

William T Pockman

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/3969043/william-t-pockman-publications-by-year.pdf>

Version: 2024-04-19

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

92
papers

14,853
citations

50
h-index

94
g-index

94
ext. papers

16,740
ext. citations

7.4
avg, IF

6.12
L-index

#	Paper	IF	Citations
92	State changes: insights from the U.S. Long Term Ecological Research Network. <i>Ecosphere</i> , 2021 , 12, e03433	3.3	1
91	Global transpiration data from sap flow measurements: the SAPFLUXNET database. <i>Earth System Science Data</i> , 2021 , 13, 2607-2649	10.5	13
90	Divergent responses of primary production to increasing precipitation variability in global drylands. <i>Global Change Biology</i> , 2021 , 27, 5225-5237	11.4	3
89	Ecosystem-Level Energy and Water Budgets Are Resilient to Canopy Mortality in Sparse Semiarid Biomes. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2020 , 125, e2020JG005858	3.7	1
88	Sensitivity of dryland plant allometry to climate. <i>Functional Ecology</i> , 2019 , 33, 2290-2303	5.6	13
87	Minimal mortality and rapid recovery of the dominant shrub <i>Larrea tridentata</i> following an extreme cold event in the northern Chihuahuan Desert. <i>Journal of Vegetation Science</i> , 2019 , 30, 963-972	3.1	5
86	Experimental drought reduces genetic diversity in the grassland foundation species <i>Bouteloua eriopoda</i> . <i>Oecologia</i> , 2019 , 189, 1107-1120	2.9	10
85	Mechanisms of a coniferous woodland persistence under drought and heat. <i>Environmental Research Letters</i> , 2019 , 14, 045014	6.2	42
84	A heuristic classification of woody plants based on contrasting shade and drought strategies. <i>Tree Physiology</i> , 2019 , 39, 767-781	4.2	5
83	Early exposure to UV radiation overshadowed by precipitation and litter quality as drivers of decomposition in the northern Chihuahuan Desert. <i>PLoS ONE</i> , 2019 , 14, e0210470	3.7	5
82	Drought consistently alters the composition of soil fungal and bacterial communities in grasslands from two continents. <i>Global Change Biology</i> , 2018 , 24, 2818-2827	11.4	114
81	Interannual variations in needle and sapwood traits of branches under an experimental drought. <i>Ecology and Evolution</i> , 2018 , 8, 1655-1672	2.8	8
80	Is desiccation tolerance and avoidance reflected in xylem and phloem anatomy of two coexisting arid-zone coniferous trees?. <i>Plant, Cell and Environment</i> , 2018 , 41, 1551-1564	8.4	11
79	Manipulative experiments demonstrate how long-term soil moisture changes alter controls of plant water use. <i>Environmental and Experimental Botany</i> , 2018 , 152, 19-27	5.9	30
78	Transport in a coordinated soil-root-xylem-phloem leaf system. <i>Advances in Water Resources</i> , 2018 , 119, 1-16	4.7	17
77	Impacts of long-term precipitation manipulation on hydraulic architecture and xylem anatomy of piñon and juniper in Southwest USA. <i>Plant, Cell and Environment</i> , 2018 , 41, 421-435	8.4	12
76	Tree water dynamics in a drying and warming world. <i>Plant, Cell and Environment</i> , 2017 , 40, 1861-1873	8.4	48

