaneous Megafires, NSF-GCR, Co-PI (2020-, \$300,000)

32. Improving drought indicators to support drought impact mitigation for natural resource management, NOAA, PI, (2020-, \$150,000)
31. Advancing Drought Early Warning Systems, NOAA, Co-PI (2020-, \$350,000)
30. Technology for trade: new tools and new rules for water use efficiency in agriculture and beyond, USDA, Co-PI (2018-, \$140,000)
29. Climate Toolbox Extension, NOAA, PI (2022-2023, \$50,000)
28. Analogs of Environmental Change for National Park Service Units, National Park Service, PI (2018-2023, \$120,000)
27. Climate Impacts Research Consortium 2, NOAA, Co-PI (2015-2020,\$270,000)
26. Advancing Resilience to Compounding Disasters: An Integrated Natural-Human Systems Assessment of Wildfire Vulnerability, NSF Hazard SEES, Co-PI (2015-2020, \$75,000)
25. Social-ecological-technological solutions to waste reuse in food, energy, and water systems (ReFEWS), Co-PI (2016-2020, \$50,000)
24. Mapping the current and future suitability of specialty crop cultivation in the Northwest, USDA NW Climate Hub, PI (2017-2019, \$40,000)
23. Development of a Drought Early Warning System for California-Nevada and the Pacific Northwest, NOAA, Co-PI (2016-2019, \$150,000)
22. Collaborative Visualization of Projected Climatic Conditions and Related Risks for the Northwest US, USDA NW Climate Hub, PI (2015-2018, \$87,000)
21. Cloud Computing Support for Drought Monitoring and Fallow Field Tracking, USGS, Co-PI (2015-2017, \$80,000)
20. Understanding Climate and Land Use Drivers of Invasive-Grass Fueled Fires Across the Western U.S., NASA Terrestrial Ecology, Co-PI (2014-2018, \$50,000)
19. Regional Approaches to Climate Change in Pacific Northwest Agriculture, USDA NIFA, Co-PI (2011- 2017, \$350,000)
18. Disappearing refugia: identifying trends and resilience in unburned islands under climate change, USGS, (2014 - 2017, \$15,000)
17. Evaluation and Downscaling of CMIP5 Climate Simulations for the Southeast U.S., PI (2014-2015 , \$30,000)
16. Google Drought, Google Earth Engine Research Faculty Award, Co-PI (2014, \$70,000)
15. Weather Data and Forecasting Applications for management of Ecological Site Transitions, USDA-NIFA, Co-PI (2013-2016, \$120,000)
14. Climate Impacts Research Consortium, NOAA, Co-PI (2010-2015,\$100,000)
13. Future mega-fires and smoke impacts, Joint Fire Science Program, Co-PI (2011-2015, \$135,000)
12. Seattle Public Utility (SPU) Piloting Utility Modeling Applications (PUMA) project, Seattle Public Utilities, Co-PI, (2013-2014 , \$43,000)
11. Integrated Climate Scenarios of the Pacific Northwest, USGS, Co-PI (2012-2014 , \$45,000)
10. Extratropical Control of Gulf Surges: The Role of Rossby Wave Breaking and Associated Mesoscale Processes, NSF Climate and Large Scale Dynamics, PI (2008-2013, \$202,938)
9. NSF EPSCoR Innovative Working Group, PI (2012, \$8,000)
8. Climate Scenarios for Oregon and Washington, Bureau of Land Management, Co-PI (2012-2014, \$20,000)
7. WestWide Drought Tracker: Monitoring Drought at Fine Spatial Scales Across the Western US, NOAA TRACS, PI (2008-2012, \$125,000)
6. Downscaled datasets and evaluation for PUMA, Portland Water Bureau, PI, (2013-2014, \$25,000)
5. Toward next generation downscaling for hydrologic prediction in the Pacific Northwest, USGS, Co-PI (2011-2014 \$25,000)

