

Ian R Sanders

List of Publications by Year in descending order

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98
papers

13,796
citations

41323

49
h-index

38368

95
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108
all docs

108
docs citations

108
times ranked

9392
citing authors

#	ARTICLE	IF	CITATIONS
1	Mycorrhizal fungal diversity determines plant biodiversity, ecosystem variability and productivity. <i>Nature</i> , 1998, 396, 69-72.	13.7	2,907
2	Mycorrhizal ecology and evolution: the past, the present, and the future. <i>New Phytologist</i> , 2015, 205, 1406-1423.	3.5	1,390
3	The genome of <i>Laccaria bicolor</i> provides insights into mycorrhizal symbiosis. <i>Nature</i> , 2008, 452, 88-92.	13.7	1,003
4	Genome of an arbuscular mycorrhizal fungus provides insight into the oldest plant symbiosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 20117-20122.	3.3	717
5	DIFFERENT ARBUSCULAR MYCORRHIZAL FUNGAL SPECIES ARE POTENTIAL DETERMINANTS OF PLANT COMMUNITY STRUCTURE. <i>Ecology</i> , 1998, 79, 2082-2091.	1.5	623
6	The mycorrhizal contribution to plant productivity, plant nutrition and soil structure in experimental grassland. <i>New Phytologist</i> , 2006, 172, 739-752.	3.5	336
7	Evidence for the evolution of multiple genomes in arbuscular mycorrhizal fungi. <i>Nature</i> , 2001, 414, 745-748.	13.7	306
8	The transcriptome of the arbuscular mycorrhizal fungus <i>Glomus intraradices</i> (DAOM 197198) reveals functional tradeoffs in an obligate symbiont. <i>New Phytologist</i> , 2012, 193, 755-769.	3.5	305
9	Identification of ribosomal DNA polymorphisms among and within spores of the Glomales: application to studies on the genetic diversity of arbuscular mycorrhizal fungal communities. <i>New Phytologist</i> , 1995, 130, 419-427.	3.5	304
10	SOIL TILLAGE AFFECTS THE COMMUNITY STRUCTURE OF MYCORRHIZAL FUNGI IN MAIZE ROOTS. , 2003, 13, 1164-1176.		285
11	Different arbuscular mycorrhizal fungi alter coexistence and resource distribution between co-occurring plant. <i>New Phytologist</i> , 2003, 157, 569-578.	3.5	249
12	Characterisation of microbial communities colonising the hyphal surfaces of arbuscular mycorrhizal fungi. <i>ISME Journal</i> , 2010, 4, 752-763.	4.4	215
13	High genetic variability and low local diversity in a population of arbuscular mycorrhizal fungi. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 2369-2374.	3.3	188
14	Genetic variability in a population of arbuscular mycorrhizal fungi causes variation in plant growth. <i>Ecology Letters</i> , 2006, 9, 103-110.	3.0	185
15	Clonal Growth Traits of Two <i>Prunella</i> Species are Determined by Co-Occurring Arbuscular Mycorrhizal Fungi from a Calcareous Grassland. <i>Journal of Ecology</i> , 1997, 85, 181.	1.9	182
16	Predicting community and ecosystem outcomes of mycorrhizal responses to global change. <i>Ecology Letters</i> , 2013, 16, 140-153.	3.0	175
17	Nonself vegetative fusion and genetic exchange in the arbuscular mycorrhizal fungus <i>Glomus intraradices</i> . <i>New Phytologist</i> , 2009, 181, 924-937.	3.5	165
18	Low gene copy number shows that arbuscular mycorrhizal fungi inherit genetically different nuclei. <i>Nature</i> , 2005, 433, 160-163.	13.7	160