75	Asymmetric responses of primary productivity to precipitation extremes: A synthesis of grassland precipitation manipulation experiments. <i>Global Change Biology</i> , 2017 , 23, 4376-4385	11.4	139
74	Tree Mortality Decreases Water Availability and Ecosystem Resilience to Drought in Piñon-Juniper Woodlands in the Southwestern U.S.. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017 , 122, 3343-3361	3.7	21
73	Interacting Effects of Leaf Water Potential and Biomass on Vegetation Optical Depth. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2017 , 122, 3031-3046	3.7	59
72	Press-pulse interactions: effects of warming, N deposition, altered winter precipitation, and fire on desert grassland community structure and dynamics. <i>Global Change Biology</i> , 2017 , 23, 1095-1108	11.4	31
71	A multi-species synthesis of physiological mechanisms in drought-induced tree mortality. <i>Nature Ecology and Evolution</i> , 2017 , 1, 1285-1291	12.3	469
70	Multi-scale predictions of massive conifer mortality due to chronic temperature rise. <i>Nature Climate Change</i> , 2016 , 6, 295-300	21.4	226
69	Pragmatic hydraulic theory predicts stomatal responses to climatic water deficits. <i>New Phytologist</i> , 2016 , 212, 577-589	9.8	107
68	Too dry for lizards: short-term rainfall influence on lizard microhabitat use in an experimental rainfall manipulation within a piñon-juniper. <i>Functional Ecology</i> , 2016 , 30, 964-973	5.6	27
67	An allometry-based model of the survival strategies of hydraulic failure and carbon starvation. <i>Ecohydrology</i> , 2016 , 9, 529-546	2.5	29
66	Convergence in resource use efficiency across trees with differing hydraulic strategies in response to ecosystem precipitation manipulation. <i>Functional Ecology</i> , 2015 , 29, 1125-1136	5.6	21
65	Photoprotective response to chilling differs among high and low latitude <i>Larrea divaricata</i> grown in a common garden. <i>Journal of Arid Environments</i> , 2015 , 120, 51-54	2.5	7
64	Carbohydrate dynamics and mortality in a piñon-juniper woodland under three future precipitation scenarios. <i>Plant, Cell and Environment</i> , 2015 , 38, 729-39	8.4	73
63	Prolonged experimental drought reduces plant hydraulic conductance and transpiration and increases mortality in a piñon-juniper woodland. <i>Ecology and Evolution</i> , 2015 , 5, 1618-38	2.8	48
62	Interdependence of chronic hydraulic dysfunction and canopy processes can improve integrated models of tree response to drought. <i>Water Resources Research</i> , 2015 , 51, 6156-6176	5.4	70
61	Winter climate change promotes an altered spring growing season in piñon pine-juniper woodlands. <i>Agricultural and Forest Meteorology</i> , 2015 , 214-215, 357-368	5.8	10
60	Integrating ecophysiology and forest landscape models to improve projections of drought effects under climate change. <i>Global Change Biology</i> , 2015 , 21, 843-56	11.4	32
59	The impact of precipitation change on nitrogen cycling in a semi-arid ecosystem. <i>Functional Ecology</i> , 2014 , 28, 1534-1544	5.6	51
58	How do trees die? A test of the hydraulic failure and carbon starvation hypotheses. <i>Plant, Cell and Environment</i> , 2014 , 37, 153-61	8.4	487

57	Freezing regime and trade-offs with water transport efficiency generate variation in xylem structure across diploid populations of <i>Larrea</i> sp. (Zygophyllaceae). <i>American Journal of Botany</i> , 2014 , 101, 598-607	2.7	17
56	A Multiscale, Hierarchical Model of Pulse Dynamics in Arid-Land Ecosystems. <i>Annual Review of Ecology, Evolution, and Systematics</i> , 2014 , 45, 397-419	13.5	113
55	Effects of monsoon precipitation variability on the physiological response of two dominant C ₄ grasses across a semiarid ecotone. <i>Oecologia</i> , 2014 , 176, 751-62	2.9	16
54	Differential effects of extreme drought on production and respiration: synthesis and modeling analysis. <i>Biogeosciences</i> , 2014 , 11, 621-633	4.6	73
53	Effects of experimental rainfall manipulations on Chihuahuan Desert grassland and shrubland plant communities. <i>Oecologia</i> , 2013 , 172, 1117-27	2.9	94
52	Reduced transpiration response to precipitation pulses precedes mortality in a piñon-juniper woodland subject to prolonged drought. <i>New Phytologist</i> , 2013 , 200, 375-387	9.8	62
51	Evaluating theories of drought-induced vegetation mortality using a multimodel-experiment framework. <i>New Phytologist</i> , 2013 , 200, 304-321	9.8	287
50	Regulation and acclimation of leaf gas exchange in a piñon-juniper woodland exposed to three different precipitation regimes. <i>Plant, Cell and Environment</i> , 2013 , 36, 1812-25	8.4	72
49	Drought predisposes piñon-juniper woodlands to insect attacks and mortality. <i>New Phytologist</i> , 2013 , 198, 567-578	9.8	204
48	Hydrologic control of the oxygen isotope ratio of ecosystem respiration in a semi-arid woodland. <i>Biogeosciences</i> , 2013 , 10, 4937-4956	4.6	5
47	Spatio-temporal decoupling of stomatal and mesophyll conductance induced by vein cutting in leaves of <i>Helianthus annuus</i> . <i>Frontiers in Plant Science</i> , 2013 , 4, 365	6.2	7
46	Hydraulic limits preceding mortality in a piñon-juniper woodland under experimental drought. <i>Plant, Cell and Environment</i> , 2012 , 35, 1601-17	8.4	136
45	Variation in seedling freezing response is associated with climate in <i>Larrea</i> . <i>Oecologia</i> , 2012 , 169, 73-84	2.9	8
44	Response of the soil microbial community to changes in precipitation in a semiarid ecosystem. <i>Applied and Environmental Microbiology</i> , 2012 , 78, 8587-94	4.8	135
43	Methodology and performance of a rainfall manipulation experiment in a piñon-juniper woodland. <i>Ecosphere</i> , 2012 , 3, art28	3.1	42
42	Drought increases freezing tolerance of both leaves and xylem of <i>Larrea tridentata</i> . <i>Plant, Cell and Environment</i> , 2011 , 34, 43-51	8.4	39
41	The role of interannual, seasonal, and synoptic climate on the carbon isotope ratio of ecosystem respiration at a semiarid woodland. <i>Global Change Biology</i> , 2011 , 17, 2584-2600	11.4	10
40	Positive feedback between microclimate and shrub encroachment in the northern Chihuahuan desert. <i>Ecosphere</i> , 2010 , 1, 1-11	3.1	255

