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EDUCATION

- 2013 Ph.D., Department of Biology, Stanford University, Stanford, CA
- 2008 B.A. (Distinction and Honors), Human Biology, Stanford University, Stanford, CA

PROFESSIONAL EXPERIENCE

- 2016 – Present Assistant Professor, School of Biological Sciences, University of Utah, Salt Lake City, UT
- 2015 – 2016 Associate Research Scholar, Princeton Environmental Institute, Princeton University, Princeton NJ
- 2013 – 2015 National Oceanic and Atmospheric Administration Climate & Global Change Postdoctoral Fellow, Princeton Environmental Institute, Princeton University, Princeton, NJ

PEER REVIEWED PUBLICATIONS

71. Martinez-Vilalta*, J., **W.R.L. Anderegg***, G. Sapes, and A. Sala* (in press). Greater focus on water pools may improve our ability to understand and anticipate drought-induced mortality in plants. *New Phytologist*.
*Contributed equally
70. Love, D.M., M. D. Venturas, J. S. Sperry, P. D. Brooks, J. L. Pettit, Y. Wang, **W.R.L. Anderegg**, X. Tai, and D. S. Mackay (in press). Dependence of Aspen Stands on a Subsurface Water Subsidy: Implications for Climate Change Impacts. *Water Resources Research*.
69. **Anderegg, W.R.L.**, A.G. Konings, A.T. Trugman, K. Yu, D.R. Bowling, R. Gabbitas, D. Karp, S. Pacala, J.S. Sperry, B. Sulman, N. Zenes (2018). Hydraulic diversity of forests regulates ecosystem resilience during drought. *Nature*. 561: 538–541
- Reported by Scientific American; Featured by the UN Office for Disaster Risk Reduction
68. Trugman, A.T., M. Detto, M. K. Bartlett, D. Medvigy, **W.R.L. Anderegg**, C. Schwalm, B. Schaffer, and S. Pacala (2018). Tree carbon allocation explains forest drought-kill and recovery patterns. *Ecology Letters*. 21: 1552-1560
67. Liu, Z., A.P. Ballantyne, B. Poulter, **W.R.L. Anderegg**, W. Li, A. Bastos, and P. Ciais (2018). Precipitation thresholds regulate net carbon exchange at the continental scale. *Nature Communications*. 9: 3596
66. Venturas, M., J. Sperry, D. Love, E. Frehner, M. Allred, Y. Wang, and **W.R.L. Anderegg** (2018). A stomatal control model based on optimization of carbon gain versus hydraulic risk predicts aspen sapling responses to drought. *New Phytologist*. doi: 10.1111/nph.15333
65. Tai X., D.S. Mackay, J. Sperry, P. Brooks, **W.R.L. Anderegg**, L.B. Flanagan, S.B. Rood, and C. Hopkinson (2018). Distributed plant hydraulic and hydrological modeling to understand the susceptibility of riparian woodland trees to drought-induced mortality. *Water Resources Research*. 54: 4901-4915