4. Impacts of a Changing Climate on Water Resources in the Eastern Great Basin, Bureau of Reclamation, Co-PI (2011-2013, \$86,000)
3. Understanding climate impacts on fuels management, Joint Fire Science Program, Co-PI, (2008-2012, \$50,000)
2. USDA-Forest Service JVA, Fine Scale Climate Modeling, Agreement with Rocky Mountain Research Station, PI (2009-2012, \$15,000)
1. Downscaling for Climate Change Assessment, USFS WWETAC, PI (2009-2011, \$50,000)

* Dollar amount indicates Abatzoglou portion

SELECTED INVITED
PRESENTATIONS
2017-PRESENT

14. Abatzoglou, J.T., Climate-fire links in a changing world, EPRI Climate Readiness workshop, Seattle, WA, Sep 2023
13. Abatzoglou, J.T., Our Never-ending Drought?, California Water Commission, July 2022
12. Abatzoglou, J.T., Climate change and the rise of Western fire activity, Insurance Institute for Business + Home Safety Disaster Dynamics Academy, March 2022
11. Abatzoglou, J.T., Climate driven fire hazards, knowledge and limitations, Australia Bureau of Meteorology, November 2021
10. Abatzoglou, J.T., The rise of fire in the Western US, drivers, impacts, and solutions, National Academies of Engineers, October 2021
9. Abatzoglou, J.T., Running Dry? Quantifying California's ongoing drought, UCANR Water Series, September 2021
8. Abatzoglou, J.T., How and where climate change enables changing fire activity, Kavli Frontiers of Science, National Academies of Sciences, July 2020
7. Abatzoglou, J.T., Climate driven fire hazards, Knowledge and Limitations, NOAA CLIVAR Predictability, Predictions, and Applications Interface, July 2020
6. Abatzoglou, J.T., State of NW Climate: The 2019 Edition, Northwest Climate Conference, Portland, OR, Oct 2019
5. Abatzoglou, J.T., A Future of Hotter, Longer, and More Synchronous Fire Seasons, Corvallis, OR, April 2019
4. Abatzoglou, J.T., Fire across scales, Hobart, Australia, Dec 2018
3. Abatzoglou, J.T., State of NW Climate: The 2018 Edition, Northwest Climate Conference, Boise, ID, Oct 2018
2. Abatzoglou, J.T., How much has human-caused climate change influenced wildfire extent across western US forests?, GFDL Science Seminar Series, Princeton, NJ, Oct 2017
1. Abatzoglou, J.T., Idaho's Changing Climate, Idaho Climate Hearing at State Capitol, Boise, ID, Mar 2017

TEACHING
EXPERIENCE

Instructor

- Environmental Systems Science 110: Climate and Hydrology, UC Merced
- Environmental Engineering 116/Environmental Systems Science 116/Environmental Systems 232: Applied Climatology, UC Merced
- Engineering 91: Professional Development for Engineers
- Management of Complex Systems 252: Foundations, UC Merced
- Geography 100: Physical Geography, University of Idaho
- [Geography 301: Meteorology](#), University of Idaho
- [Geography 313/513: Global Climate Change](#), University of Idaho
- [Geography 401: Climatology](#), University of Idaho
- Geography 404: Weather Analysis and Forecasting, University of Idaho

- [Geography 501: Climate Seminar](#), University of Idaho
- Meteorology 112: Global Climate Change, San Jose State University
- Meteorology 171A: Synoptic Weather Analysis and Forecasting, San Jose State
- Meteorology 171B: Advanced Synoptic Weather Analysis and Forecasting, San Jose State
- Atmospheric Science 414/614: Physical Climatology, University of Nevada, Reno

