

James F Reynolds

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.

85
papers

8,214
citations

38
h-index

85
g-index

85
ext. papers

8,983
ext. citations

5.2
avg, IF

5.72
L-index

#	Paper	IF	Citations
85	Global desertification: building a science for dryland development. <i>Science</i> , 2007 , 316, 847-51	33.3	1643
84	Impacts of shrub encroachment on ecosystem structure and functioning: towards a global synthesis. <i>Ecology Letters</i> , 2011 , 14, 709-22	10	654
83	Thermal adaptation of soil microbial respiration to elevated temperature. <i>Ecology Letters</i> , 2008 , 11, 1316-27	10	548
82	Is the change of plant-plant interactions with abiotic stress predictable? A meta-analysis of field results in arid environments. <i>Journal of Ecology</i> , 2005 , 93, 748-757	6	545
81	Modifying the pulse-reserve paradigm for deserts of North America: precipitation pulses, soil water, and plant responses. <i>Oecologia</i> , 2004 , 141, 194-210	2.9	520
80	IMPACT OF DROUGHT ON DESERT SHRUBS: EFFECTS OF SEASONALITY AND DEGREE OF RESOURCE ISLAND DEVELOPMENT. <i>Ecological Monographs</i> , 1999 , 69, 69-106	9	348
79	Plant responses to precipitation in desert ecosystems: integrating functional types, pulses, thresholds, and delays. <i>Oecologia</i> , 2004 , 141, 282-94	2.9	338
78	A new contagion index to quantify spatial patterns of landscapes. <i>Landscape Ecology</i> , 1993 , 8, 155-162	4.3	300
77	A Simulation Experiment to Quantify Spatial Heterogeneity in Categorical Maps. <i>Ecology</i> , 1994 , 75, 2446-4.6	4.6	185
76	Effects of long-term rainfall variability on evapotranspiration and soil water distribution in the Chihuahuan Desert: A modeling analysis. <i>Plant Ecology</i> , 2000 , 150, 145-159	1.7	165
75	The stress-gradient hypothesis does not fit all relationships between plant-plant interactions and abiotic stress: further insights from arid environments. <i>Journal of Ecology</i> , 2006 , 94, 17-22	6	161
74	Coordination theory of leaf nitrogen distribution in a canopy. <i>Oecologia</i> , 1993 , 93, 63-69	2.9	157
73	The Effect of Neighbors on Root Distribution in a Creosotebush (<i>Larrea Tridentata</i>) Population. <i>Ecology</i> , 1994 , 75, 1693-1702	4.6	131
72	VALIDITY OF EXTRAPOLATING FIELD CO ₂ EXPERIMENTS TO PREDICT CARBON SEQUESTRATION IN NATURAL ECOSYSTEMS. <i>Ecology</i> , 1999 , 80, 1568-1583	4.6	128
71	Allometric relations and growth in <i>Pinus taeda</i> : the effect of elevated CO ₂ , and changing N availability. <i>New Phytologist</i> , 1996 , 134, 85-93	9.8	100
70	Effects of elevated CO ₂ and nitrogen fertilization pretreatments on decomposition on tallgrass prairie leaf litter. <i>Plant and Soil</i> , 1994 , 165, 115-127	4.2	87
69	Size-biomass Relationships of Several Chihuahuan Desert Shrubs. <i>American Midland Naturalist</i> , 1975 , 94, 451	0.7	83