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19	The role of community and population ecology in applying mycorrhizal fungi for improved food security. <i>ISME Journal</i> , 2015, 9, 1053-1061.	4.4	160
20	Segregation in a Mycorrhizal Fungus Alters Rice Growth and Symbiosis-Specific Gene Transcription. <i>Current Biology</i> , 2010, 20, 1216-1221.	1.8	140
21	Arbuscular mycorrhizal fungi influence life history traits of a lepidopteran herbivore. <i>Oecologia</i> , 2000, 125, 362-369.	0.9	136
22	The In Vitro Mass-Produced Model Mycorrhizal Fungus, <i>Rhizophagus irregularis</i> , Significantly Increases Yields of the Globally Important Food Security Crop Cassava. <i>PLoS ONE</i> , 2013, 8, e70633.	1.1	135
23	The genetic diversity of arbuscular mycorrhizal fungi in natural ecosystems - a key to understanding the ecology and functioning of the mycorrhizal symbiosis. <i>New Phytologist</i> , 1996, 133, 123-134.	3.5	127
24	Soil fungal communities of grasslands are environmentally structured at a regional scale in the <i>scps</i> . <i>Molecular Ecology</i> , 2014, 23, 4274-4290.	2.0	125
25	Genetic diversity and host plant preferences revealed by simple sequence repeat and mitochondrial markers in a population of the arbuscular mycorrhizal fungus <i>Glomus intraradices</i> . <i>New Phytologist</i> , 2008, 178, 672-687.	3.5	120
26	Plant and arbuscular mycorrhizal fungal diversity “are we looking at the relevant levels of diversity and are we using the right techniques?”. <i>New Phytologist</i> , 2004, 164, 415-418.	3.5	118
27	Evidence for differential responses between host-fungus combinations of vesicular-arbuscular mycorrhizas from a grassland. <i>Mycological Research</i> , 1992, 96, 415-419.	2.5	112
28	Arbuscular Mycorrhiza: The Challenge to Understand the Genetics of the Fungal Partner. <i>Annual Review of Genetics</i> , 2010, 44, 271-292.	3.2	104
29	Preference, specificity and cheating in the arbuscular mycorrhizal symbiosis. <i>Trends in Plant Science</i> , 2003, 8, 143-145.	4.3	101
30	The ecology and functioning of vesicular-arbuscular mycorrhizas in co-existing grassland species. I. Seasonal patterns of mycorrhizal occurrence and morphology.. <i>New Phytologist</i> , 1992, 120, 517-524.	3.5	97
31	The arbuscular mycorrhizal fungus <i>Glomus intraradices</i> is haploid and has a small genome size in the lower limit of eukaryotes. <i>Fungal Genetics and Biology</i> , 2004, 41, 253-261.	0.9	96
32	A population genomics approach shows widespread geographical distribution of cryptic genomic forms of the symbiotic fungus <i>Rhizophagus irregularis</i> . <i>ISME Journal</i> , 2018, 12, 17-30.	4.4	92
33	Recombination in <i>Glomus intraradices</i> , a supposed ancient asexual arbuscular mycorrhizal fungus. <i>BMC Evolutionary Biology</i> , 2009, 9, 13.	3.2	86
34	Phylogenetic Analysis of a Dataset of Fungal 5.8S rDNA Sequences Shows That Highly Divergent Copies of Internal Transcribed Spacers Reported from <i>Scutellospora castanea</i> Are of Ascomycete Origin. <i>Fungal Genetics and Biology</i> , 1999, 28, 238-244.	0.9	81
35	No sex please, we're fungi. <i>Nature</i> , 1999, 399, 737-738.	13.7	80
36	The ecology and functioning of vesicular-arbuscular mycorrhizas in co-existing grassland species. II. Nutrient uptake and growth of vesicular-arbuscular mycorrhizal plants in a semi-natural grassland. <i>New Phytologist</i> , 1992, 120, 525-533.	3.5	79

