

# Travis E Huxman

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

80  
papers

8,465  
citations

42  
h-index

83  
g-index

83  
ext. papers

9,646  
ext. citations

7.9  
avg, IF

5.57  
L-index

#	Paper	IF	Citations
80	Precipitation pulses and carbon fluxes in semiarid and arid ecosystems. <i>Oecologia</i> , <b>2004</b> , 141, 254-68	2.9	815
79	Convergence across biomes to a common rain-use efficiency. <i>Nature</i> , <b>2004</b> , 429, 651-4	50.4	786
78	Temperature sensitivity of drought-induced tree mortality portends increased regional die-off under global-change-type drought. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 7063-6	11.5	719
77	ECOHYDROLOGICAL IMPLICATIONS OF WOODY PLANT ENCROACHMENT. <i>Ecology</i> , <b>2005</b> , 86, 308-319	4.6	500
76	A multi-species synthesis of physiological mechanisms in drought-induced tree mortality. <i>Nature Ecology and Evolution</i> , <b>2017</b> , 1, 1285-1291	12.3	469
75	Elevated CO <sub>2</sub> increases productivity and invasive species success in an arid ecosystem. <i>Nature</i> , <b>2000</b> , 408, 79-82	50.4	465
74	Functional tradeoffs determine species coexistence via the storage effect. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 11641-5	11.5	298
73	Leaf development and demography explain photosynthetic seasonality in Amazon evergreen forests. <i>Science</i> , <b>2016</b> , 351, 972-6	33.3	252
72	Water and climate: Recognize anthropogenic drought. <i>Nature</i> , <b>2015</b> , 524, 409-11	50.4	210
71	Response of net ecosystem gas exchange to a simulated precipitation pulse in a semi-arid grassland: the role of native versus non-native grasses and soil texture. <i>Oecologia</i> , <b>2004</b> , 141, 295-305	2.9	201
70	Ecohydrological impacts of woody-plant encroachment: seasonal patterns of water and carbon dioxide exchange within a semiarid riparian environment. <i>Global Change Biology</i> , <b>2006</b> , 12, 311-324	11.4	179
69	Ecohydrological consequences of drought- and infestation- triggered tree die-off: insights and hypotheses. <i>Ecohydrology</i> , <b>2012</b> , 5, 145-159	2.5	171
68	Effects of seasonal drought on net carbon dioxide exchange from a woody-plant-encroached semiarid grassland. <i>Journal of Geophysical Research</i> , <b>2009</b> , 114,		162
67	Soil Texture Drives Responses of Soil Respiration to Precipitation Pulses in the Sonoran Desert: Implications for Climate Change. <i>Ecosystems</i> , <b>2008</b> , 11, 961-979	3.9	162
66	Nonstructural leaf carbohydrate dynamics of <i>Pinus edulis</i> during drought-induced tree mortality reveal role for carbon metabolism in mortality mechanism. <i>New Phytologist</i> , <b>2013</b> , 197, 1142-1151	9.8	161
65	Partitioning of evapotranspiration and its relation to carbon dioxide exchange in a Chihuahuan Desert shrubland. <i>Hydrological Processes</i> , <b>2006</b> , 20, 3227-3243	3.3	161
64	Climate and vegetation water use efficiency at catchment scales. <i>Hydrological Processes</i> , <b>2009</b> , 23, 2409-2414	3.4	154

63	Partitioning evapotranspiration across gradients of woody plant cover: Assessment of a stable isotope technique. <i>Geophysical Research Letters</i> , <b>2010</b> , 37, n/a-n/a	4.9	139
62	Interactions Between Biogeochemistry and Hydrologic Systems. <i>Annual Review of Environment and Resources</i> , <b>2009</b> , 34, 65-96	17.2	117
61	Hysteresis of soil moisture spatial heterogeneity and the homogenizing effect of vegetation. <i>Water Resources Research</i> , <b>2010</b> , 46,	5.4	115
60	Contemporary climate change in the Sonoran Desert favors cold-adapted species. <i>Global Change Biology</i> , <b>2010</b> , 16, 1555-1565	11.4	109
59	How Water, Carbon, and Energy Drive Critical Zone Evolution: The Jemez-Santa Catalina Critical Zone Observatory. <i>Vadose Zone Journal</i> , <b>2011</b> , 10, 884-899	2.7	96
58	Resilience and resistance of ecosystem functional response to a precipitation pulse in a semi-arid grassland. <i>Journal of Ecology</i> , <b>2006</b> , 94, 23-30	6	92
57	Within-plant isoprene oxidation confirmed by direct emissions of oxidation products methyl vinyl ketone and methacrolein. <i>Global Change Biology</i> , <b>2012</b> , 18, 973-984	11.4	87
56	The relative controls of temperature, soil moisture, and plant functional group on soil CO <sub>2</sub> efflux at diel, seasonal, and annual scales. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		84
55	The temperature responses of soil respiration in deserts: a seven desert synthesis. <i>Biogeochemistry</i> , <b>2011</b> , 103, 71-90	3.8	84
54	Cost-effective ecological restoration. <i>Restoration Ecology</i> , <b>2015</b> , 23, 800-810	3.1	81
53	An open system framework for integrating critical zone structure and function. <i>Biogeochemistry</i> , <b>2011</b> , 102, 15-29	3.8	81
52	Nocturnal stomatal conductance responses to rising [CO <sub>2</sub> ], temperature and drought. <i>New Phytologist</i> , <b>2012</b> , 193, 929-938	9.8	80
51	Differential daytime and night-time stomatal behavior in plants from North American deserts. <i>New Phytologist</i> , <b>2012</b> , 194, 464-476	9.8	78
50	Photosynthetic responses of Mojave Desert shrubs to free air CO <sub>2</sub> enrichment are greatest during wet years. <i>Global Change Biology</i> , <b>2003</b> , 9, 276-285	11.4	64
49	Coevolution of nonlinear trends in vegetation, soils, and topography with elevation and slope aspect: A case study in the sky islands of southern Arizona. <i>Journal of Geophysical Research F: Earth Surface</i> , <b>2013</b> , 118, 741-758	3.8	63
48	Photosynthetic resource-use efficiency and demographic variability in desert winter annual plants. <i>Ecology</i> , <b>2008</b> , 89, 1554-63	4.6	62
47	Adaptive differences in plant physiology and ecosystem paradoxes: insights from metabolic scaling theory. <i>Global Change Biology</i> , <b>2007</b> , 13, 591-609	11.4	62
46	Effects of Drought Manipulation on Soil Nitrogen Cycling: A Meta-Analysis. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2017</b> , 122, 3260-3272	3.7	61

