Robert Ford Denison

List of Publications by Year
in descending order

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65 papers	4,926 citations	136950 32 h-index	133252 59 g-index
66 all docs	66 docs citations	66 times ranked	4569 citing authors

#	Article	IF	Citations
1	Copy competitively-tested adaptations of wild species, maybe, but not natural ecosystems tested only by persistence. Outlook on Agriculture, 2022, 51, 46-54.	3.4	0
2	An evolutionary perspective on increasing net benefits to crops from symbiotic microbes. Evolutionary Applications, 2022, 15, 1490-1504.	3.1	3
3	Clade-dependent effects of drought on nitrogen fixation and its components â€“ Number, size, and activity of nodules in legumes. Field Crops Research, 2022, 284, 108586.	5.1	0
4	Legume-imposed selection for more-efficient symbiotic rhizobia. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	9
5	Relationships and influence of yield components on spacedâ€plant and sward seed yield in perennial ryegrass. Grass and Forage Science, 2020, 75, 424-437.	2.9	5
6	How do lessâ€expensive nitrogen alternatives affect legume sanctions on rhizobia?. Ecology and Evolution, 2020, 10, 10645-10656.	1.9	16
7	Making science more effective for agriculture. Advances in Agronomy, 2020, , 153-177.	5.2	34
8	Evolutionary tradeâ€offs are key to beneficial manipulation of crops by microbes. American Journal of Botany, 2019, 106, 1529-1531.	1.7	5
9	The century experiment: the first twenty years of <scp>UC</scp> Davis' Mediterranean agroecological experiment. Ecology, 2018, 99, 503-503.	3.2	28
10	Resource acquisition and allocation traits in symbiotic rhizobia with implications for life-history outside of legume hosts. Royal Society Open Science, 2018, 5, 181124.	2.4	11
11	Neither crop genetics nor crop management can be optimised. Field Crops Research, 2016, 189, 75-83.	5.1	40
12	Site-Specific Relationships between Flag Leaf Nitrogen, SPAD Meter Values and Grain Protein in Irrigated Wheat. Assa, Cssa and Sssa, 2015, , 113-122.	0.6	5
13	What should agriculture copy from natural ecosystems?. Global Food Security, 2015, 4, 30-36.	8.1	17
14	Evolutionary tradeoffs as opportunities to improve yield potential. Field Crops Research, 2015, 182, 3-8.	5.1	36
15	A Darwinian perspective on improving nitrogen-fixation efficiency of legume crops and forages. , 2015, , 207-222.		4
16	Inclusive fitness in agriculture. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130367.	4.0	17
17	Applying evolutionary biology to address global challenges. Science, 2014, 346, 1245993.	12.6	228
18	Increasing cooperation among plants, symbionts, and farmers is key to past and future progress in agriculture. Journal of Bioeconomics, 2014, 16, 223-238.	3.3	3

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19	Drowning out the protection racket: partner manipulation or drought can strengthen antâ€“plant mutualism. Trends in Plant Science, 2014, 19, 411-413.	8.8	1
20	Singleâ€strain inoculation may create spurious correlations between legume fitness and rhizobial fitness. New Phytologist, 2013, 198, 4-6.	7.3	40
21	Disentangling Direct and Indirect Fitness Effects of Microbial Dormancy. American Naturalist, 2013, 182, 147-156.	2.1	14
22	DO TRADE-OFFS HAVE EXPLANATORY POWER FOR THE EVOLUTION OF ORGANISMAL INTERACTIONS?. Evolution; International Journal of Organic Evolution, 2012, 66, 1297-1307.	2.3	27
23	Alternative Actions for Antibiotics. Science, 2011, 332, 547-548.	12.6	54
24	Past evolutionary tradeoffs represent opportunities for crop genetic improvement and increased human lifespan. Evolutionary Applications, 2011, 4, 216-224.	3.1	19
25	Evolution in agriculture: the application of evolutionary approaches to the management of biotic interactions in agroâ€ecosystems. Evolutionary Applications, 2011, 4, 200-215.	3.1	177
26	Life Histories of Symbiotic Rhizobia and Mycorrhizal Fungi. Current Biology, 2011, 21, R775-R785.	3.9	162
27	Measuring the fitness of symbiotic rhizobia. Symbiosis, 2011, 55, 85-90.	2.3	33
28	Failure to fix nitrogen by non-reproductive symbiotic rhizobia triggers host sanctions that reduce fitness of their reproductive clonemates. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2698-2703.	2.6	128
29	The biological reality of host sanctions and partner fidelity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E7; author reply E8.	7.1	28
30	Bacterial persistence and bet hedging inSinorhizobium meliloti. Communicative and Integrative Biology, 2011, 4, 98-100.	1.4	20
31	Bacterial persistence and bet hedging in Sinorhizobium meliloti. Communicative and Integrative Biology, 2011, 4, 98-100.	1.4	4
32	Individual-Level Bet Hedging in the Bacterium Sinorhizobium meliloti. Current Biology, 2010, 20, 1740-1744.	3.9	77
33	Individual fitness versus wholeâ€crop photosynthesis:solar tracking tradeoffs in alfalfa. Evolutionary Applications, 2010, 3, 466-472.	3.1	14
34	Multiple evolutionary origins of legume traits leading to extreme rhizobial differentiation. New Phytologist, 2010, 187, 508-520.	7.3	92
35	Comparing Symbiotic Efficiency between Swollen versus Nonswollen Rhizobial Bacteroids. Plant Physiology, 2010, 154, 1541-1548.	4.8	108
36	When Stress Predicts a Shrinking Gene Pool, Trading Early Reproduction for Longevity Can Increase Fitness, Even with Lower Fecundity. PLoS ONE, 2009, 4, e6055.	2.5	12