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37	THE ECOLOGICAL SIGNIFICANCE OF ARBUSCULAR MYCORRHIZAL FUNGAL EFFECTS ON CLONAL REPRODUCTION IN PLANTS. <i>Ecology</i> , 2001, 82, 2846-2859.	1.5	77
38	Increased allocation to external hyphae of arbuscular mycorrhizal fungi under CO ₂ enrichment. <i>Oecologia</i> , 1998, 117, 496-503.	0.9	76
39	Bacteria with Phosphate Solubilizing Capacity Alter Mycorrhizal Fungal Growth Both Inside and Outside the Root and in the Presence of Native Microbial Communities. <i>PLoS ONE</i> , 2016, 11, e0154438.	1.1	75
40	Gene Copy Number Polymorphisms in an Arbuscular Mycorrhizal Fungal Population. <i>Applied and Environmental Microbiology</i> , 2007, 73, 366-369.	1.4	69
41	Ecology and Evolution of Multigenomic Arbuscular Mycorrhizal Fungi. <i>American Naturalist</i> , 2002, 160, S128-S141.	1.0	66
42	Significant genetic and phenotypic changes arising from clonal growth of a single spore of an arbuscular mycorrhizal fungus over multiple generations. <i>New Phytologist</i> , 2012, 196, 853-861.	3.5	66
43	Relatedness among arbuscular mycorrhizal fungi drives plant growth and intraspecific fungal coexistence. <i>ISME Journal</i> , 2013, 7, 2137-2146.	4.4	63
44	Identification and Isolation of Two Ascomycete Fungi from Spores of the Arbuscular Mycorrhizal Fungus <i>Scutellospora castanea</i> . <i>Applied and Environmental Microbiology</i> , 2002, 68, 4567-4573.	1.4	61
45	Rapid genotypic change and plasticity in arbuscular mycorrhizal fungi is caused by a host shift and enhanced by segregation. <i>ISME Journal</i> , 2014, 8, 284-294.	4.4	60
46	Gene organization of the mating type regions in the ectomycorrhizal fungus <i>Laccaria bicolor</i> reveals distinct evolution between the two mating type loci. <i>New Phytologist</i> , 2008, 180, 329-342.	3.5	59
47	Evidence of Recombination in Putative Ancient Asexuals. <i>Molecular Biology and Evolution</i> , 2003, 20, 754-761.	3.5	57
48	Changes in arbuscular mycorrhizal fungal phenotypes and genotypes in response to plant species identity and phosphorus concentration. <i>New Phytologist</i> , 2009, 184, 412-423.	3.5	57
49	Population genomics reveals that within-fungus polymorphism is common and maintained in populations of the mycorrhizal fungus <i>Rhizophagus irregularis</i> . <i>ISME Journal</i> , 2016, 10, 2514-2526.	4.4	54
50	Nutrient Acquisition and Community Structure in Co-Occurring Mycotrophic and Non-mycotrophic Oldfield Annuals. <i>Functional Ecology</i> , 1994, 8, 77.	1.7	51
51	Monophyly of β -tubulin and H ⁺ -ATPase gene variants in <i>Glomus</i> intraradices: consequences for molecular evolutionary studies of AM fungal genes. <i>Fungal Genetics and Biology</i> , 2004, 41, 262-273.	0.9	51
52	Dual RNA-seq reveals large-scale non-conserved genotype \tilde{A} – genotype-specific genetic reprogramming and molecular crosstalk in the mycorrhizal symbiosis. <i>ISME Journal</i> , 2019, 13, 1226-1238.	4.4	49
53	Detection of specific antigens in the vesicular-arbuscular mycorrhizal fungi <i>Gigaspora margarita</i> and <i>Acaulospora laevis</i> using polyclonal antibodies to soluble spore fractions. <i>Mycological Research</i> , 1992, 96, 477-480.	2.5	47
54	Does the generalist parasitic plant <i>Cuscuta campestris</i> selectively forage in heterogeneous plant communities?. <i>New Phytologist</i> , 2004, 162, 147-155.	3.5	46

