

# James F Reynolds

## List of Publications by Year in Descending Order

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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	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> , <b>2016</b> , 22, 36-46	3	14
84	Changes in evapotranspiration and phenology as consequences of shrub removal in dry forests of central Argentina. <i>Ecohydrology</i> , <b>2015</b> , 8, 1304-1311	2.5	8
83	A novel approach to assess livestock management effects on biodiversity of drylands. <i>Ecological Indicators</i> , <b>2015</b> , 50, 69-78	5.8	24
82	Earthworms modify plant biomass and nitrogen capture under conditions of soil nutrient heterogeneity and elevated atmospheric CO <sub>2</sub> concentrations. <i>Soil Biology and Biochemistry</i> , <b>2014</b> , 78, 182-188	7.5	9
81	Desertification <b>2013</b> , 479-494		6
80	Contingency in ecosystem but not plant community response to multiple global change factors. <i>New Phytologist</i> , <b>2012</b> , 196, 462-471	9.8	16
79	Impacts of shrub encroachment on ecosystem structure and functioning: towards a global synthesis. <i>Ecology Letters</i> , <b>2011</b> , 14, 709-22	10	654
78	Changing human-ecological relationships and drivers using the Quesungual agroforestry system in western Honduras. <i>Renewable Agriculture and Food Systems</i> , <b>2010</b> , 25, 219-227	1.8	9
77	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 <sub>2</sub> ]: a simulation analysis. <i>Global Change Biology</i> , <b>2009</b> , 15, 2274-2294	11.4	68
76	Decreased mass specific respiration under experimental warming is robust to the microbial biomass method employed. <i>Ecology Letters</i> , <b>2009</b> , 12, E15-E18	10	18
75	Thermal adaptation of soil microbial respiration to elevated temperature. <i>Ecology Letters</i> , <b>2008</b> , 11, 1316-27	11.4	548
74	Nonlinear root-derived carbon sequestration across a gradient of nitrogen and phosphorous deposition in experimental mesocosms. <i>Global Change Biology</i> , <b>2008</b> , 14, 1113-1124	11.4	45
73	Individual vs. population plastic responses to elevated CO <sub>2</sub> , nutrient availability, and heterogeneity: a microcosm experiment with co-occurring species. <i>Plant and Soil</i> , <b>2007</b> , 296, 53-64	4.2	16
72	Biomass responses to elevated CO <sub>2</sub> , soil heterogeneity and diversity: an experimental assessment with grassland assemblages. <i>Oecologia</i> , <b>2007</b> , 151, 512-20	2.9	32
71	Amount or pattern? Grassland responses to the heterogeneity and availability of two key resources. <i>Ecology</i> , <b>2007</b> , 88, 501-11	4.6	73
70	Global desertification: building a science for dryland development. <i>Science</i> , <b>2007</b> , 316, 847-51	33.3	1643
69	Ecohydrological feedbacks and linkages associated with land degradation: a case study from Mexico. <i>Hydrological Processes</i> , <b>2006</b> , 20, 3395-3411	3.3	38

