Marc St-Arnaud

List of Publications by Year
in descending order

122 papers	5,907 citations	66315 42 h-index	79644 73 g-index
126 all docs	126 docs citations	126 times ranked	5170 citing authors

#	Article	IF	Citations
1	Inter-Kingdom Networks of Canola Microbiome Reveal Bradyrhizobium as Keystone Species and Underline the Importance of Bulk Soil in Microbial Studies to Enhance Canola Production. Microbial Ecology, 2022, 84, 1166-1181.	1.4	6
2	Long-Term Persistence of Arbuscular Mycorrhizal Fungi in the Rhizosphere and Bulk Soils of Non-host Brassica napus and Their Networks of Co-occurring Microbes. Frontiers in Plant Science, 2022, 13, 828145.	1.7	10
3	In-Depth Characterization of Plant Growth Promotion Potentials of Selected Alkanes-Degrading Plant Growth-Promoting Bacterial Isolates. Frontiers in Microbiology, 2022, 13, 863702.	1.5	16
4	<i>Brassicaceae</i> host plants mask the feedback from the previous year's soil history on bacterial communities, except when they experience drought. Environmental Microbiology, 2022, 24, 3529-3548.	1.8	5
5	Rhizosphere shotgun metagenomic analyses fail to show differences between ancestral and modern wheat genotypes grown under low fertilizer inputs. FEMS Microbiology Ecology, 2021, 97, .	1.3	3
6	Anthropogenic drivers of soil microbial communities and impacts on soil biological functions in agroecosystems. Global Ecology and Conservation, 2021, 27, e01521.	1.0	38
7	Overview of Approaches to Improve Rhizoremediation of Petroleum Hydrocarbon-Contaminated Soils. Applied Microbiology, 2021, 1, 329-351.	0.7	25
8	Salix purpurea and Eleocharis obtusa Rhizospheres Harbor a Diverse Rhizospheric Bacterial Community Characterized by Hydrocarbons Degradation Potentials and Plant Growth-Promoting Properties. Plants, 2021, 10, 1987.	1.6	4
9	Hydrocarbon substrate richness impacts microbial abundance, microbiome composition, and hydrocarbon loss. Applied Soil Ecology, 2021, 165, 104015.	2.1	3
10	Effects of arbuscular mycorrhizal fungi inoculation and crop sequence on root-associated microbiome, crop productivity and nutrient uptake in wheat-based and flax-based cropping systems. Applied Soil Ecology, 2021, 168, 104136.	2.1	10
11	Fungal Communities of the Canola Rhizosphere: Keystone Species and Substantial Between-Year Variation of the Rhizosphere Microbiome. Microbial Ecology, 2020, 80, 762-777.	1.4	33
12	Expression of Nâ€cycling genes of root microbiomes provides insights for sustaining oilseed crop production. Environmental Microbiology, 2020, 22, 4545-4556.	1.8	11
13	Isolation and Characterization of Plant Growth Promoting Endophytic Bacteria from Desert Plants and Their Application as Bioinoculants for Sustainable Agriculture. Agronomy, 2020, 10, 1325.	1.3	105
14	Arbuscular Mycorrhizal Fungal Communities of Native Plant Species under High Petroleum Hydrocarbon Contamination Highlights Rhizophagus as a Key Tolerant Genus. Microorganisms, 2020, 8, 872.	1.6	12
15	Bacterial Communities of the Canola Rhizosphere: Network Analysis Reveals a Core Bacterium Shaping Microbial Interactions. Frontiers in Microbiology, 2020, 11, 1587.	1.5	16
16	Arbuscular Mycorrhizal Fungal Assemblages Significantly Shifted upon Bacterial Inoculation in Non-Contaminated and Petroleum-Contaminated Environments. Microorganisms, 2020, 8, 602.	1.6	19
17	Plant Identity Shaped Rhizospheric Microbial Communities More Strongly Than Bacterial Bioaugmentation in Petroleum Hydrocarbon-Polluted Sediments. Frontiers in Microbiology, 2019, 10, 2144.	1.5	28
18	What determines host specificity in hyperspecialized plant parasitic nematodes?. BMC Genomics, 2019, 20, 457.	1.2	11