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55	Arbuscular mycorrhizal fungi (Glomeromycota) harbour ancient fungal tubulin genes that resemble those of the chytrids (Chytridiomycota). <i>Fungal Genetics and Biology</i> , 2004, 41, 1037-1045.	0.9	45
56	Genetic Exchange in an Arbuscular Mycorrhizal Fungus Results in Increased Rice Growth and Altered Mycorrhiza-Specific Gene Transcription. <i>Applied and Environmental Microbiology</i> , 2011, 77, 6510-6515.	1.4	45
57	Specificity in the Arbuscular Mycorrhizal Symbiosis. <i>Ecological Studies</i> , 2002, , 415-437.	0.4	43
58	Evolution of the P-type II ATPase gene family in the fungi and presence of structural genomic changes among isolates of <i>Glomus intraradices</i> . <i>BMC Evolutionary Biology</i> , 2006, 6, 21.	3.2	42
59	Identity and combinations of arbuscular mycorrhizal fungal isolates influence plant resistance and insect preference. <i>Ecological Entomology</i> , 2013, 38, 330-338.	1.1	42
60	Rapid disease emergence through horizontal gene transfer between eukaryotes. <i>Trends in Ecology and Evolution</i> , 2006, 21, 656-658.	4.2	41
61	Effect of segregation and genetic exchange on arbuscular mycorrhizal fungi in colonization of roots. <i>New Phytologist</i> , 2011, 189, 652-657.	3.5	39
62	Plant species distributions along environmental gradients: do belowground interactions with fungi matter?. <i>Frontiers in Plant Science</i> , 2013, 4, 500.	1.7	38
63	Molecular characterization of chromosome termini of the arbuscular mycorrhizal fungus <i>Glomus intraradices</i> (Glomeromycota). <i>Fungal Genetics and Biology</i> , 2007, 44, 1380-1386.	0.9	37
64	Aligning molecular studies of mycorrhizal fungal diversity with ecologically important levels of diversity in ecosystems. <i>ISME Journal</i> , 2016, 10, 2780-2786.	4.4	36
65	"Sampling Effect", a Problem in Biodiversity Manipulation? A Reply to David A. Wardle. <i>Oikos</i> , 1999, 87, 408.	1.2	33
66	The role of mycorrhizas in more sustainable oil palm cultivation. <i>Agriculture, Ecosystems and Environment</i> , 2010, 135, 187-193.	2.5	33
67	Cost-efficient production of in vitro <i>Rhizophagus irregularis</i> . <i>Mycorrhiza</i> , 2017, 27, 477-486.	1.3	33
68	Mycorrhizal stimulation of plant parasitism. <i>Canadian Journal of Botany</i> , 1993, 71, 1143-1146.	1.2	31
69	Temporal infectivity and specificity of vesicular-arbuscular mycorrhizas in co-existing grassland species. <i>Oecologia</i> , 1993, 93, 349-355.	0.9	29
70	High-Level Molecular Diversity of Copper-Zinc Superoxide Dismutase Genes among and within Species of Arbuscular Mycorrhizal Fungi. <i>Applied and Environmental Microbiology</i> , 2009, 75, 1970-1978.	1.4	25
71	Effect of co-application of phosphorus fertilizer and in vitro-produced mycorrhizal fungal inoculants on yield and leaf nutrient concentration of cassava. <i>PLoS ONE</i> , 2019, 14, e0218969.	1.1	24
72	â€˜Designerâ€™ mycorrhizas?: Using natural genetic variation in AM fungi to increase plant growth. <i>ISME Journal</i> , 2010, 4, 1081-1083.	4.4	22