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37	Darwinian Agriculture. , 2009, , 214-234.		11
38	Rhizobitoxine producers gain more poly-3-hydroxybutyrate in symbiosis than do competing rhizobia, but reduce plant growth. ISME Journal, 2009, 3, 870-872.	9.8	40
39	Do plant parts compete for resources? An evolutionary viewpoint. New Phytologist, 2009, 183, 565-574.	7.3	102
40	Controlling the reproductive fate of rhizobia: how universal are legume sanctions?. New Phytologist, 2009, 183, 967-979.	7.3	108
41	Poly-3-hydroxybutyrate (PHB) supports survival and reproduction in starving rhizobia. FEMS Microbiology Ecology, 2008, 65, 391-399.	2.7	123
42	Sanctions, Cooperation, and the Stability of Plant-Rhizosphere Mutualisms. Annual Review of Ecology, Evolution, and Systematics, 2008, 39, 215-236.	8.3	274
43	Human selection and the relaxation of legume defences against ineffective rhizobia. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 3119-3126.	2.6	179
44	Truncated Hemoglobins in Actinorhizal Nodules of <i>Datisca glomerata</i>. Plant Biology, 2007, 9, 776-785.	3.8	49
45	Model predictions of winter rainfall effects on N dynamics of winter wheat rotation following legume cover crop or fallow. Field Crops Research, 2005, 91, 251-261.	5.1	17
46	Evolutionary Stability of Rhizobium Mutualism Depends on Legume Host Sanctions. , 2005, , 221-224.		1
47	Lifestyle alternatives for rhizobia: mutualism, parasitism, and forgoing symbiosis. FEMS Microbiology Letters, 2004, 237, 187-193.	1.8	168
48	Why are most rhizobia beneficial to their plant hosts, rather than parasitic?. Microbes and Infection, 2004, 6, 1235-1239.	1.9	75
49	Lifestyle alternatives for rhizobia: mutualism, parasitism, and forgoing symbiosis. FEMS Microbiology Letters, 2004, 237, 187-193.	1.8	76
50	Host sanctions and the legumeâ€"rhizobium mutualism. Nature, 2003, 425, 78-81.	27.8	838
51	Darwinian Agriculture: When Can Humans Find Solutions Beyond The Reach of Natural Selection?. Quarterly Review of Biology, 2003, 78, 145-168.	0.1	161
52	Leghaemoglobin oxygenation gradients in alfalfa and yellow sweetclover nodules. Journal of Experimental Botany, 2003, 54, 1085-1091.	4.8	12
53	COOPERATION IN THE RHIZOSPHERE AND THE â€œFREE RIDERâ€•PROBLEM. Ecology, 2003, 84, 838-845.	3.2	71
54	Strong Inference: The Way of Science. American Biology Teacher, 2003, 65, 419-424.	0.2	14

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55	Sanctions and mutualism stability: why do rhizobia fix nitrogen?. Proceedings of the Royal Society B: Biological Sciences, 2002, 269, 685-694.	2.6	292
56	Mediating mutualisms: farm management practices and evolutionary changes in symbiont co-operation. Journal of Applied Ecology, 2002, 39, 745-754.	4.0	89
57	Legume Sanctions and the Evolution of Symbiotic Cooperation by Rhizobia. American Naturalist, 2000, 156, 567-576.	2.1	325
58	Involvement of Ureides in Nitrogen Fixation Inhibition in Soybean1. Plant Physiology, 1999, 119, 289-296.	4.8	117
59	Wheat Yields, Nitrogen Uptake, and Soil Moisture Following Winter Legume Cover Crop vs. Fallow. Agronomy Journal, 1998, 90, 404-410.	1.8	57
60	Wavelength options for monitoring leghaemoglobin oxygenation gradients in intact legume root nodules. Journal of Experimental Botany, 1997, 48, 1251-1258.	4.8	7
61	Mathematical Modeling of Oxygen Diffusion and Respiration in Legume Root Nodules. Plant Physiology, 1992, 98, 901-907.	4.8	43
62	Reversible O2 Inhibition of Nitrogenase Activity in Attached Soybean Nodules. Plant Physiology, 1992, 100, 1863-1868.	4.8	25
63	Nitrogenase Activity, Nodule Respiration, and O2 Permeability Following Detopping of Alfalfa and Birdsfoot Trefoil. Plant Physiology, 1992, 98, 894-900.	4.8	71
64	Measurement of Legume Nodule Respiration and O₂ Permeability by Noninvasive Spectrophotometry of Leghemoglobin. Plant Physiology, 1991, 96, 137-143.	4.8	54
65	Tomato Yield - Color Infrared Photograph Relationships. Assa, Cssa and Sssa, 0, , 1483-1491.	0.6	0