64. **Anderegg, W.R.L.**, A. Wolf, A. Arango-Velez, B. Choat, D.J. Chmura, S. Jansen, T. Kolb, S. Li, F. Meinzer, P. Pita, V. Resco de Dios, J.S. Sperry, B.T. Wolfe, and S.W. Pacala (2018). Woody plants optimise stomatal behaviour relative to hydraulic risk. *Ecology Letters*. 21: 968-977
63. Trugman, A.T., D. Medvigy, J. Mankin, and **W.R.L. Anderegg** (2018). Soil moisture stress as a major driver of carbon cycle uncertainty. *Geophysical Research Letters*. doi.org/10.1029/2018GL078131
62. Stuart-Haëntjens, E., H.J. De Boeck, N.P. Lemoine, P. Mänd, G. Kröel-Dulay, I.K. Schmidt, A. Jentsch, A. Stampfli, **W.R.L. Anderegg**, M. Bahn, J. Kreyling, T. Wohlgemuth, F. Lloret, A.T. Classen, C.M. Gough, and M.D. Smith (2018). Mean annual precipitation predicts primary production resistance and resilience to extreme drought. *Science of the Total Environment*. 636: 360-366
61. Pellegrini, A.F.A., A. Ahström, S. E. Hobbie, P. B. Reich, L. Nieradzik, K. M. Robertson, A. C. Staver, B. Scharenbroch, A. Jumpponen, **W.R.L. Anderegg**, J. Randerson, and R.B. Jackson (2018). Fire frequency drives decadal changes in soil carbon and nitrogen and ecosystem productivity. *Nature*. 553: 194–198
60. Hartmann, H., C. Moura, **W.R.L. Anderegg**, and 14 others (2018). Research frontiers for improving our understanding of drought-induced tree and forest mortality. *New Phytologist*. 218: 15-28
59. Trugman, A.T., D. Medvigy, **W.R.L. Anderegg**, and S. Pacala (2018). Differential declines in Alaskan boreal forest vitality related to atmospheric drought stress. *Global Change Biology*. DOI: 10.1111/gcb.13952
58. Fisher, R.A., C.D. Koven, **W.R.L. Anderegg**, BO Christoffersen, MC Dietze, C Farrior, J Holm, G Hurtt, RG Knox, PJ Lawrence, JW Lichtstein, M Longo, A Matheny, D Medvigy, H Muller-Landau, TL Powell, SP Serbin, H Sato, J Shuman, B Smith, AT Trugman, T Viskari, H Verbeeck, E Weng, C Xu, X Xu, T Zhang and P Moorcroft (2018). Vegetation Demographics in Earth System Models: a review of progress and priorities. *Global Change Biology*. 34: 35-54
57. **Anderegg, W.R.L.** (2018) Quantifying seasonal and diurnal variation of stomatal behavior in a hydraulic-based stomatal optimization model. *Journal of Plant Hydraulics*. 5, e001. doi.org/10.20870/jph.2018.e001
56. Bowling, D., B.A Logan, K. Hufkens, D.M Aubrecht, A.D Richardson, S.P Burns, **W.R.L. Anderegg**, P.D Blanken and D. Eiriksson (2018). Limitations to winter and spring photosynthesis of a Rocky Mountain subalpine forest. *Agricultural and Forest Meteorology*. 252: 241-255
55. Truetter, C., **W.R.L. Anderegg**, F. Biondi, G.W. Koch, K. Ogle, C. Schwalm, M.E. Litvak, J.D. Shaw, and E. Ziaco. Seasonal Climate Responses and Drought Legacy Effects in Tree-Ring Chronologies from the Southwestern USA (2018). *Forest Ecology and Management*. doi: 10.1016/j.foreco.2018.01.044
54. Hartmann, H., B. Schuldt, T.G. Sanders, C. Macinnis-Ng, H.J. Boehmer, C.D. Allen, A. Bolte, T. Crowther, M.C. Hansen, B.E. Medlyn, N.K. Ruehr, and **W.R.L. Anderegg** (2018). Monitoring global tree mortality patterns and trends. Report from the VW symposium ‘Crossing scales and disciplines to identify global trends of tree mortality as indicators of forest health’. *New Phytologist*, 217: 984-987.
53. Klein, T., M. Zeppel, **W.R.L. Anderegg**, J. Bloemen, M. De Kauwe, P. Hudson, N. Ruehr, T. Powell, G. von Arx, and A. Nardini (2018). Embolism refilling and resilience against drought-induced mortality: Processes, trade-offs and life history strategies. *Ecological Research*. doi: 10.1007/s11284-018-1588y
52. Yu, K., D. Carr, **W.R.L. Anderegg**, K. Tully, P. D’Odorico (2018). Response of a facultative CAM plant and its competitive relationship with a grass to changes in rainfall regime. *Plant and Soil*. 2: 321-333