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19	Lentil enhances the productivity and stability of oilseed-cereal cropping systems across different environments. European Journal of Agronomy, 2019, 105, 24-31.	1.9	24
20	Soil contamination alters the willow root and rhizosphere metatranscriptome and the rootâ€“rhizosphere interactome. ISME Journal, 2018, 12, 869-884.	4.4	91
21	Contribution of <i>Medicago sativa</i> to the productivity and nutritive value of forage in semiâ€arid grassland pastures. Grass and Forage Science, 2018, 73, 159-173.	1.2	6
22	Rhizoremediation of petroleum hydrocarbons: a model system for plant microbiome manipulation. Microbial Biotechnology, 2018, 11, 819-832.	2.0	88
23	Canola Rootâ€“Associated Microbiomes in the Canadian Prairies. Frontiers in Microbiology, 2018, 9, 1188.	1.5	85
24	Investigating the Effect of a Mixed Mycorrhizal Inoculum on the Productivity of Biomass Plantation Willows Grown on Marginal Farm Land. Forests, 2018, 9, 185.	0.9	5
25	Trees, fungi and bacteria: tripartite metatranscriptomics of a root microbiome responding to soil contamination. Microbiome, 2018, 6, 53.	4.9	88
26	Taxonomy and pathogenicity of Olpidium brassicae and its allied species. Fungal Biology, 2018, 122, 837-846.	1.1	49
27	Transcriptome-wide selection of a reliable set of reference genes for gene expression studies in potato cyst nematodes (Globodera spp.). PLoS ONE, 2018, 13, e0193840.	1.1	9
28	Igneous phosphate rock solubilization by biofilm-forming mycorrhizobacteria and hyphobacteria associated with Rhizoglomus irregulare DAOM 197198. Mycorrhiza, 2017, 27, 13-22.	1.3	61
29	Petroleum biodegradation capacity of bacteria and fungi isolated from petroleum-contaminated soil. International Biodeterioration and Biodegradation, 2017, 116, 48-57.	1.9	105
30	Petroleum Contamination and Plant Identity Influence Soil and Root Microbial Communities While AMF Spores Retrieved from the Same Plants Possess Markedly Different Communities. Frontiers in Plant Science, 2017, 8, 1381.	1.7	34
31	Concentration of Petroleum-Hydrocarbon Contamination Shapes Fungal Endophytic Community Structure in Plant Roots. Frontiers in Microbiology, 2016, 7, 685.	1.5	19
32	Root Exudation: The Ecological Driver of Hydrocarbon Rhizoremediation. Agronomy, 2016, 6, 19.	1.3	119
33	A Diverse Soil Microbiome Degrades More Crude Oil than Specialized Bacterial Assemblages Obtained in Culture. Applied and Environmental Microbiology, 2016, 82, 5530-5541.	1.4	63
34	Petroleum hydrocarbon contamination, plant identity and arbuscular mycorrhizal fungal (AMF) community determine assemblages of the AMF sporeâ€associated microbes. Environmental Microbiology, 2016, 18, 2689-2704.	1.8	38
35	Early rhizosphere microbiome composition is related to the growth and <scp><scp>Zn</scp></scp> uptake of willows introduced to a former landfill. Environmental Microbiology, 2015, 17, 3025-3038.	1.8	61
36	Harnessing phytomicrobiome signaling for rhizosphere microbiome engineering. Frontiers in Plant Science, 2015, 6, 507.	1.7	176

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37	Arbuscular mycorrhizal fungal diversity associated with Eleocharis obtusa and Panicum capillare growing in an extreme petroleum hydrocarbon-polluted sedimentation basin. FEMS Microbiology Letters, 2015, 362, fnv081.	0.7	19
38	Plant assemblage composition and soil P concentration differentially affect communities of AM and total fungi in a semi-arid grassland. FEMS Microbiology Ecology, 2015, 91, 1-13.	1.3	19
