Travis E Huxman

List of Publications by Year in Descending Order

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	Biological invasions and climate change amplify each other's effects on dryland degradation. *Global Change Biology*, **2022**, 28, 285-295	11.4	4
79	Warming as a Driver of Vegetation Loss in the Sonoran Desert of California. *Journal of Geophysical Research G: Biogeosciences*, **2021**, 126, e2020JG005942	3.7	4
78	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. *Ecology and Evolution*, **2020**, 10, 14453-14455	2.8	
77	Traversing the Wasteland: A Framework for Assessing Ecological Threats to Drylands. *BioScience*, **2020**, 70, 35-47	5.7	27
76	Empirical evidence for resilience of tropical forest photosynthesis in a warmer world. *Nature Plants*, **2020**, 6, 1225-1230	11.5	22
75	Functional trait trade-off and species abundance: insights from a multi-decadal study. *Ecology Letters*, **2019**, 22, 583-592	10	9
74	Native shrubland and managed buffelgrass savanna in drylands: Implications for ecosystem carbon and water fluxes. *Agricultural and Forest Meteorology*, **2019**, 268, 269-278	5.8	8
73	Seasonal and drought-related changes in leaf area profiles depend on height and light environment in an Amazon forest. *New Phytologist*, **2019**, 222, 1284-1297	9.8	44
72	Analyzing High-Frequency Soil Respiration Using a Probabilistic Model in a Semiarid, Mediterranean Climate. *Journal of Geophysical Research G: Biogeosciences*, **2019**, 124, 509-520	3.7	2
71	Restoring a Mediterranean-climate shrub community with perennial species reduces future invasion. *Restoration Ecology*, **2019**, 27, 298-307	3.1	4
70	Multiple introductions and population structure during the rapid expansion of the invasive Sahara mustard (). *Ecology and Evolution*, **2019**, 9, 7928-7941	2.8	6
69	Cryptic phenology in plants: Case studies, implications, and recommendations. *Global Change Biology*, **2019**, 25, 3591-3608	11.4	8
68	Early life history responses and phenotypic shifts in a rare endemic plant responding to climate change **2019**, 7, coz076		2
67	Impacts of competition and herbivory on native plants in a community-engaged, adaptively managed restoration experiment. *Conservation Science and Practice*, **2019**, 1, e122	2.2	0
66	Age-dependent leaf physiology and consequences for crown-scale carbon uptake during the dry season in an Amazon evergreen forest. *New Phytologist*, **2018**, 219, 870-884	9.8	43
65	The interaction of drought and habitat explain space-time patterns of establishment in saguaro (Carnegiea gigantea). *Ecology*, **2018**, 99, 621-631	4.6	14
64	Rapid alignment of functional trait variation with locality across the invaded range of Sahara mustard (Brassica tournefortii). *American Journal of Botany*, **2018**, 105, 1188-1197	2.7	10

63	Climate controls over ecosystem metabolism: insights from a fifteen-year inductive artificial neural network synthesis for a subalpine forest. *Oecologia*, **2017**, 184, 25-41	2.9	17
62	Effectiveness of seed sowing techniques for sloped restoration sites. *Restoration Ecology*, **2017**, 25, 942-952	3.1	9
61	The effect of soil inoculants on seed germination of native and invasive species. *Botany*, **2017**, 95, 469-480	1.3	9
60	Predicting drought tolerance from slope aspect preference in restored plant communities. *Ecology and Evolution*, **2017**, 7, 3123-3131	2.8	9
59	Effects of Drought Manipulation on Soil Nitrogen Cycling: A Meta-Analysis. *Journal of Geophysical Research G: Biogeosciences*, **2017**, 122, 3260-3272	3.7	61
58	A multi-species synthesis of physiological mechanisms in drought-induced tree mortality. *Nature Ecology and Evolution*, **2017**, 1, 1285-1291	12.3	469
57	Leaf development and demography explain photosynthetic seasonality in Amazon evergreen forests. *Science*, **2016**, 351, 972-6	33.3	252
56	Seasonal dry-down rates and high stress tolerance promote bamboo invasion above and below treeline. *Plant Ecology*, **2016**, 217, 1219-1234	1.7	17
55	Rising temperature may negate the stimulatory effect of rising CO on growth and physiology of Wollemi pine (Wollemia nobilis). *Functional Plant Biology*, **2015**, 42, 836-850	2.7	14
54	Sensitivity of regional evapotranspiration partitioning to variation in woody plant cover: insights from experimental dryland tree mosaics. *Global Ecology and Biogeography*, **2015**, 24, 1040-1048	6.1	23
53	Cost-effective ecological restoration. *Restoration Ecology*, **2015**, 23, 800-810	3.1	81
52	Water and climate: Recognize anthropogenic drought. *Nature*, **2015**, 524, 409-11	50.4	210
51	The Landscape Evolution Observatory: A large-scale controllable infrastructure to study coupled Earth-surface processes. *Geomorphology*, **2015**, 244, 190-203	4.3	38
50	Transitions from grassland to savanna under drought through passive facilitation by grasses. *Journal of Vegetation Science*, **2014**, 25, 937-946	3.1	23
49	An integrated modelling framework of catchment-scale ecohydrological processes: 1. Model description and tests over an energy-limited watershed. *Ecohydrology*, **2014**, 7, 427-439	2.5	59
48	Quantifying the timescales over which exogenous and endogenous conditions affect soil respiration. *New Phytologist*, **2014**, 202, 442-454	9.8	35
47	Phenotypic selection favors missing trait combinations in coexisting annual plants. *American Naturalist*, **2013**, 182, 191-207	3.7	32
46	Antecedent Conditions Influence Soil Respiration Differences in Shrub and Grass Patches. *Ecosystems*, **2013**, 16, 1230-1247	3.9	33