51. C.R. Schwalm, **W.R.L. Anderegg**, A.M. Michalak, F. Biondi, G. Koch, M. Litvak, K. Ogle, J.D. Shaw, A. Wolf, D.N. Huntzinger, K. Schaefer, J.B. Fisher, R. Cook, Y. Wei, Y. Fang, A. Jain, D. Hayes, M. Huang, and H. Tian (2017). Global patterns of drought recovery. *Nature*. 548: 202–205
 - Reported by: Reuters, Pacific Standard; Highlighted in *Nature News & Views*
50. Cobb, R., K. Ruthrof, D. Breshears, F. Lloret, T. Aakala, H.D. Adams, C.D. Allen, **W.R.L. Anderegg**, and 15 other authors (2017). Ecosystem Dynamics and Management After Forest Die-off: A Global Synthesis with Conceptual State-and-Transition Models. *Ecosphere*. 8: e02034
49. Li, Y., K. Guan, P. Gentine, A.G. Konings, F.C. Meinzer, J.S. Kimball, X. Xu, **W.R. L. Anderegg**, N.G. McDowell, J. Martínez-Vilalta, D.G. Long, and S.P. Good (2017). Estimating global ecosystem iso/anisohdry using active and passive microwave satellite data. *Journal of Geophysical Research – Biogeosciences*. 122: 3306–3321
48. **Anderegg, W.R.L.**, A. Wolf, A. Arango-Velez, B. Choat, D.J. Chmura, S. Jansen, T. Kolb, S. Li, F. Meinzer, P. Pita, V. Resco de Dios, J.S. Sperry, B.T. Wolfe, and S.W. Pacala (2017). Plant water potential improves prediction of empirical stomatal models. *PLoS ONE*. e0185481: doi.org/10.1371/journal.pone.0185481
47. H.D. Adams, M.J.B. Zeppel, **W.R.L. Anderegg**, Henrik Hartmann, and 48 others (2017). A multi-species synthesis of physiological mechanisms in drought-induced tree mortality. *Nature Ecology & Evolution*. 1: 1285–1291
46. Pellegrini, A.F.A., **W.R.L. Anderegg**, C.E.T. Paine, W.A. Hoffmann, T. Kartzinel, S. Rabin, D. Sheil, A.C. Franco, and S.W. Pacala (2017). Convergence of bark investment according to fire and climate structures ecosystem vulnerability to future change. *Ecology Letters*. 20: 307–316
 - Highlighted in *Nature* research highlights section
45. Ballantyne, A.P., W.K. Smith, **W.R.L. Anderegg**, P. Kauppi, J. Sarmiento, P.P. Tans, E. Shevliakova, Y. Pan, B. Poulter, A. Anav, P. Friedlingstein, R.A. Houghton, S. Running (2017) Accelerating net terrestrial carbon uptake during warming hiatus due to reduced respiration. *Nature Climate Change*. 7: 148-152
44. Tai, X., D.S. Mackay, **W.R.L. Anderegg**, J.S. Sperry, P.D. Brooks (2017). Plant hydraulics improves and topography mediates prediction of aspen mortality in southwestern USA. *New Phytologist*. 213: 113–127
43. Sperry, J.S., Y. Wang, **W.R.L. Anderegg**, M. Mencuccinni, D.S. Mackay, M. Venturas, and D. Love (2017). Predicting stomatal responses to the environment from the optimization of photosynthetic gain and hydraulic cost. *Plant, Cell & Environment*. 40: 816–830
42. Gazol, A., J.J. Camarero, **W.R.L. Anderegg**, and S.M. Vicente-Serrano (2017). Impacts of droughts on the growth resilience of Northern Hemisphere forests. *Global Ecology and Biogeography*. 26: 166–176
41. **Anderegg, W.R.L.**, T. Klein, M. Bartlett, L. Sack, A. Pellegrini, B. Choat, S. Jansen (2016). Meta-analysis reveals that hydraulic traits explain cross-species patterns of drought-induced tree mortality across the globe. *Proceedings of the National Academy of Sciences*. 113: 5024-5029
40. Wolf, A., **W.R.L. Anderegg**, and S.W. Pacala (2016). Optimal stomatal behavior with competition for water and risk of hydraulic impairment. *Proceedings of the National Academy of Sciences*. 113: E7222-E7230
39. Sperry, J.S., Y. Wang, B. Wolfe, D.S. Mackay, **W.R.L. Anderegg**, N.G. McDowell, and W.T. Pockman (2016). Pragmatic hydraulic theory predicts stomatal responses to climatic water deficits. *New Phytologist*. 212: 577–589