39	Trapping of phosphate solubilizing bacteria on hyphae of the arbuscular mycorrhizal fungus Rhizophagus irregularis DAOM 197198. Soil Biology and Biochemistry, 2015, 90, 1-9.	4.2	80
40	Root endophytes modify the negative effects of chickpea on the emergence of durum wheat. Applied Soil Ecology, 2015, 96, 201-210.	2.1	5
41	Culture-Dependent and -Independent Methods Capture Different Microbial Community Fractions in Hydrocarbon-Contaminated Soils. PLoS ONE, 2015, 10, e0128272.	1.1	167
42	Contrasting the Community Structure of Arbuscular Mycorrhizal Fungi from Hydrocarbon-Contaminated and Uncontaminated Soils following Willow (Salix spp. L.) Planting. PLoS ONE, 2014, 9, e102838.	1.1	50
43	Linkage between bacterial and fungal rhizosphere communities in hydrocarbon-contaminated soils is related to plant phylogeny. ISME Journal, 2014, 8, 331-343.	4.4	190
44	Microbial expression profiles in the rhizosphere of willows depend on soil contamination. ISME Journal, 2014, 8, 344-358.	4.4	229
45	<i>Bacteria</i>associated with arbuscular mycorrhizal fungi within roots of plants growing in a soil highly contaminated with aliphatic and aromatic petroleum hydrocarbons. FEMS Microbiology Letters, 2014, 358, 44-54.	0.7	50
46	Interaction between legume and arbuscular mycorrhizal fungi identity alters the competitive ability of warm-season grass species in a grassland community. Soil Biology and Biochemistry, 2014, 70, 176-182.	4.2	22
47	Impact of 12-year field treatments with organic and inorganic fertilizers on crop productivity and mycorrhizal community structure. Biology and Fertility of Soils, 2013, 49, 1109-1121.	2.3	18
48	Effect of arbuscular mycorrhizal fungi on trace metal uptake by sunflower plants grown on cadmium contaminated soil. New Biotechnology, 2013, 30, 780-787.	2.4	124
49	Various forms of organic and inorganic P fertilizers did not negatively affect soil- and root-inhabiting AM fungi in a maizeâ€“soybean rotation system. Mycorrhiza, 2013, 23, 143-154.	1.3	36
50	Chickpea genotypes shape the soil microbiome and affect the establishment of the subsequent durum wheat crop in the semiarid North American Great Plains. Soil Biology and Biochemistry, 2013, 63, 129-141.	4.2	58
51	Allelic Differences within and among Sister Spores of the Arbuscular Mycorrhizal Fungus Glomus etunicatum Suggest Segregation at Sporulation. PLoS ONE, 2013, 8, e83301.	1.1	19
52	Arbuscular mycorrhizal fungi assemblages in Chernozem great groups revealed by massively parallel pyrosequencing. Canadian Journal of Microbiology, 2012, 58, 81-92.	0.8	28
53	Phytochemicals and spore germination: At the root of AMF host preference?. Applied Soil Ecology, 2012, 60, 98-104.	2.1	38
54	Molecular biodiversity of arbuscular mycorrhizal fungi in trace metalâ€polluted soils. Molecular Ecology, 2011, 20, 3469-3483.	2.0	106

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55	Isolation and identification of soil bacteria growing at the expense of arbuscular mycorrhizal fungi. FEMS Microbiology Letters, 2011, 317, 43-51.	0.7	86
56	Spore development and nuclear inheritance in arbuscular mycorrhizal fungi. BMC Evolutionary Biology, 2011, 11, 51.	3.2	84
57	Long-Term Phosphorus Fertilization Impacts Soil Fungal and Bacterial Diversity but not AM Fungal Community in Alfalfa. Microbial Ecology, 2010, 59, 379-389.	1.4	185
58	Phytoextraction of heavy metals by two Salicaceae clones in symbiosis with arbuscular mycorrhizal fungi during the second year of a field trial. Plant and Soil, 2010, 332, 55-67.	1.8	95
59	The bacterial community of tomato rhizosphere is modified by inoculation with arbuscular mycorrhizal fungi but unaffected by soil enrichment with mycorrhizal root exudates or inoculation with Phytophthora nicotianae. Soil Biology and Biochemistry, 2010, 42, 473-483.	4.2	67