45	Understanding past, contemporary, and future dynamics of plants, populations, and communities using Sonoran Desert winter annuals. *American Journal of Botany*, **2013**, 100, 1369-80	2.7	35
44	Nonstructural leaf carbohydrate dynamics of Pinus edulis during drought-induced tree mortality reveal role for carbon metabolism in mortality mechanism. *New Phytologist*, **2013**, 197, 1142-1151	9.8	161
43	Water-use efficiency and relative growth rate mediate competitive interactions in Sonoran Desert winter annual plants. *American Journal of Botany*, **2013**, 100, 2009-15	2.7	31
42	Landscape and environmental controls over leaf and ecosystem carbon dioxide fluxes under woody plant expansion. *Journal of Ecology*, **2013**, 101, 1471-1483	6	19
41	Coevolution of nonlinear trends in vegetation, soils, and topography with elevation and slope aspect: A case study in the sky islands of southern Arizona. *Journal of Geophysical Research F: Earth Surface*, **2013**, 118, 741-758	3.8	63
40	Differential daytime and night-time stomatal behavior in plants from North American deserts. *New Phytologist*, **2012**, 194, 464-476	9.8	78
39	Temperature and precipitation controls over leaf- and ecosystem-level CO2 flux along a woody plant encroachment gradient. *Global Change Biology*, **2012**, 18, 1389-1400	11.4	52
38	Shrub encroachment alters sensitivity of soil respiration to temperature and moisture. *Journal of Geophysical Research*, **2012**, 117,		24
37	Quantifying soil surface change in degraded drylands: Shrub encroachment and effects of fire and vegetation removal in a desert grassland. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		32
36	Ecohydrological consequences of drought- and infestation- triggered tree die-off: insights and hypotheses. *Ecohydrology*, **2012**, 5, 145-159	2.5	171
35	Nocturnal stomatal conductance responses to rising [CO2], temperature and drought. *New Phytologist*, **2012**, 193, 929-938	9.8	80
34	Within-plant isoprene oxidation confirmed by direct emissions of oxidation products methyl vinyl ketone and methacrolein. *Global Change Biology*, **2012**, 18, 973-984	11.4	87
33	The relative controls of temperature, soil moisture, and plant functional group on soil CO2 efflux at diel, seasonal, and annual scales. *Journal of Geophysical Research*, **2011**, 116,		84
32	The temperature responses of soil respiration in deserts: a seven desert synthesis. *Biogeochemistry*, **2011**, 103, 71-90	3.8	84
31	An open system framework for integrating critical zone structure and function. *Biogeochemistry*, **2011**, 102, 15-29	3.8	81
30	How Water, Carbon, and Energy Drive Critical Zone Evolution: The Jemez–Santa Catalina Critical Zone Observatory. *Vadose Zone Journal*, **2011**, 10, 884-899	2.7	96
29	Contemporary climate change in the Sonoran Desert favors cold-adapted species. *Global Change Biology*, **2010**, 16, 1555-1565	11.4	109
28	Phenotypic plasticity and precipitation response in Sonoran Desert winter annuals. *American Journal of Botany*, **2010**, 97, 405-11	2.7	33