38. **Anderegg, W.R.L.**, J. Martinez-Vilalta, M. Cailleret, J.J. Camarero, B. Ewers, D. Galbraith, A. Gessler, R. Grote, C.Y. Huang, S. Levick, T.L. Powell, L. Rowland, R. Sánchez-Salguero, V. Trotsiuk (2016). When a tree dies in the forest: Scaling climate-driven tree mortality to ecosystem fluxes. *Ecosystems*. 19: 1133–1147
37. Cook, J., N. Oreskes, P.T. Doran, **W.R.L. Anderegg**, B. Verheggen, E. Maibach, J.S. Carlton, S. Lewandowsky, A.G. Skuce, S.A. Green, D. Nuccitelli, P. Jacobs, M. Richardson, B. Winkler, R. Painting and K. Rice (2016). Consensus on consensus: a synthesis of consensus estimates on human-caused global warming. *Environmental Research Letters* 11: 048002-9
 - Reported by: Washington Post, the Guardian, Grist, top-read post on Reddit
36. Smith, W.K., S.C. Reed, A.P. Ballantyne, C.C. Cleveland, **W.R.L. Anderegg**, W.R. Wieder, S.W. Running (2016). Large divergence of satellite and Earth system model estimates of global terrestrial CO₂ fertilization. *Nature Climate Change*. 6: 306-310
35. Wolf, A., N. Zimmermann, **W.R.L. Anderegg**, P. Busby, and J. Christenson. Altitudinal shifts of the native and introduced flora of California in the context of 20th-century warming (2016). *Global Ecology and Biogeography*. 25: 418–429
 - Reported by: The Atlantic
34. **Anderegg, W.R.L.**, C. Schwalm, F. Biondi, J.J. Camarero, G. Koch, M. Litvak, K. Ogle, J.D. Shaw, E. Shevliakova, A.P. Williams, A. Wolf, E. Ziacco, S. Pacala (2015). Pervasive drought legacies in forest ecosystems and their implications for carbon cycle models. *Science*. 349: 528-532.
 - Reported by: Newsweek, Washington Post, New York Times, Pacific Standard, & others
33. **Anderegg, W.R.L.**, A. Ballantyne, W.K. Smith, J. Majkut, S. Rabin, P.E. Kauppi, C. Beaulieu, R. Birdsey, J. Dunne, R.A. Houghton, R.B. Myneni, Y. Pan, J. Sarmiento, N. Serota, E. Shevliakova, P. Tans, and S. Pacala (2015). Tropical nighttime warming as a dominant driver of variability in the terrestrial carbon sink. *Proceedings of the National Academy of Sciences*. 12: 15591-15596
32. **Anderegg, W.R.L.**, and N. Diffenbaugh. Observed and projected climate trends and hotspots across the National Ecological Observatory Network (NEON) regions (2015). *Frontiers in Ecology and the Environment*. 13: 547–552
31. Quentin, A.G., E.A. Pinkard, M.G. Ryan, D.T. Tissue, L.S. Baggett, H.D. Adams, P. Maillard, J. Marchand, S.M. Lanhäuser, A. Lacoite, Y. Gibon, **W.R.L. Anderegg**, and 30 others (2015). Assessing non-structural carbohydrates: can results be quantitatively compared among laboratories? *Tree Physiology*. 35: 1146-1165
30. **Anderegg, W.R.L.**, A. Flint, C. Huang, L. Flint, J.A. Berry, F.W. Davis, J.S. Sperry, and C.B. Field (2015). Tree mortality predicted from drought-induced vascular damage. *Nature Geoscience*. 8: 367-371
 - Reported by: New York Times, Pacific Standard, Energy & Environment, Colorado Public Radio
29. **Anderegg, W.R.L.**, J.A. Hicke, R.A. Fisher, C.D. Allen, J. Aukema, B. Bentz, S. Hood, J.W. Lichstein, A.K. Macalady, N. McDowell, K. Raffa, Y. Pan, A. Sala, J. Shaw, N.L. Stephenson, C. Tague, M. Zeppel (2015). Tree mortality from drought, insects, and their interactions in a changing climate. *New Phytologist*. 208: 674-683
 - Reviewed in Faculty of 1000
28. Ballantyne, A.P., L.A. Cooper, R. Andres, P. Tans, J.C. Miller, C. Alden, J.W.C. White, G. Marland, R.A. Houghton, B. Stocker, R. Wanninkhof, **W.R.L. Anderegg**, M. DeGrandpre (2015). Audit of the Global Carbon Budget: Estimating errors and their impact on uptake uncertainty. *Biogeosciences*. 12: 2565-2584