45	An integrated modelling framework of catchment-scale ecohydrological processes: 1. Model description and tests over an energy-limited watershed. <i>Ecohydrology</i> , <b>2014</b> , 7, 427-439	2.5	59
44	Increases in Desert Shrub Productivity under Elevated Carbon Dioxide Vary with Water Availability. <i>Ecosystems</i> , <b>2006</b> , 9, 374-385	3.9	57
43	In situ photosynthetic freezing tolerance for plants exposed to a global warming manipulation in the Rocky Mountains, Colorado, USA. <i>New Phytologist</i> , <b>2004</b> , 162, 331-341	9.8	53
42	Temperature and precipitation controls over leaf- and ecosystem-level CO <sub>2</sub> flux along a woody plant encroachment gradient. <i>Global Change Biology</i> , <b>2012</b> , 18, 1389-1400	11.4	52
41	CO <sub>2</sub> ENRICHMENT REDUCES THE ENERGETIC COST OF BIOMASS CONSTRUCTION IN AN INVASIVE DESERT GRASS. <i>Ecology</i> , <b>2004</b> , 85, 100-106	4.6	46
40	Seasonal and drought-related changes in leaf area profiles depend on height and light environment in an Amazon forest. <i>New Phytologist</i> , <b>2019</b> , 222, 1284-1297	9.8	44
39	Age-dependent leaf physiology and consequences for crown-scale carbon uptake during the dry season in an Amazon evergreen forest. <i>New Phytologist</i> , <b>2018</b> , 219, 870-884	9.8	43
38	The Landscape Evolution Observatory: A large-scale controllable infrastructure to study coupled Earth-surface processes. <i>Geomorphology</i> , <b>2015</b> , 244, 190-203	4.3	38
37	Woody plant encroachment impacts on soil carbon and microbial processes: results from a hierarchical Bayesian analysis of soil incubation data. <i>Plant and Soil</i> , <b>2009</b> , 320, 153-167	4.2	36
36	Understanding past, contemporary, and future dynamics of plants, populations, and communities using Sonoran Desert winter annuals. <i>American Journal of Botany</i> , <b>2013</b> , 100, 1369-80	2.7	35
35	Quantifying the timescales over which exogenous and endogenous conditions affect soil respiration. <i>New Phytologist</i> , <b>2014</b> , 202, 442-454	9.8	35
34	Antecedent Conditions Influence Soil Respiration Differences in Shrub and Grass Patches. <i>Ecosystems</i> , <b>2013</b> , 16, 1230-1247	3.9	33
33	Phenotypic plasticity and precipitation response in Sonoran Desert winter annuals. <i>American Journal of Botany</i> , <b>2010</b> , 97, 405-11	2.7	33
32	Can biological invasions induce desertification?. <i>New Phytologist</i> , <b>2009</b> , 181, 512-5	9.8	33
31	Phenotypic selection favors missing trait combinations in coexisting annual plants. <i>American Naturalist</i> , <b>2013</b> , 182, 191-207	3.7	32
30	Quantifying soil surface change in degraded drylands: Shrub encroachment and effects of fire and vegetation removal in a desert grassland. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		32
29	Water-use efficiency and relative growth rate mediate competitive interactions in Sonoran Desert winter annual plants. <i>American Journal of Botany</i> , <b>2013</b> , 100, 2009-15	2.7	31
28	Traversing the Wasteland: A Framework for Assessing Ecological Threats to Drylands. <i>BioScience</i> , <b>2020</b> , 70, 35-47	5.7	27