68	Nutrient availability and atmospheric CO <sub>2</sub> partial pressure modulate the effects of nutrient heterogeneity on the size structure of populations in grassland species. <i>Annals of Botany</i> , <b>2006</b> , 98, 227-351	4.1	22
67	Gas exchange and carbon metabolism in two <i>Prosopis</i> species (Fabaceae) from semiarid habitats: effects of elevated CO <sub>2</sub> , N supply, and N source. <i>American Journal of Botany</i> , <b>2006</b> , 93, 716-23	2.7	1
66	Soil heterogeneity and community composition jointly influence grassland biomass. <i>Journal of Vegetation Science</i> , <b>2006</b> , 17, 261-270	3.1	35
65	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> , <b>2006</b> , 94, 17-22	6	161
64	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> , <b>2006</b> , 12, 2431-2441	11.4	38
63	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> , <b>2006</b> , 183, 65-75	1.7	27
62	Soil heterogeneity and community composition jointly influence grassland biomass <b>2006</b> , 17, 261		5
61	UNDERSTANDING GLOBAL DESERTIFICATION: BIOPHYSICAL AND SOCIOECONOMIC DIMENSIONS OF HYDROLOGY <b>2006</b> , 315-332		5
60	SCALING TERRESTRIAL BIOGEOCHEMICAL PROCESSES CONTRASTING INTACT AND MODEL EXPERIMENTAL SYSTEMS <b>2006</b> , 109-130		3
59	Soil nutrient heterogeneity interacts with elevated CO <sub>2</sub> and nutrient availability to determine species and assemblage responses in a model grassland community. <i>New Phytologist</i> , <b>2005</b> , 168, 637-50	9.8	44
58	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> , <b>2005</b> , 93, 748-757	6	545
57	Simulating the dynamics of primary productivity of a Sonoran ecosystem: Model parameterization and validation. <i>Ecological Modelling</i> , <b>2005</b> , 189, 1-24	3	31
56	RECONSTRUCTING PLANT ROOT AREA AND WATER UPTAKE PROFILES. <i>Ecology</i> , <b>2004</b> , 85, 1967-1978	4.6	74
55	Growth, nitrogen uptake, and metabolism in two semiarid shrubs grown at ambient and elevated atmospheric CO <sub>2</sub> concentrations: effects of nitrogen supply and source. <i>American Journal of Botany</i> , <b>2004</b> , 91, 565-72	2.7	7
54	Plant responses to precipitation in desert ecosystems: integrating functional types, pulses, thresholds, and delays. <i>Oecologia</i> , <b>2004</b> , 141, 282-94	2.9	338
53	Modifying the Pulse-reserve paradigm for deserts of North America: precipitation pulses, soil water, and plant responses. <i>Oecologia</i> , <b>2004</b> , 141, 194-210	2.9	520
52	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> , <b>2003</b> , 9, 1475-1493	11.4	65
51	Do morphological changes mediate plant responses to water stress? A steady-state experiment with two C grasses. <i>New Phytologist</i> , <b>2002</b> , 155, 79-88	9.8	36