27. **Anderegg, W. R. L.** (2015). Spatial and temporal variation in plant hydraulic traits and their relevance for climate change impacts on vegetation. *New Phytologist*. 205: 1008-1014
 - Winner of the New Phytologist Tansley Medal for outstanding contribution to plant sciences
26. Hartmann, H., H.D. Adams, **W.R.L. Anderegg**, S. Jansen, and M. Zeppel (2015). Research frontiers in drought-induced tree mortality: crossing scales and disciplines. *New Phytologist*. 205: 965-969.
25. **Anderegg, W. R. L.**, E. Callaway, M. Boykoff, G. Yohe and T. Root (2014). Awareness of both type I and II errors in climate science and assessment. *Bulletin of the American Meteorological Society*. 95: 1445–1451
24. Huang, C.Y., and **W.R.L. Anderegg** (2014). Vegetation and surface brightness dynamics after aspen forest die-off. *Journal of Geophysical Research*. 119: 1297-1308
23. **Anderegg, W. R. L.**, L.D.L. Anderegg, J.A. Berry, and C.B. Field (2014). Loss of whole-tree hydraulic conductance during severe drought and multi-year forest die-off. *Oecologia*. 175: 11-23
22. **Anderegg, W.R.L.**, and G. Goldsmith (2014). Public interest in climate change over the past decade and the effects of the ‘climategate’ media event. *Environmental Research Letters*. 054005: 1-8
21. **Anderegg, W. R. L.**, J. Kane, and L.D.L. Anderegg (2013). Consequences of widespread tree mortality triggered by drought and temperature stress. *Nature Climate Change*. 3: 30–36
 - Reported by: Huffington Post, New York Times, Climate Central, Voice of America
20. **Anderegg, W.R.L.**, L. Plavcova, L.D.L. Anderegg, U. Hacke, J. A. Berry, and C.B. Field (2013). Drought’s legacy: Hydraulic deterioration underlies widespread aspen die-off and portends increased future vulnerability. *Global Change Biology*. 19: 1188–1196
 - Reviewed in Faculty of 1000
19. Anderegg, L.D.L.*, **W.R.L. Anderegg***, J. 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
 - *Contributed equally
18. **Anderegg, W. R. L.** and L.D.L. Anderegg (2013). Hydraulic and carbohydrate changes in experimental drought-induced mortality of saplings in two conifer species. *Tree Physiology*. 33: 252-260
17. L.D.L. Anderegg, **W.R.L. Anderegg**, and J.A. Berry (2013). Not all droughts are created equal: translating meteorological drought into woody plant mortality. *Tree Physiology*. 33: 701-712
16. **Anderegg, W.R.L.**, J. A. Berry, D.D. Smith, J.S. Sperry, L.D.L. Anderegg, and C.B. Field (2012). The role of hydraulic and carbon stress in a widespread climate-induced forest die-off. *Proceedings of the National Academy of Sciences*. 109: 233-237.
 - Reported by: New York Times, Salt Lake City KSL News, High Country News, Utah Public Radio
 - Reviewed in Faculty of 1000
15. Huang, C., and **W.R.L. Anderegg** (2012). Large drought-induced aboveground live biomass losses in southern Rocky Mountain aspen forests. *Global Change Biology*. 18: 1016–1027
14. **Anderegg, W.R.L.** (2012) Complex aspen forest carbon and root dynamics during drought. *Climatic Change Letters*. 111: 983-991

13. **Anderegg, W.R.L.** and E.S. Callaway (2012). Infestation and hydraulic consequences of induced carbon starvation. *Plant Physiology*. 159: 1866-1874
12. **Anderegg, W. R. L.**, L.D.L. Anderegg, C. Sherman, and D. Karp (2012). Widespread aspen mortality alters understory plant communities. *Conservation Biology*. 26(6):1082-90
11. **Anderegg, W. R. L.**, J. A. Berry, C.B. Field (2012). Linking definitions, mechanisms, and modeling of drought-induced tree death. *Trends in Plant Science*. 17(12): 693-700
10. Zeppel, M., **W.R.L. Anderegg**, and Adams, H.D. (2012). Forest mortality due to drought: latest insights, evidence and unresolved questions on physiological pathways and consequences of tree death. *New Phytologist*. 197(2): 372-374.
9. Wolf, A., **W.R.L. Anderegg**, S.J. Ryan, and J.A. Christensen (2011). Robust Detection of Plant Species Range Shifts Under Biased Sampling Regimes. *Ecosphere*. 2(10):115.
8. Wolf, A., and **W.R.L. Anderegg** (2011). Technical Comment on Changes in Climatic Water Balance Drive Downhill Shifts in Plant Species' Optimum Elevations. *Science* 334, 177.
7. Zeppel, M., Adams, H.D., and **W.R.L. Anderegg** (2011). Mechanistic causes of tree drought mortality: recent results, unresolved questions and future research needs. *New Phytologist*. 192:800-803
6. **Anderegg, W.R.L.**, J.W. Prall, and J. Harold (2010). Reply to Bodenstein: Contextual data about the relative scale of opposing scientific communities. *Proceedings of the National Academy of Sciences*. 107: E158
5. **Anderegg, W.R.L.**, J.W. Prall, and J. Harold (2010). Reply to Aarstad: Risk management versus "truth." *Proceedings of the National Academy of Sciences*. 107: E154.
4. **Anderegg, W.R.L.**, J.W. Prall, and J. Harold (2010). Reply to O'Neill & Boykoff: Objective classification of climate experts. *Proceedings of the National Academy of Sciences*. 107: E152
3. **Anderegg, W.R.L.**, J.W. Prall, J. Harold, and S.H. Schneider (2010). Expert credibility in climate change. *Proceedings of the National Academy of Sciences*. 107: 12107-12110.
 - Reported by: Science, Time, Scientific American, BBC, The Guardian, USA Today, New York Times
 - Top 50 Most-Read Papers, PNAS, June 2010 – December 2012
2. **Anderegg, W.R.L.** (2010) The Ivory Lighthouse: Communicating climate change effectively. *Climatic Change*. 101:655–662
1. **Anderegg, W.R.L.** (2010) Moving Beyond Scientific Agreement. *Climatic Change*. 101:331–3377