27	Hysteresis of soil moisture spatial heterogeneity and the "homogenizing" effect of vegetation. *Water Resources Research*, **2010**, 46,	5.4	115
26	Partitioning evapotranspiration across gradients of woody plant cover: Assessment of a stable isotope technique. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	139
25	Land surface modeling inside the Biosphere 2 tropical rain forest biome. *Journal of Geophysical Research*, **2010**, 115,		13
24	Temperature sensitivity of drought-induced tree mortality portends increased regional die-off under global-change-type drought. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 7063-6	11.5	719
23	Climate and vegetation water use efficiency at catchment scales. *Hydrological Processes*, **2009**, 23, 2409-2414	3.3	154
22	Woody plant encroachment impacts on soil carbon and microbial processes: results from a hierarchical Bayesian analysis of soil incubation data. *Plant and Soil*, **2009**, 320, 153-167	4.2	36
21	Can biological invasions induce desertification?. *New Phytologist*, **2009**, 181, 512-5	9.8	33
20	Interactions Between Biogeochemistry and Hydrologic Systems. *Annual Review of Environment and Resources*, **2009**, 34, 65-96	17.2	117
19	Effects of seasonal drought on net carbon dioxide exchange from a woody-plant-encroached semiarid grassland. *Journal of Geophysical Research*, **2009**, 114,		162
18	Functional tradeoffs determine species coexistence via the storage effect. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 11641-5	11.5	298
17	Land degradation in the Thar Desert. *Frontiers in Ecology and the Environment*, **2009**, 7, 517-518	5.5	10
16	Photosynthetic resource-use efficiency and demographic variability in desert winter annual plants. *Ecology*, **2008**, 89, 1554-63	4.6	62
15	Soil Texture Drives Responses of Soil Respiration to Precipitation Pulses in the Sonoran Desert: Implications for Climate Change. *Ecosystems*, **2008**, 11, 961-979	3.9	162
14	Adaptive differences in plant physiology and ecosystem paradoxes: insights from metabolic scaling theory. *Global Change Biology*, **2007**, 13, 591-609	11.4	62
13	Partitioning of evapotranspiration and its relation to carbon dioxide exchange in a Chihuahuan Desert shrubland. *Hydrological Processes*, **2006**, 20, 3227-3243	3.3	161
12	Resilience and resistance of ecosystem functional response to a precipitation pulse in a semi-arid grassland. *Journal of Ecology*, **2006**, 94, 23-30	6	92
11	Ecohydrological impacts of woody-plant encroachment: seasonal patterns of water and carbon dioxide exchange within a semiarid riparian environment. *Global Change Biology*, **2006**, 12, 311-324	11.4	179
10	Increases in Desert Shrub Productivity under Elevated Carbon Dioxide Vary with Water Availability. *Ecosystems*, **2006**, 9, 374-385	3.9	57

9	ECOHYDROLOGICAL IMPLICATIONS OF WOODY PLANT ENCROACHMENT. *Ecology*, **2005**, 86, 308-319	4.6	500
8	CO2 ENRICHMENT REDUCES THE ENERGETIC COST OF BIOMASS CONSTRUCTION IN AN INVASIVE DESERT GRASS. *Ecology*, **2004**, 85, 100-106	4.6	46
7	In situ photosynthetic freezing tolerance for plants exposed to a global warming manipulation in the Rocky Mountains, Colorado, USA. *New Phytologist*, **2004**, 162, 331-341	9.8	53
6	Convergence across biomes to a common rain-use efficiency. *Nature*, **2004**, 429, 651-4	50.4	786
5	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. *Oecologia*, **2004**, 141, 295-305	2.9	201
4	Precipitation pulses and carbon fluxes in semiarid and arid ecosystems. *Oecologia*, **2004**, 141, 254-68	2.9	815
3	Photosynthetic responses of Mojave Desert shrubs to free air CO2 enrichment are greatest during wet years. *Global Change Biology*, **2003**, 9, 276-285	11.4	64
2	Functional ecology of shrub seedlings after a natural recruitment event at the Nevada Desert FACE Facility. *Global Change Biology*, **2003**, 9, 718-728	11.4	16
1	Elevated CO2 increases productivity and invasive species success in an arid ecosystem. *Nature*, **2000**, 408, 79-82	50.4	465