Mentorship

- Ph.D. students (4): Kenneth Prewitt*, Ashwin Thomas*, Adam Jorge*, Abigail Lute, Lauren Parker
- M.S. students (12): Joshua Clark, James Favors, Holly Diehl, Jeremy Jenkins, Andrew Joros, Jacob Wolf, Donovan VanSant, Stephen Gillis, Abigail Lute, Paige Farrell, Wenlong Feng, Casey Roomsa
- Research Scientists (1): Katherine Hegewisch*
- Postdoctoral Researchers (4): Emily Williams*, Katherine Hegewisch, Lauren Parker, Renaud Barbero
- Undergraduate Researchers (7): Alexander Peterson, Stephen Gillis, Jet Johnstone, Blaise DeFranco, Valerie Laquindanum, Jerry Addison, Renee Young
- Graduate Committee member of 60 students since 2009

* indicates current advisees

SELECTED
UNIVERSITY AND
PROFESSIONAL
SERVICE

- Graduate Chair Management of Complex Systems (Jan 2021-)
- Department and University service: Department web developer (UI 2011-2016), Climate Change certificate (UI 2013-2020), Environmental Science Professional Science Masters Committee (UI 2012-2016), Northwest Knowledge Network Advisory Committee (UI 2017-2018), Data Science and Analytics proposal (UCM, 2020-2021), School of Engineering Executive Committee (UCM, 2021-2023), Vice Chair Graduate Council UC Merced (Aug 2022-)
- Associate Editor: *International Journal of Climatology* (Jan 2020-)
- Workshop and Conference Committees: Association of Pacific Coast Geographers committee 2010, AMS Fuels Treatment Planning in a Changing Climate Workshop 2011, AFE Fuels Treatment Planning in a Changing Climate Workshop 2011, NSF-EPSCoR Tristate session organizer 2012, NSF EPSCoR Innovative Working Group organizer 2012, Idaho Climate Forum organizer 2012, Northwest Climate Conference (chair 2015; committee 2016-2017)
- Journal Reviewer: *Geophysical Research Letters*, *Journal of Climate*, *Journal of Atmospheric Science*, *International Journal of Wildland Fire*, *The Quarterly Journal of the Royal Meteorological Society*, *International Journal of Climatology*, *Climatic Change*, *Journal of Geophysical Research-Atmospheres*, *Conservation Biology*, *Northwest Science*, *Fire Ecology*, *Rangeland Ecology and Management*, *Journal of American Water Resources Association*, *Bulletin of American Meteorological Society*, *Earth Interactions*, *Journal of Hydrometeorology*, *Journal of Applied Meteorology and Climatology*, *Biogeosciences*, *Journal of Applied and Theoretical Climatology*, *Computers and Geosciences*, *Proceedings of the National Academy of Sciences*, *Risk Analysis*, *Nature Geosciences*, *Current Climate Change Reports*, *International Journal of Biometeorology*, *Water Resources Research*, *Weather and Forecasting*, *PlosOne*, *Forest Ecology and Management*, *Journal of Water and Climate*, *Science Advances*, *Environment International*, *GeoHealth*, *New Phytologist*, *Global Change Biology*, *Climate Dynamics*, *Earth Interactions*, *IPCC*, *Nature Communications*

OUTREACH

- Media Interviews: 50-60 per year including *Los Angeles Times*, *New York Times*, *National Public Radio*, *Seattle Times*, *Capital Press*, *Scientific American*, *FiveThirtyEight*, *Huntington Post*, *Washington Post*, *The Atlantic*, *Vox*, *Washington Times*, *Climate Central*
- Idaho Climate-Economic Assessment: lead author (2022)
- Science communication: CIRCulator, NIDIS drought early warning system webinar series
- Science Education contributor: McCall Outdoor Science School, Tribal Climate Bootcamp, Master Foresters, REU programs, MetEd COMET
- Science advisor: Coeur d'Alene, Nez Perce, and Shoshone-Bannock tribes

PRODUCTS

[Climate Engine](#)
[Climate Toolbox](#)
[Gridded Surface Meteorological Data](#)
[CMIP5 Downscaled Climate Scenarios](#)
[California Climate Tracker](#)
[Westwide Drought Tracker](#)
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