50	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> , <b>2001</b> , 51, 541-557	4.5	26
49	Desertification <b>2001</b> , 61-78		48
48	Effects of long-term rainfall variability on evapotranspiration and soil water distribution in the Chihuahuan Desert: A modeling analysis. <i>Plant Ecology</i> , <b>2000</b> , 150, 145-159	1.7	165
47	IMPACT OF DROUGHT ON DESERT SHRUBS: EFFECTS OF SEASONALITY AND DEGREE OF RESOURCE ISLAND DEVELOPMENT. <i>Ecological Monographs</i> , <b>1999</b> , 69, 69-106	9	348
46	VALIDITY OF EXTRAPOLATING FIELD CO <sub>2</sub> EXPERIMENTS TO PREDICT CARBON SEQUESTRATION IN NATURAL ECOSYSTEMS. <i>Ecology</i> , <b>1999</b> , 80, 1568-1583	4.6	128
45	A model of arctic tundra vegetation derived from topographic gradients. <i>Landscape Ecology</i> , <b>1998</b> , 13, 187-201	4.3	51
44	Diurnal patterns of CO <sub>2</sub> and H <sub>2</sub> O exchange of the Arctic sedges <i>Eriophorum angustifolium</i> and <i>E. vaginatum</i> (Cyperaceae). <i>American Journal of Botany</i> , <b>1998</b> , 85, 592-599	2.7	16
43	EFFECTS OF COMPENSATORY GROWTH ON POPULATION PROCESSES: A SIMULATION STUDY. <i>Ecology</i> , <b>1997</b> , 78, 2378-2384	4.6	23
42	A comparative modeling study of soil water dynamics in a desert ecosystem. <i>Water Resources Research</i> , <b>1997</b> , 33, 73-90	5.4	80
41	Introduction: modularity in plant models. <i>Ecological Modelling</i> , <b>1997</b> , 94, 1-6	3	16
40	Modularity and genericness in plant and ecosystem models. <i>Ecological Modelling</i> , <b>1997</b> , 94, 7-16	3	71
39	GePSi: A generic plant simulator based on object-oriented principles. <i>Ecological Modelling</i> , <b>1997</b> , 94, 53-66		23
38	A MODEL OF NITROGEN UPTAKE BY ERIOPHORUM VAGINATUM ROOTS IN THE FIELD: ECOLOGICAL IMPLICATIONS. <i>Ecological Monographs</i> , <b>1997</b> , 67, 1-22	9	53
37	Changes in root NH <sub>4</sub> <sup>+</sup> and NO <sub>3</sub> <sup>-</sup> absorption rates of loblolly and ponderosa pine in response to CO <sub>2</sub> enrichment. <i>Plant and Soil</i> , <b>1997</b> , 190, 1-9	4.2	50
36	The effect of elevated CO <sub>2</sub> 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> , <b>1997</b> , 113, 29-36	2.9	64
35	Decomposition processes: modelling approaches and applications. <i>Science of the Total Environment</i> , <b>1996</b> , 183, 137-149	10.2	50
34	Effects of plant size on photosynthesis and water relations in the desert shrub <i>Prosopis glandulosa</i> (Fabaceae). <i>American Journal of Botany</i> , <b>1996</b> , 83, 99-105	2.7	37
33	Modelling whole-plant allocation in relation to carbon and nitrogen supply: Coordination versus optimization: Opinion. <i>Plant and Soil</i> , <b>1996</b> , 185, 65-74	4.2	52

32	Soil aeration in relation to soil physical properties, nitrogen availability, and root characteristics within an arctic watershed. <i>Plant and Soil</i> , <b>1996</b> , 178, 37-48	4.2	31
31	Allometric relations and growth in <i>Pinus taeda</i> : the effect of elevated CO <sub>2</sub> , and changing N availability. <i>New Phytologist</i> , <b>1996</b> , 134, 85-93	9.8	100
30	Effects of plant size on photosynthesis and water relations in the desert shrub <i>Prosopis glandulosa</i> (Fabaceae) <b>1996</b> , 83, 99		24
29	Progress, Limitations, and Challenges in Modeling the Effects of Elevated CO <sub>2</sub> on Plants and Ecosystems <b>1996</b> , 347-380		14
28	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> , <b>1995</b> , 104, 330-339	2.9	27
27	Effects of elevated CO <sub>2</sub> and nitrogen fertilization pretreatments on decomposition on tallgrass prairie leaf litter. <i>Plant and Soil</i> , <b>1994</b> , 165, 115-127	4.2	87
26	The Effect of Neighbors on Root Distribution in a Creosotebush ( <i>Larrea Tridentata</i> ) Population. <i>Ecology</i> , <b>1994</b> , 75, 1693-1702	4.6	131
25	A Simulation Experiment to Quantify Spatial Heterogeneity in Categorical Maps. <i>Ecology</i> , <b>1994</b> , 75, 2446-4.6		185
24	Effects of elevated CO <sub>2</sub> and nitrogen fertilization pretreatments on decomposition on tallgrass prairie leaf litter <b>1994</b> , 115-127		
23	Extracellular Acid Phosphatase Activities in <i>Eriophorum vaginatum</i> Tussocks: A Modeling Synthesis. <i>Arctic and Alpine Research</i> , <b>1993</b> , 25, 50		11
22	Effects of Climate Change on Decomposition in Arctic Tussock Tundra: A Modeling Synthesis. <i>Arctic and Alpine Research</i> , <b>1993</b> , 25, 403		33
21	Relationships between a terrain-based hydrologic model and patch-scale vegetation patterns in an arctic tundra landscape. <i>Landscape Ecology</i> , <b>1993</b> , 8, 229-237	4.3	32
20	A new contagion index to quantify spatial patterns of landscapes. <i>Landscape Ecology</i> , <b>1993</b> , 8, 155-162	4.3	300
19	Coordination theory of leaf nitrogen distribution in a canopy. <i>Oecologia</i> , <b>1993</b> , 93, 63-69	2.9	157
18	Scaling Ecophysiology from the Plant to the Ecosystem: A Conceptual Framework <b>1993</b> , 127-140		13
17	A SIMPLE MODEL FOR PREDICTING SOIL TEMPERATURES IN DESERT ECOSYSTEMS <sup>1</sup> . <i>Soil Science</i> , <b>1992</b> , 153, 280-287	0.9	20
16	Long-Term Response of an Arctic Sedge to Climate Change: A Simulation Study <b>1992</b> , 2, 323-340		20
15	Modeling the effects of elevated CO <sub>2</sub> on plants: extrapolating leaf response to a canopy. <i>Agricultural and Forest Meteorology</i> , <b>1992</b> , 61, 69-94	5.8	43