60	Patterns of Fusarium community structure and abundance in relation to spatial, abiotic and biotic factors in soil. FEMS Microbiology Ecology, 2010, 71, 34-42.	1.3	32
61	Phytoremediation. , 2010, , .		1
62	Role of the modification in root exudation induced by arbuscular mycorrhizal colonization on the intraradical growth of Phytophthora nicotianae in tomato. Mycorrhiza, 2009, 19, 443-448.	1.3	24
63	Transcriptional activity of antifungal metabolite-encoding genes phlD and hcnBC in Pseudomonas spp. using qRT-PCR. FEMS Microbiology Ecology, 2009, 68, 212-222.	1.3	39
64	Role of Root Exudates and Rhizosphere Microflora in the Arbuscular Mycorrhizal Fungi-Mediated Biocontrol of Phytophthora nicotianae in Tomato. Soil Biology, 2009, , 141-158.	0.6	3
65	Mycorrhizal colonization with Glomus intraradices and development stage of transformed tomato roots significantly modify the chemotactic response of zoospores of the pathogen Phytophthora nicotianae. Soil Biology and Biochemistry, 2008, 40, 2217-2224.	4.2	69
66	Arbuscular Mycorrhizal Fungi Communities in Major Intensive North American Grain Productions. , 2008, , 135-157.		2
67	An altered root exudation pattern through mycorrhization affecting microconidia germination of the highly specialized tomato pathogen <i>Fusarium oxysporum</i> f. sp. <i>lycopersici</i> (<i>Fol</i>) is not tomato specific but also occurs in <i>Fol</i> nonhost plants. Canadian Journal of Botany, 2007, 85, 347-352.	1.2	14
68	In Vitro Asymbiotic Germination, Protocorm Development, and Plantlet Acclimatization of Aplectrum Hyemale (Muhl. ex Willd.) Torr. (Orchidaceae). Journal of the Torrey Botanical Society, 2007, 134, 344-348.	0.1	19
69	Fungal Diversity, Dominance, and Community Structure in the Rhizosphere of Clonal Picea mariana Plants Throughout Nursery Production Chronosequences. Microbial Ecology, 2007, 54, 672-684.	1.4	33
70	Relationships between Fusarium population structure, soil nutrient status and disease incidence in field-grown asparagus. FEMS Microbiology Ecology, 2006, 58, 394-403.	1.3	35
71	Biodiversity and Biogeography of Fusarium Species from Northeastern North American Asparagus Fields Based on Microbiological and Molecular Approaches. Microbial Ecology, 2006, 51, 242-255.	1.4	56
72	Changes in Communities of Fusarium and Arbuscular Mycorrhizal Fungi as Related to Different Asparagus Cultural Factors. Microbial Ecology, 2006, 52, 104-113.	1.4	28

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73	Factors Associated with Fusarium Crown and Root Rot of Asparagus Outbreaks in Quebec. Phytopathology, 2005, 95, 867-873.	1.1	25
74	Negative feedback on a perennial crop: Fusarium crown and root rot of asparagus is related to changes in soil microbial community structure. Plant and Soil, 2005, 268, 75-87.	1.8	60
75	Real-Time Quantitative RT-PCR of Defense-Associated Gene Transcripts of Rhizoctonia solani-Infected Bean Seedlings in Response to Inoculation with a Nonpathogenic Binucleate Rhizoctonia Isolate. Phytopathology, 2005, 95, 345-353.	1.1	44
76	A PCR-denaturing gradient gel electrophoresis approach to assess Fusarium diversity in asparagus. Journal of Microbiological Methods, 2005, 60, 143-154.	0.7	83
77	Root Rot of Black Spruce Caused by Cylindrocladium canadense in Eastern North America. Plant Disease, 2005, 89, 204-204.	0.7	2
78	Molecular Profiling of Rhizosphere Microbial Communities Associated with Healthy and Diseased Black Spruce (Picea mariana) Seedlings Grown in a Nursery. Applied and Environmental Microbiology, 2004, 70, 3541-3551.	1.4	77