39	Rapid plant community responses during the summer monsoon to nighttime warming in a northern Chihuahuan Desert grassland. <i>Journal of Arid Environments</i> , 2010 , 74, 611-617	2.5	29
38	Carbon gain and hydraulic limits on water use differ between size classes of <i>Larrea tridentata</i> . <i>Journal of Arid Environments</i> , 2010 , 74, 1121-1129	2.5	9
37	The Influence of Spatial Patterns of Soil Moisture on the Grass and Shrub Responses to a Summer Rainstorm in a Chihuahuan Desert Ecotone. <i>Ecosystems</i> , 2010 , 13, 511-525	3.9	56
36	Tree die-off in response to global change-type drought: mortality insights from a decade of plant water potential measurements. <i>Frontiers in Ecology and the Environment</i> , 2009 , 7, 185-189	5.5	371
35	Allometry, growth and population regulation of the desert shrub <i>Larrea tridentata</i> . <i>Functional Ecology</i> , 2008 , 22, 197-204	5.6	35
34	Mechanisms of plant survival and mortality during drought: why do some plants survive while others succumb to drought?. <i>New Phytologist</i> , 2008 , 178, 719-739	9.8	2499
33	Leaf Anatomy of Orcuttieae (Poaceae: Chloridoideae): More Evidence of C4Photosynthesis without Kranz Anatomy. <i>Madroño</i> , 2008 , 55, 143-150	0.4	3
32	Transpiration and stomatal conductance across a steep climate gradient in the southern Rocky Mountains. <i>Ecohydrology</i> , 2008 , 1, 193-204	2.5	57
31	Aquaporin-mediated changes in hydraulic conductivity of deep tree roots accessed via caves. <i>Plant, Cell and Environment</i> , 2007 , 30, 1411-21	8.4	74
30	Influence of soil texture on hydraulic properties and water relations of a dominant warm-desert phreatophyte. <i>Tree Physiology</i> , 2006 , 26, 313-23	4.2	61
29	Integrating Patch and Boundary Dynamics to Understand and Predict Biotic Transitions at Multiple Scales. <i>Landscape Ecology</i> , 2006 , 21, 19-33	4.3	72
28	ECOHYDROLOGICAL IMPLICATIONS OF WOODY PLANT ENCROACHMENT. <i>Ecology</i> , 2005 , 86, 308-319	4.6	500
27	Water storage capacitance and xylem tension in isolated branches of temperate and tropical trees. <i>Tree Physiology</i> , 2005 , 25, 457-66	4.2	94
26	ECOHYDROLOGICAL CONTROL OF DEEP DRAINAGE IN ARID AND SEMIARID REGIONS. <i>Ecology</i> , 2005 , 86, 277-287	4.6	136
25	Variation in xylem structure and function in stems and roots of trees to 20m depth. <i>New Phytologist</i> , 2004 , 163, 507-517	9.8	199
24	The Cohesion-Tension Theory. <i>New Phytologist</i> , 2004 , 163, 451-452	9.8	54
23	Convergence across biomes to a common rain-use efficiency. <i>Nature</i> , 2004 , 429, 651-4	50.4	786
22	Precipitation pulses and carbon fluxes in semiarid and arid ecosystems. <i>Oecologia</i> , 2004 , 141, 254-68	2.9	815