27	Shrub encroachment alters sensitivity of soil respiration to temperature and moisture. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117,		24
26	Transitions from grassland to savanna under drought through passive facilitation by grasses. <i>Journal of Vegetation Science</i> , <b>2014</b> , 25, 937-946	3.1	23
25	Sensitivity of regional evapotranspiration partitioning to variation in woody plant cover: insights from experimental dryland tree mosaics. <i>Global Ecology and Biogeography</i> , <b>2015</b> , 24, 1040-1048	6.1	23
24	Empirical evidence for resilience of tropical forest photosynthesis in a warmer world. <i>Nature Plants</i> , <b>2020</b> , 6, 1225-1230	11.5	22
23	Landscape and environmental controls over leaf and ecosystem carbon dioxide fluxes under woody plant expansion. <i>Journal of Ecology</i> , <b>2013</b> , 101, 1471-1483	6	19
22	Climate controls over ecosystem metabolism: insights from a fifteen-year inductive artificial neural network synthesis for a subalpine forest. <i>Oecologia</i> , <b>2017</b> , 184, 25-41	2.9	17
21	Seasonal dry-down rates and high stress tolerance promote bamboo invasion above and below treeline. <i>Plant Ecology</i> , <b>2016</b> , 217, 1219-1234	1.7	17
20	Functional ecology of shrub seedlings after a natural recruitment event at the Nevada Desert FACE Facility. <i>Global Change Biology</i> , <b>2003</b> , 9, 718-728	11.4	16
19	Rising temperature may negate the stimulatory effect of rising CO on growth and physiology of Wollemi pine ( <i>Wollemia nobilis</i> ). <i>Functional Plant Biology</i> , <b>2015</b> , 42, 836-850	2.7	14
18	The interaction of drought and habitat explain space-time patterns of establishment in saguaro ( <i>Carnegiea gigantea</i> ). <i>Ecology</i> , <b>2018</b> , 99, 621-631	4.6	14
17	Land surface modeling inside the Biosphere 2 tropical rain forest biome. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		13
16	Rapid alignment of functional trait variation with locality across the invaded range of Sahara mustard ( <i>Brassica tournefortii</i> ). <i>American Journal of Botany</i> , <b>2018</b> , 105, 1188-1197	2.7	10
15	Land degradation in the Thar Desert. <i>Frontiers in Ecology and the Environment</i> , <b>2009</b> , 7, 517-518	5.5	10
14	Effectiveness of seed sowing techniques for sloped restoration sites. <i>Restoration Ecology</i> , <b>2017</b> , 25, 942-952	3.52	9
13	The effect of soil inoculants on seed germination of native and invasive species. <i>Botany</i> , <b>2017</b> , 95, 469-480,		9
12	Functional trait trade-off and species abundance: insights from a multi-decadal study. <i>Ecology Letters</i> , <b>2019</b> , 22, 583-592	10	9
11	Predicting drought tolerance from slope aspect preference in restored plant communities. <i>Ecology and Evolution</i> , <b>2017</b> , 7, 3123-3131	2.8	9
10	Native shrubland and managed buffelgrass savanna in drylands: Implications for ecosystem carbon and water fluxes. <i>Agricultural and Forest Meteorology</i> , <b>2019</b> , 268, 269-278	5.8	8

9	Cryptic phenology in plants: Case studies, implications, and recommendations. <i>Global Change Biology</i> , <b>2019</b> , 25, 3591-3608	11.4	8
8	Multiple introductions and population structure during the rapid expansion of the invasive Sahara mustard (). <i>Ecology and Evolution</i> , <b>2019</b> , 9, 7928-7941	2.8	6
7	Restoring a Mediterranean-climate shrub community with perennial species reduces future invasion. <i>Restoration Ecology</i> , <b>2019</b> , 27, 298-307	3.1	4
6	Biological invasions and climate change amplify each other's effects on dryland degradation. <i>Global Change Biology</i> , <b>2022</b> , 28, 285-295	11.4	4
5	Warming as a Driver of Vegetation Loss in the Sonoran Desert of California. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2021</b> , 126, e2020JG005942	3.7	4
4	Analyzing High-Frequency Soil Respiration Using a Probabilistic Model in a Semiarid, Mediterranean Climate. <i>Journal of Geophysical Research G: Biogeosciences</i> , <b>2019</b> , 124, 509-520	3.7	2
3	Early life history responses and phenotypic shifts in a rare endemic plant responding to climate change <b>2019</b> , 7, coz076		2
2	Impacts of competition and herbivory on native plants in a community-engaged, adaptively managed restoration experiment. <i>Conservation Science and Practice</i> , <b>2019</b> , 1, e122	2.2	0
1	Sahara mustard as a major threat to desert biodiversity in the southwest United States and the need to integrate contemporary methods to understand its biology. <i>Ecology and Evolution</i> , <b>2020</b> , 10, 14453-14455	2.8	