14	Modeling the Response of Arctic Plants to Changing Climate <b>1992</b> , 413-438		15
13	A Model Allocating Growth Among Leaf Proteins, Shoot Structure, and Root Biomass to Produce Balanced Activity. <i>Annals of Botany</i> , <b>1991</b> , 68, 417-425	4.1	45
12	The Influence of Carbon Dioxide and Daily Photon-flux Density on Optimal Leaf Nitrogen Concentration and Root: Shoot Ratio. <i>Annals of Botany</i> , <b>1991</b> , 68, 365-376	4.1	64
11	A general model of litter decomposition in the northern Chihuahuan Desert. <i>Ecological Modelling</i> , <b>1991</b> , 56, 197-219	3	74
10	The contribution of abiotic processes to buried litter decomposition in the northern Chihuahuan desert. <i>Oecologia</i> , <b>1989</b> , 79, 133-135	2.9	29
9	PATTERNS OF STRATIFIED SOIL WATER LOSS IN A CHIHUAHUAN DESERT COMMUNITY. <i>Soil Science</i> , <b>1989</b> , 148, 244-249	0.9	11
8	THE RATIONALE FOR ADOPTING A MODULAR GENERIC STRUCTURE FOR CROP SIMULATORS. <i>Acta Horticulturae</i> , <b>1989</b> , 391-400	0.3	10
7	Mechanisms of surface litter mass loss in the northern Chihuahuan desert: a reinterpretation. <i>Journal of Arid Environments</i> , <b>1989</b> , 16, 157-163	2.5	59
6	A Modular Structure for Plant Growth Simulation Models <b>1989</b> , 123-134		2
5	EFFECTS OF ELEVATED CARBON DIOXIDE ON ESTIMATION OF LEAF AREA AND LEAF DRY WEIGHT OF SOYBEAN. <i>American Journal of Botany</i> , <b>1988</b> , 75, 1771-1774	2.7	8
4	Estimation of leaf area of soybeans grown under elevated carbon dioxide levels. <i>Field Crops Research</i> , <b>1986</b> , 13, 193-203	5.5	24
3	Predicting the response of plants to increasing carbon dioxide: A critique of plant growth models. <i>Ecological Modelling</i> , <b>1985</b> , 29, 107-129	3	70
2	Validation of a primary production model of the desert shrub <i>Larrea tridentata</i> using soil-moisture augmentation experiments. <i>Oecologia</i> , <b>1981</b> , 51, 357-363	2.9	13
1	Size-biomass Relationships of Several Chihuahuan Desert Shrubs. <i>American Midland Naturalist</i> , <b>1975</b> , 94, 451	0.7	83