68	A comparative modeling study of soil water dynamics in a desert ecosystem. <i>Water Resources Research</i> , 1997 , 33, 73-90	5.4	80
67	RECONSTRUCTING PLANT ROOT AREA AND WATER UPTAKE PROFILES. <i>Ecology</i> , 2004 , 85, 1967-1978	4.6	74
66	A general model of litter decomposition in the northern Chihuahuan Desert. <i>Ecological Modelling</i> , 1991 , 56, 197-219	3	74
65	Amount or pattern? Grassland responses to the heterogeneity and availability of two key resources. <i>Ecology</i> , 2007 , 88, 501-11	4.6	73
64	Modularity and genericness in plant and ecosystem models. <i>Ecological Modelling</i> , 1997 , 94, 7-16	3	71
63	Predicting the response of plants to increasing carbon dioxide: A critique of plant growth models. <i>Ecological Modelling</i> , 1985 , 29, 107-129	3	70
62	Responses of dryland soil respiration and soil carbon pool size to abrupt vs. gradual and individual vs. combined changes in soil temperature, precipitation, and atmospheric [CO ₂]: a simulation analysis. <i>Global Change Biology</i> , 2009 , 15, 2274-2294	11.4	68
61	Historical shrub-grass transitions in the northern Chihuahuan Desert: modeling the effects of shifting rainfall seasonality and event size over a landscape gradient. <i>Global Change Biology</i> , 2003 , 9, 1475-1493	11.4	65
60	The effect of elevated CO and N availability on tissue concentrations and whole plant pools of carbon-based secondary compounds in loblolly pine (<i>Pinus taeda</i>). <i>Oecologia</i> , 1997 , 113, 29-36	2.9	64
59	The Influence of Carbon Dioxide and Daily Photon-flux Density on Optimal Leaf Nitrogen Concentration and Root: Shoot Ratio. <i>Annals of Botany</i> , 1991 , 68, 365-376	4.1	64
58	Mechanisms of surface litter mass loss in the northern Chihuahuan desert: a reinterpretation. <i>Journal of Arid Environments</i> , 1989 , 16, 157-163	2.5	59
57	A MODEL OF NITROGEN UPTAKE BY ERIOPHORUM VAGINATUM ROOTS IN THE FIELD: ECOLOGICAL IMPLICATIONS. <i>Ecological Monographs</i> , 1997 , 67, 1-22	9	53
56	Modelling whole-plant allocation in relation to carbon and nitrogen supply: Coordination versus optimization: Opinion. <i>Plant and Soil</i> , 1996 , 185, 65-74	4.2	52
55	A model of arctic tundra vegetation derived from topographic gradients. <i>Landscape Ecology</i> , 1998 , 13, 187-201	4.3	51
54	Changes in root NH ₄ ⁺ and NO ₃ ⁻ absorption rates of loblolly and ponderosa pine in response to CO ₂ enrichment. <i>Plant and Soil</i> , 1997 , 190, 1-9	4.2	50
53	Decomposition processes: modelling approaches and applications. <i>Science of the Total Environment</i> , 1996 , 183, 137-149	10.2	50
52	Desertification 2001 , 61-78		48
51	Nonlinear root-derived carbon sequestration across a gradient of nitrogen and phosphorous deposition in experimental mesocosms. <i>Global Change Biology</i> , 2008 , 14, 1113-1124	11.4	45