21	Nutrient uptake as a contributing explanation for deep rooting in arid and semi-arid ecosystems. <i>Oecologia</i> , 2004 , 141, 620-8	2.9	128
20	ADAPTIVE VARIATION IN THE VULNERABILITY OF WOODY PLANTS TO XYLEM CAVITATION. <i>Ecology</i> , 2004 , 85, 2184-2199	4.6	484
19	Assessing the Response of Terrestrial Ecosystems to Potential Changes in Precipitation. <i>BioScience</i> , 2003 , 53, 941	5.7	591
18	Ecosystem carbon loss with woody plant invasion of grasslands. <i>Nature</i> , 2002 , 418, 623-6	50.4	755
17	The vulnerability to freezing-induced xylem cavitation of <i>Larrea tridentata</i> (Zygophyllaceae) in the Chihuahuan desert. <i>American Journal of Botany</i> , 2002 , 89, 1916-24	2.7	43
16	Heavy and light beer: a carbon isotope approach to detect C(4) carbon in beers of different origins, styles, and prices. <i>Journal of Agricultural and Food Chemistry</i> , 2002 , 50, 6413-8	5.7	58
15	Trends in wood density and structure are linked to prevention of xylem implosion by negative pressure. <i>Oecologia</i> , 2001 , 126, 457-461	2.9	1050
14	Vulnerability to xylem cavitation and the distribution of Sonoran Desert vegetation. <i>American Journal of Botany</i> , 2000 , 87, 1287-1299	2.7	442
13	Measuring Water Availability and Uptake in Ecosystem Studies 2000 , 199-214		14
12	Vulnerability to xylem cavitation and the distribution of Sonoran Desert vegetation. <i>American Journal of Botany</i> , 2000 , 87, 1287-99	2.7	69
11	Ecosystem rooting depth determined with caves and DNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999 , 96, 11387-92	11.5	211
10	Use of centrifugal force in the study of xylem cavitation. <i>Journal of Experimental Botany</i> , 1997 , 48, 665-674		237
9	Freezing-induced xylem cavitation and the northern limit of <i>Larrea tridentata</i> . <i>Oecologia</i> , 1996 , 109, 19-27	9	126
8	Root and stem xylem embolism, stomatal conductance, and leaf turgor in <i>Acer grandidentatum</i> populations along a soil moisture gradient. <i>Oecologia</i> , 1996 , 105, 293-301	2.9	223
7	New evidence for large negative xylem pressures and their measurement by the pressure chamber method. <i>Plant, Cell and Environment</i> , 1996 , 19, 427-436	8.4	106
6	Sustained and significant negative water pressure in xylem. <i>Nature</i> , 1995 , 378, 715-716	50.4	257
5	Interactions between C3 and C4 salt marsh plant species during four years of exposure to elevated atmospheric CO2. <i>Plant Ecology</i> , 1993 , 104-105, 133-143		88
4	Limitation of transpiration by hydraulic conductance and xylem cavitation in <i>Betula occidentalis</i> . <i>Plant, Cell and Environment</i> , 1993 , 16, 279-287	8.4	261

- | | | |
|---|---|---|
| 3 | Interactions between C3 and C4 salt marsh plant species during four years of exposure to elevated atmospheric CO2 1993 , 133-143 | 3 |
| 2 | Hydrologic control of the oxygen isotope ratio of ecosystem respiration in a semi-arid woodland | 1 |
| 1 | Differential effects of extreme drought on production and respiration: synthesis and modeling analysis | 3 |