PUBLICATIONS IN REVIEW

Anderegg, W.R.L., A.T. Trugman, D.R. Bowling, S. Tuttle. Plant functional traits and climate influence drought intensification and land-atmosphere feedbacks. *Nature Geoscience*. Under review.

Anderegg, W.R.L., L.D.L. Anderegg, and C.Y. Huang. An early warning system for drought-induced tree mortality. *New Phytologist*. Under review.

Trugman, A.T., L.D.L. Anderegg, B.T. Wolfe, B. Birami, N.K. Ruehr, M. Detto, M.K. Bartlett, and **W.R.L. Anderegg**. How green will the Earth be? Tree allocation strategies mediate future forest productivity. *Global Change Biology*. Under review.

Trugman, A.T., J.S. Sperry, and **W.R.L. Anderegg**. Leveraging plant hydraulics to yield predictive and dynamic plant leaf allocation in vegetation models with climate change. *New Phytologist*. Under review.

Sapes, G., R. Roskilly, S. Dobrowski, M. Maneta, **W.R.L. Anderegg**, J. Martínez-Vilalta, and A. Sala. Plant water content integrates hydraulics and carbon depletion to predict population-level drought-induced seedling mortality. *Plant, Cell & Environment*. Under review.

Yu, K., W.K. Smith, A.T. Trugman, R. Condit, S.P. Hubbell, J. Sardans, C. Peng, J. Peñuelas, and **W.R.L. Anderegg**. Pervasive decreases in vegetation carbon residence time across global forest biomes. *Proceedings of the National Academy of Sciences, USA*. Under review.

Yu, K., G.R. Goldsmith, Y. Wang, and **W.R.L. Anderegg**. Quantifying phylogenetic and biogeographic controls of plant nighttime stomatal conductance. *New Phytologist*. Under review.

Yu, K., P. D'Odorico, S. Collins, C. David, A. Porporato, **W.R.L. Anderegg**, L.X. Wang, W. Gilhooly, A. Bhattachan, S. Hartzell, M. Bartlett, J. Yin, Y.L. He, M. Tatlhego, and J. Fuentes. Plants with Crassulacean Acid Metabolism outcompete grasses under carbon dioxide enrichment and drought. *Ecosphere*. Under review.

Rao, K., **W.R.L. Anderegg**, A. Sala, J. Martínez-Vilalta, A.G. Konings. Remotely Sensed Vegetation Optical Depth as an Indicator of Drought-driven Tree Mortality. *Global Change Biology*. Under review.

Holm, J.A., A. Rammig, D.M. Medvigy, B. Smith, J.S. Dukes, M. Mishurov, X. Xu, J.W. Lichstein, C. Beier, C.D. Allen, K.S. Larsen, Y. Luo, C. Ficken, W.T. Pockman, and **W.R.L. Anderegg**. Exploring plant mortality and ecosystem recovery from unprecedented climate extremes: unifying hypotheses to guide modeling and experimental studies. *Global Change Biology*. Under review.

Hammond, W., K. Yu, L. Wilson, R. Will, **W.R.L. Anderegg**, and H. Adams. Dead or dying? Quantifying the point of no return from hydraulic failure in drought-induced tree mortality. *New Phytologist*. Under review.

Batlloiri, E., F. Lloret, T. Aakala, **W.R.L. Anderegg** and 23 other authors. Forest replacement patterns following drought-induced mortality worldwide. *Nature Climate Change*. Under review.