50	A Model Allocating Growth Among Leaf Proteins, Shoot Structure, and Root Biomass to Produce Balanced Activity. <i>Annals of Botany</i> , 1991 , 68, 417-425	4.1	45
49	Soil nutrient heterogeneity interacts with elevated CO ₂ and nutrient availability to determine species and assemblage responses in a model grassland community. <i>New Phytologist</i> , 2005 , 168, 637-50	9.8	44
48	Modeling the effects of elevated CO ₂ on plants: extrapolating leaf response to a canopy. <i>Agricultural and Forest Meteorology</i> , 1992 , 61, 69-94	5.8	43
47	Ecohydrological feedbacks and linkages associated with land degradation: a case study from Mexico. <i>Hydrological Processes</i> , 2006 , 20, 3395-3411	3.3	38
46	Spatial heterogeneity in soil nutrient supply modulates nutrient and biomass responses to multiple global change drivers in model grassland communities. <i>Global Change Biology</i> , 2006 , 12, 2431-2441	11.4	38
45	Effects of plant size on photosynthesis and water relations in the desert shrub <i>Prosopis glandulosa</i> (Fabaceae). <i>American Journal of Botany</i> , 1996 , 83, 99-105	2.7	37
44	Do morphological changes mediate plant responses to water stress? A steady-state experiment with two C grasses. <i>New Phytologist</i> , 2002 , 155, 79-88	9.8	36
43	Soil heterogeneity and community composition jointly influence grassland biomass. <i>Journal of Vegetation Science</i> , 2006 , 17, 261-270	3.1	35
42	Effects of Climate Change on Decomposition in Arctic Tussock Tundra: A Modeling Synthesis. <i>Arctic and Alpine Research</i> , 1993 , 25, 403		33
41	Biomass responses to elevated CO ₂ , soil heterogeneity and diversity: an experimental assessment with grassland assemblages. <i>Oecologia</i> , 2007 , 151, 512-20	2.9	32
40	Relationships between a terrain-based hydrologic model and patch-scale vegetation patterns in an arctic tundra landscape. <i>Landscape Ecology</i> , 1993 , 8, 229-237	4.3	32
39	Simulating the dynamics of primary productivity of a Sonoran ecosystem: Model parameterization and validation. <i>Ecological Modelling</i> , 2005 , 189, 1-24	3	31
38	Soil aeration in relation to soil physical properties, nitrogen availability, and root characteristics within an arctic watershed. <i>Plant and Soil</i> , 1996 , 178, 37-48	4.2	31
37	The contribution of abiotic processes to buried litter decomposition in the northern Chihuahuan desert. <i>Oecologia</i> , 1989 , 79, 133-135	2.9	29
36	Small-scale spatial heterogeneity in the vertical distribution of soil nutrients has limited effects on the growth and development of <i>Prosopis glandulosa</i> seedlings. <i>Plant Ecology</i> , 2006 , 183, 65-75	1.7	27
35	Growth and allocation of the arctic sedges <i>Eriophorum angustifolium</i> and <i>E. vaginatum</i> : effects of variable soil oxygen and nutrient availability. <i>Oecologia</i> , 1995 , 104, 330-339	2.9	27
34	How Much Physiology is Needed in Forest Gap Models for Simulating Long-Term Vegetation Response to Global Change? Challenges, Limitations, and Potentials. <i>Climatic Change</i> , 2001 , 51, 541-557	4.5	26
33	A novel approach to assess livestock management effects on biodiversity of drylands. <i>Ecological Indicators</i> , 2015 , 50, 69-78	5.8	24

32	Estimation of leaf area of soybeans grown under elevated carbon dioxide levels. <i>Field Crops Research</i> , 1986 , 13, 193-203	5.5	24
31	Effects of plant size on photosynthesis and water relations in the desert shrub <i>Prosopis glandulosa</i> (Fabaceae) 1996 , 83, 99		24
30	EFFECTS OF COMPENSATORY GROWTH ON POPULATION PROCESSES: A SIMULATION STUDY. <i>Ecology</i> , 1997 , 78, 2378-2384	4.6	23
29	GePSi: A generic plant simulator based on object-oriented principles. <i>Ecological Modelling</i> , 1997 , 94, 53-66		23
28	Nutrient availability and atmospheric CO ₂ partial pressure modulate the effects of nutrient heterogeneity on the size structure of populations in grassland species. <i>Annals of Botany</i> , 2006 , 98, 227-351	4.1	22
27	A SIMPLE MODEL FOR PREDICTING SOIL TEMPERATURES IN DESERT ECOSYSTEMS ¹ . <i>Soil Science</i> , 1992 , 153, 280-287	0.9	20
26	Long-Term Response of an Arctic Sedge to Climate Change: A Simulation Study 1992 , 2, 323-340		20
25	Decreased mass specific respiration under experimental warming is robust to the microbial biomass method employed. <i>Ecology Letters</i> , 2009 , 12, E15-E18	10	18
24	Contingency in ecosystem but not plant community response to multiple global change factors. <i>New Phytologist</i> , 2012 , 196, 462-471	9.8	16
23	Introduction: modularity in plant models. <i>Ecological Modelling</i> , 1997 , 94, 1-6	3	16
22	Individual vs. population plastic responses to elevated CO ₂ , nutrient availability, and heterogeneity: a microcosm experiment with co-occurring species. <i>Plant and Soil</i> , 2007 , 296, 53-64	4.2	16
21	Diurnal patterns of CO ₂ and H ₂ O exchange of the Arctic sedges <i>Eriophorum angustifolium</i> and <i>E. vaginatum</i> (Cyperaceae). <i>American Journal of Botany</i> , 1998 , 85, 592-599	2.7	16
20	Modeling the Response of Arctic Plants to Changing Climate 1992 , 413-438		15
19	Progress, Limitations, and Challenges in Modeling the Effects of Elevated CO ₂ on Plants and Ecosystems 1996 , 347-380		14
18	Hydrological and ecological responses of ecosystems to extreme precipitation regimes: A test of empirical-based hypotheses with an ecosystem model. <i>Perspectives in Plant Ecology, Evolution and Systematics</i> , 2016 , 22, 36-46	3	14
17	Validation of a primary production model of the desert shrub <i>Larrea tridentata</i> using soil-moisture augmentation experiments. <i>Oecologia</i> , 1981 , 51, 357-363	2.9	13
16	Scaling Ecophysiology from the Plant to the Ecosystem: A Conceptual Framework 1993 , 127-140		13
15	Extracellular Acid Phosphatase Activities in <i>Eriophorum vaginatum</i> Tussocks: A Modeling Synthesis. <i>Arctic and Alpine Research</i> , 1993 , 25, 50		11