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73	Intraspecific genetic variation in arbuscular mycorrhizal fungi and its consequences for molecular biology, ecology, and development of inoculum. <i>Canadian Journal of Botany</i> , 2004, 82, 1057-1062.	1.2	21
74	The Phosphate Inhibition Paradigm: Host and Fungal Genotypes Determine Arbuscular Mycorrhizal Fungal Colonization and Responsiveness to Inoculation in Cassava With Increasing Phosphorus Supply. <i>Frontiers in Plant Science</i> , 2021, 12, 693037.	1.7	21
75	Multilocus genotyping of arbuscular mycorrhizal fungi and marker suitability for population genetics. <i>New Phytologist</i> , 2008, 180, 564-568.	3.5	19
76	Density-based hierarchical clustering of pyro-sequences on a large scale—the case of fungal ITS1. <i>Bioinformatics</i> , 2013, 29, 1268-1274.	1.8	19
77	Mycorrhizal Ecology: Synthesis and Perspectives. <i>Ecological Studies</i> , 2002, , 441-456.	0.4	18
78	The methylome of the model arbuscular mycorrhizal fungus, <i>Rhizophagus irregularis</i> , shares characteristics with early diverging fungi and <i>Dikarya</i> . <i>Communications Biology</i> , 2021, 4, 901.	2.0	17
79	Variation in allele frequencies at the <i>bg112</i> locus reveals unequal inheritance of nuclei in a dikaryotic isolate of the fungus <i>Rhizophagus irregularis</i> . <i>Mycorrhiza</i> , 2018, 28, 369-377.	1.3	15
80	Conspirators in blight. <i>Nature</i> , 2005, 437, 823-824.	13.7	14
81	Mycorrhizal Symbioses: How to Be Seen as a Good Fungus. <i>Current Biology</i> , 2011, 21, R550-R552.	1.8	13
82	Arbuscular mycorrhizal fungi: genetics of multigenomic, clonal networks and its ecological consequences. <i>Biological Journal of the Linnean Society</i> , 2003, 79, 59-60.	0.7	12
83	Genetic variation and evolutionary history of a mycorrhizal fungus regulate the currency of exchange in symbiosis with the food security crop cassava. <i>ISME Journal</i> , 2020, 14, 1333-1344.	4.4	12
84	Greater topoclimatic control of above- versus below-ground communities. <i>Global Change Biology</i> , 2020, 26, 6715-6728.	4.2	11
85	Fungal Sex: Meiosis Machinery in Ancient Symbiotic Fungi. <i>Current Biology</i> , 2011, 21, R896-R897.	1.8	10
86	Investigating unexplained genetic variation and its expression in the arbuscular mycorrhizal fungus <i>Rhizophagus irregularis</i> : A comparison of whole genome and RAD sequencing data. <i>PLoS ONE</i> , 2019, 14, e0226497.	1.1	10
87	Coexistence of genetically different <i>Rhizophagus irregularis</i> isolates induces genes involved in a putative fungal mating response. <i>ISME Journal</i> , 2020, 14, 2381-2394.	4.4	10
88	Generation of unequal nuclear genotype proportions in <i>Rhizophagus irregularis</i> progeny causes allelic imbalance in gene transcription. <i>New Phytologist</i> , 2021, 231, 1984-2001.	3.5	10
89	Sex, plasticity, and biologically significant variation in one Glomeromycotina species. <i>New Phytologist</i> , 2018, 220, 968-970.	3.5	9
90	Within-species phylogenetic relatedness of a common mycorrhizal fungus affects evenness in plant communities through effects on dominant species. <i>PLoS ONE</i> , 2018, 13, e0198537.	1.1	7

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91	Hierarchical spatial sampling reveals factors influencing arbuscular mycorrhizal fungus diversity in Côte d'Ivoire cocoa plantations. <i>Mycorrhiza</i> , 2021, 31, 289-300.	1.3	7
92	Genetically Different Isolates of the Arbuscular Mycorrhizal Fungus <i>Rhizophagus irregularis</i> Induce Differential Responses to Stress in Cassava. <i>Frontiers in Plant Science</i> , 2020, 11, 596929.	1.7	4
93	Diversity and Structure in Natural Communities: The Role of the Mycorrhizal Symbiosis. , 1999, , 571-593.		4
94	Decreasing relatedness among mycorrhizal fungi in a shared plant network increases fungal network size but not plant benefit. <i>Ecology Letters</i> , 2022, 25, 509-520.	3.0	4
95	Co-existence of AMF with different putative MAT-alleles induces genes homologous to those involved in mating in other fungi: a reply to Malar et al.. <i>ISME Journal</i> , 2021, 15, 2180-2182.	4.4	3
96	Reciprocal recombination genomic signatures in the symbiotic arbuscular mycorrhizal fungi <i>Rhizophagus irregularis</i> . <i>PLoS ONE</i> , 2022, 17, e0270481.	1.1	2
97	Consequences of Segregation and Genetic Exchange on Adaptability in Arbuscular Mycorrhizal Fungi (AMF). , 2013, , 231-243.		0
98	Efecto de la inoculación <i>Rhizophagus irregularis</i> y de la fertilización fosfatada sobre la comunidad local de hongos formadores de micorrizas arbusculares. <i>Bioteecnología En El Sector Agropecuario Y Agroindustrial</i> , 2021, 19, 184-200.	0.2	0