BOOK CHAPTERS

Anderegg, W.R.L. and F.C. Meinzer (2015). Wood anatomy and plant hydraulics in a changing climate. *In* Functional and Ecological Xylem Anatomy. Springer. Ed U. Hack. Springer Publishing.

AWARDS

2018 Packard Foundation Fellow for Science and Engineering

2018 Early Career Fellow of the Ecological Society of America (2018-2022)

2016 Early Career Award, American Geophysical Union – Global Environmental Change Focus Group. Awarded to an early career scientist for outstanding contributions to research, education, or societal impacts in the area of global environmental change.

2016	Winner – Blavatnik Regional Award for Young Scientists. Awarded annually to top postdoctoral researcher in life sciences from New York, New Jersey, and Connecticut.
2014	Tansley Medal, New Phytologist Trust. International award for outstanding contributions to plant science research by an early career scholar.
2013	NOAA Climate and Global Change Postdoctoral Fellowship
2012	Melendez Wright Climate Change Fellowship, National Park Service, Declined
2011	Excellence in the Academy Award – New Scholar, National Education Association
2010	Graduate Research Fellowship (GRF), National Science Foundation (NSF), Declined
2010	Office of Science Graduate Fellowship (SCGF), Department of Energy (DOE)

GRANTS (Total: ~\$5.2 million as PI or Co-PI)		Amount
2018 – 2023	Packard Foundation Fellowship (PI): Predicting the future of Earth’s forests in a rapidly changing climate	\$875,000
2018 – 2021	NSF MacroSystems Biology (Co-PI): Leveraging NEON to Build a Predictive Cross-scale Theory of Ecosystem Transpiration (PI: G. Bowen, U Utah)	\$1,870,000
2018 – 2021	USDA National Institute of Food and Agriculture (PI): Can diversity of tree drought response traits improve productivity and sustainability of western US forests and their ecosystem services?	\$500,000
2017 – 2021	NSF Coupled Natural-Human Systems (PI/Co-lead with B. Codding): Climate change, ecosystem dynamics, and traditional livelihoods in Utah piñon-juniper woodlands	\$1,470,000
2015 – 2018	NSF Integrated/Organismal (Collaborator/Senior Personnel): Integrating plant hydraulics with climate and hydrology to understand and predict responses to climate change (PI: J. Sperry, U Utah)	\$661,000
2015 – 2016	NSF DEB (Collaborator/Senior Personnel): EAGER-NEON: Detecting disturbance and ecosystem response in continental observatory networks (\$8,000 to Anderegg Lab; PI: A. Ballantyne, U Montana)	\$300,000
2014 – 2016	NSF Macrosystems (PI): Extreme events and ecological acclimation: Scaling from cells to ecosystems	\$500,000
2013 – 2015	NOAA Climate and Global Change Postdoctoral Fellowship	\$140,000
2012 – 2014	NSF RAPID (lead): Using open-source ecology to examine tree physiological response and mortality across species during the 2012 United States drought	\$100,000

TEACHING

Course Instructor University of Utah, Biology 3460: Global Environmental Issues (2017-present)

Guest Lectures University of Utah: Biology of Variation, Biology in the 21st Century, Introduction to Environmental Studies and Sustainability, Advanced Research Topics in Biology, ACCESS Summer Institute, Energy and Society, Field Methods in Environmental Humanities (2016-present)

Course Instructor Stanford University, Biology 323: California Plant Ranges with 20th Century Climate Change Graduate Seminar. (2010)

SELECTED INVITED PRESENTATIONS

Predicting multi-scale forest responses to drought. Invited Speaker at the Program in Ecology, Duke University, January 2019.

Linking stomata and plant hydraulics to predict forest responses to drought. Invited Presentation at Gordon Research Conference: Multiscale Vascular Plant Biology, Mount Snow, VT, June 2018.

Quantifying carbon turnover time in forest inventory, satellite, and Earth system model data. Invited presentation at the European Geophysical Union annual meeting, April 2018.

Can plant diversity buffer ecosystem response to drought? Invited presentation at the American Geophysical Union annual meeting, December 2017.

Optimal stomatal control aims to manage hydraulic damage. Invited presentation at the American Geophysical Union annual meeting, December 2017.

Forest hydraulic diversity and climate change. **Invited Keynote** at the Inauguration of the Swiss Forest Lab, Zurich, Switzerland, September 2017.