79	Proteomics as a way to identify extra-radicular fungal proteins from Glomus intraradicesÃ¢Â€Â“ RiT-DNA carrot root mycorrhizas. FEMS Microbiology Ecology, 2004, 48, 401-411.	1.3	32
80	Nitrogen transfer and assimilation between the arbuscular mycorrhizal fungus Glomus intraradices Schenck & Smith and Ri T-DNA roots of Daucus carota L. in an in vitro compartmented system. Canadian Journal of Microbiology, 2004, 50, 251-260.	0.8	118
81	Quantification of Fusarium solani f. sp. phaseoli in Mycorrhizal Bean Plants and Surrounding Mycorrhizosphere Soil Using Real-Time Polymerase Chain Reaction and Direct Isolations on Selective Media. Phytopathology, 2003, 93, 229-235.	1.1	117
82	Direct quantification of fungal DNA from soil substrate using real-time PCR. Journal of Microbiological Methods, 2003, 53, 67-76.	0.7	140
83	Arbuscular mycorrhizal responsiveness of in vitro tomato root lines is not related to growth and nutrient uptake rates. Canadian Journal of Botany, 2003, 81, 645-656.	1.2	11
84	A New Species of Pseudorobillarda, an Endophyte from Thuja occidentalis in Canada, and a Key to the Species. Mycologia, 2003, 95, 955.	0.8	1
85	A new species of Pseudorobillarda, an endophyte from Thuja occidentalis in Canada, and a key to the species. Mycologia, 2003, 95, 955-958.	0.8	9
86	First Report of Root Rot on Asparagus Caused by Phytophthora megasperma in Canada. Plant Disease, 2003, 87, 447-447.	0.7	2
87	A new species of Pseudorobillarda, an endophyte from Thuja occidentalis in Canada, and a key to the species. Mycologia, 2003, 95, 955-8.	0.8	2
88	Development of a selective myclobutanil agar (MBA) medium for the isolation of Fusarium species from asparagus fields. Canadian Journal of Microbiology, 2002, 48, 841-847.	0.8	26
89	Arbuscular mycorrhiza on root-organ cultures. Canadian Journal of Botany, 2002, 80, 1-20.	1.2	231
90	Differential and systemic alteration of defence-related gene transcript levels in mycorrhizal bean plants infected with Rhizoctonia solani. Canadian Journal of Botany, 2002, 80, 305-315.	1.2	38

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91	Copper Release from Chemical Root-Control Baskets in Hardwood Tree Production. Journal of Environmental Quality, 2002, 31, 910.	1.0	1
92	Copper Release from Chemical Rootâ€Control Baskets in Hardwood Tree Production. Journal of Environmental Quality, 2002, 31, 910-916.	1.0	1
93	Suitability of Glomus intraradices in vitro produced spores and root segment inoculum for the establishment of a mycorrhizosphere in an experimental microcosm. Canadian Journal of Botany, 2001, 79, 879-885.	1.2	1
94	Leptomelanconium abietis sp. nov. on needles of Abies balsamea. Mycologia, 2001, 93, 212-215.	0.8	1
95	Leptomelanconium abietis sp. nov. on Needles of Abies balsamea. Mycologia, 2001, 93, 212.	0.8	2
96	First Report of Cryptocline taxicola Infecting Pacific Yew (Taxus brevifolia) in Eastern North America. Plant Disease, 2001, 85, 922-922.	0.7	7
97	Suitability of <i>Glomus intraradices</i> in vitro produced spores and root segment inoculum for the establishment of a mycorrhizosphere in an experimental microcosm. Canadian Journal of Botany, 2001, 79, 879-885.	1.2	4
98	Susceptibility of cones and seeds to fungal infection in a pine (Pinus spp.) collection. Forest Pathology, 2000, 30, 305-320.	0.5	35
99	Phialocephala victorinii sp. nov., Endophyte of Cypripedium parviflorum. Mycologia, 2000, 92, 571.	0.8	4
100	Viability Testing of Orchid Seed and the Promotion of Colouration and Germination. Annals of Botany, 2000, 86, 79-86.	1.4	142