14	PATTERNS OF STRATIFIED SOIL WATER LOSS IN A CHIHUAHUAN DESERT COMMUNITY. <i>Soil Science</i> , 1989 , 148, 244-249	0.9	11
13	THE RATIONALE FOR ADOPTING A MODULAR GENERIC STRUCTURE FOR CROP SIMULATORS. <i>Acta Horticulturae</i> , 1989 , 391-400	0.3	10
12	Earthworms modify plant biomass and nitrogen capture under conditions of soil nutrient heterogeneity and elevated atmospheric CO ₂ concentrations. <i>Soil Biology and Biochemistry</i> , 2014 , 78, 182-188	7.5	9
11	Changing human-ecological relationships and drivers using the Quesungual agroforestry system in western Honduras. <i>Renewable Agriculture and Food Systems</i> , 2010 , 25, 219-227	1.8	9
10	Changes in evapotranspiration and phenology as consequences of shrub removal in dry forests of central Argentina. <i>Ecohydrology</i> , 2015 , 8, 1304-1311	2.5	8
9	EFFECTS OF ELEVATED CARBON DIOXIDE ON ESTIMATION OF LEAF AREA AND LEAF DRY WEIGHT OF SOYBEAN. <i>American Journal of Botany</i> , 1988 , 75, 1771-1774	2.7	8
8	Growth, nitrogen uptake, and metabolism in two semiarid shrubs grown at ambient and elevated atmospheric CO ₂ concentrations: effects of nitrogen supply and source. <i>American Journal of Botany</i> , 2004 , 91, 565-72	2.7	7
7	Desertification 2013 , 479-494		6
6	Soil heterogeneity and community composition jointly influence grassland biomass 2006 , 17, 261		5
5	UNDERSTANDING GLOBAL DESERTIFICATION: BIOPHYSICAL AND SOCIOECONOMIC DIMENSIONS OF HYDROLOGY 2006 , 315-332		5
4	SCALING TERRESTRIAL BIOGEOCHEMICAL PROCESSES CONTRASTING INTACT AND MODEL EXPERIMENTAL SYSTEMS 2006 , 109-130		3
3	A Modular Structure for Plant Growth Simulation Models 1989 , 123-134		2
2	Gas exchange and carbon metabolism in two <i>Prosopis</i> species (Fabaceae) from semiarid habitats: effects of elevated CO ₂ , N supply, and N source. <i>American Journal of Botany</i> , 2006 , 93, 716-23	2.7	1
1	Effects of elevated CO ₂ and nitrogen fertilization pretreatments on decomposition on tallgrass prairie leaf litter 1994 , 115-127		