Linking stomata and plant hydraulics to predict plant responses to drought. Invited Presentation at the New Phytologist Next Generation Plant Scientists Symposium, Norwich, UK, July 2017.

Towards a global forest mortality monitoring network: Lessons from physiology. **Invited Keynote** at the Voltzswagen Foundation Mortality Symposium, Hanover, Germany, June 2017.

Global determinants of forest recovery from drought. Invited presentation at the American Geophysical Union annual meeting, December 2016.

Meta-analysis reveals that hydraulic traits explain drought-induced mortality across the globe. Invited presentation at the American Geophysical Union annual meeting, December 2016.

UNREFEREED PUBLICATIONS

Anderegg, W.R.L. Wildfires are white-hot signs of climate change in our backyard. *Denver Post*, Op-Ed. July 2018

Anderegg, W.R.L. When Forests Die: Climate Change and Our Heritage. *Hatch Magazine*, July 2017

Anderegg, W.R.L. Predictable Futures. *Analog: Science Fiction and Fact*, September 2014

Anderegg, W.R.L. Diagnosis Earth: The Climate Change Debate. *Thought and Action: Magazine of the Higher Education Association*, Fall 2010

- Awarded Excellence in the Academy Award for New Scholar by the National Education Association

Anderegg, W.R.L. Biosphere. In *The Encyclopedia of Climate and Weather*, Oxford University Press, 2010.

Anderegg, W.R.L. Good night, sweet trees: aspens, climate change, and the future of western forests. *High Country News*, March 1, 2010

Anderegg, W.R.L. and J. Harold. Climate science and the dynamics of expert consensus. *Stanford Center for Conservation Biology*, 2009.

<http://www.stanford.edu/group/CCB/articles/Anderegg_ClimateConsensus_Report2009.pdf>

SELECTED SERVICE

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| 2018-present | Executive Committee of the Global Change and Sustainability Center at the University of Utah |
| 2018-present | Contributing Author, Intergovernmental Panel on Climate Change (IPCC), Special Report on Climate Change and Land
Chapter 2: Land-Climate Interactions |
| 2018 | Co-Organizer, American Geophysical Union, Annual Meeting, Organized Oral Session: Plant hydraulics in the Earth system |
| 2017-present | Executive Committee, Society, Water, and Climate Research Group, University of Utah |
| 2017 | Panelist at “Warming Up to Climate Change: Risks and Opportunities in Utah: A Seminar for Utah Opinion Leaders.” Event for Utah and federal policy-makers. |
| 2016-present | Associate Deputy Editor, <i>Climatic Change</i> |
| 2016 | Search Committee, Society, Water, and Climate Cluster Hires, University of Utah. |
| 2014 | Co-Organizer, International Interdisciplinary Tree Mortality Workshop, Jena, Germany |
| 2014 | Co-Organizer, Ecological Society of America, Organized Oral Session: Physiological mechanisms, patterns, and modeling of drought-induced tree mortality |
| 2013 | Primary Organizer, Ecological Society of America, Organized Oral Session: Modeling drought and insect-induced tree mortality |
| 2013 | Primary Organizer, National Center for Ecological Analysis and Synthesis, Frontiers in modeling drought and insect-induced tree mortality working group |
| 2011 – 2014 | Chapter Scientist, Intergovernmental Panel on Climate Change (IPCC), Working Group II
Chapter 26: North America |
| 2011 – 2014 | Contributing Author, Intergovernmental Panel on Climate Change (IPCC), Working Group II
Chapter 4: Ecosystems
Chapter 26: North America |

Co-Organizer: Drought Open-Source Ecology project – a collaborative research coordination involving >50 research groups around the US to look at the impacts of the severe summer 2012 drought on forests; funded by NSF RAPID.

Reviewer: Advances in Water Resources, American Naturalist, Animal Conservation, Biogeosciences, BioScience, Bulletin of the American Meteorological Society, Climatic Change, Ecology, Ecology Letters, Ecological Applications, Ecosphere, Ecosystems, Environmental Management, Environmental Research Letters, Functional Ecology, Geophysical Research Letters, Global Change Biology, Global Ecology and Biogeography, Journal of Advances in Modeling Earth Systems, Journal of Geophysical Research, Journal of Applied Meteorology and Climatology, Nature, Nature Climate Change, Nature Geoscience, New Phytologist, Plant, Cell & Environment, Plants, PLoS One, Proceedings of the National Academy of Sciences, Science, Tree Physiology, Trees, Water Resources Research