101	A new species Polynema muirii on Fagus grandifolia. Mycologia, 1999, 91, 136-140.	0.8	3
102	A New Species Polynema muirii on Fagus grandifolia. Mycologia, 1999, 91, 136.	0.8	1
103	Direct interaction between the arbuscular mycorrhizal fungusGlomus intraradicesand different rhizosphere microorganisms. New Phytologist, 1999, 141, 525-533.	3.5	264
104	Colonization potential of in vitro-produced arbuscular mycorrhizal fungus spores compared with a root-segment inoculum from open pot culture. Mycorrhiza, 1999, 8, 335-338.	1.3	23
105	First Report of Fusarium solani Canker and Wilt Symptoms on Red Oak (Quercus rubra) in Quebec, Canada. Plant Disease, 1999, 83, 78-78.	0.7	8
106	First Report of Ceratocystis fimbriata Infecting Balsam Poplar (Populus balsamifera). Plant Disease, 1999, 83, 879-879.	0.7	3
107	Diarimella laurentidae anam.: sp.nov. from Quebec. Canadian Journal of Botany, 1998, 76, 2037-2041.	1.2	2
108	New hosts for<i>Choanatiara lunata</i>. Canadian Journal of Plant Pathology, 1998, 20, 319-323.	0.8	1

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109	First Report of Naemacyclus fimbriatus Infecting Pitch Pine (Pinus rigida). Plant Disease, 1998, 82, 959-959.	0.7	1
110	<i>Diarimella laurentidae</i> anam.: sp.nov. from Quebec. Canadian Journal of Botany, 1998, 76, 2037-2041.	1.2	1
111	Inhibition of <i>Fusarium oxysporum</i> f-sp. <i>dianthi</i> in the non-VAM species <i>Dianthus caryophyllus</i> by co-culture with <i>Tagetes patula</i> companion plants colonized by <i>Glomus intraradices</i>. Canadian Journal of Botany, 1997, 75, 998-1005.	1.2	52
112	Enhanced hyphal growth and spore production of the arbuscular mycorrhizal fungus Glomus intraradices in an in vitro system in the absence of host roots. Mycological Research, 1996, 100, 328-332.	2.5	409
113	Altered growth of Fusarium oxysporum f. sp. chrysanthemi in an in vitro dual culture system with the vesicular arbuscular mycorrhizal fungus Glomus intraradices growing on Daucus carota transformed roots. Mycorrhiza, 1995, 5, 431-438.	1.3	77
114	Allometry in the histogenesis of <i>Prunus</i> fruits (Rosaceae). Canadian Journal of Botany, 1995, 73, 299-306.	1.2	1
115	Altered growth of Fusarium oxysporum f.sp. chrysanthemi in an in vitro dual culture system with the vesicular arbuscular mycorrhizal fungus Glomus intraradices growing on Daucus carota transformed roots. Mycorrhiza, 1995, 5, 431-438.	1.3	66
116	Inhibition of<i>Pythium ultimum</i>in roots and growth substrate of mycorrhizal<i>Tagetes patula</i>colonized with<i>Glomus intraradices</i>. Canadian Journal of Plant Pathology, 1994, 16, 187-194.	0.8	59
117	Resistance Responses of Mycorrhizal Ri T-DNA-Transformed Carrot Roots to Infection byFusarium oxysporumf. sp.chrysanthemi. Phytopathology, 1994, 84, 958.	1.1	96
118	Ã‰valuation au QuÃ©bec dâ€™un modÃ¨le de prÃ©diction de la fin de la pÃ©riode annuelle dâ€™Ã©jection des ascospores du Venturia inaequalis.. Phytoprotection, 1990, 71, 17-23.	0.3	7
119	Influence of High Salt Levels on the Germination and Growth of Five Potentially Utilizable Plants for Median Turfing in Northern Climates. Journal of Environmental Horticulture, 1988, 6, 118-121.	0.3	4
120	Sustainable agriculture and the multigenomic model: how advances in the genetics of arbuscular mycorrhizal fungi will change soil management practices.. , 0, , 269-287.		3
121	PremiÃ¨re mention du Marssonina salicicola sur des saules pleureurs au QuÃ©bec. Phytoprotection, 0, 79, 87-91.	0.3	1
122	Un modÃ¨le dâ€™estimation de lâ€™Ã©tat dâ€™avancement de la pÃ©riode dâ€™infection primaire par le Venturia inaequalis en verger de pommiers. Phytoprotection, 0, 71, 73-84.	0.3	1