

Caravaca Ballester

List of Publications by Year in descending order

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97
papers

5,798
citations

61984

43
h-index

79698

73
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docs citations

97
times ranked

5542
citing authors

#	ARTICLE	IF	CITATIONS
1	Induction of antioxidant enzymes is involved in the greater effectiveness of a PGPR versus AM fungi with respect to increasing the tolerance of lettuce to severe salt stress. <i>Environmental and Experimental Botany</i> , 2009, 65, 245-252.	4.2	328
2	Plant-growth-promoting rhizobacteria and arbuscular mycorrhizal fungi modify alleviation biochemical mechanisms in water-stressed plants. <i>Functional Plant Biology</i> , 2008, 35, 141.	2.1	294
3	Agricultural use of digestate for horticultural crop production and improvement of soil properties. <i>European Journal of Agronomy</i> , 2012, 43, 119-128.	4.1	250
4	Soil microbial biomass and activity under different agricultural management systems in a semiarid Mediterranean agroecosystem. <i>Soil and Tillage Research</i> , 2010, 109, 110-115.	5.6	198
5	Land use in relation to soil chemical and biochemical properties in a semiarid Mediterranean environment. <i>Soil and Tillage Research</i> , 2002, 68, 23-30.	5.6	181
6	No-tillage, crop residue additions, and legume cover cropping effects on soil quality characteristics under maize in Patzcuaro watershed (Mexico). <i>Soil and Tillage Research</i> , 2003, 72, 65-73.	5.6	175
7	Contribution of <i>Pseudomonas mendocina</i> and <i>Glomus intraradices</i> to aggregate stabilization and promotion of biological fertility in rhizosphere soil of lettuce plants under field conditions. <i>Soil Use and Management</i> , 2006, 22, 298-304.	4.9	145
8	Establishment of shrub species in a degraded semiarid site after inoculation with native or allochthonous arbuscular mycorrhizal fungi. <i>Applied Soil Ecology</i> , 2003, 22, 103-111.	4.3	143
9	Interactions between a plant growth-promoting rhizobacterium, an AM fungus and a phosphate-solubilising fungus in the rhizosphere of <i>Lactuca sativa</i> . <i>Applied Soil Ecology</i> , 2007, 35, 480-487.	4.3	143
10	An AM fungus and a PGPR intensify the adverse effects of salinity on the stability of rhizosphere soil aggregates of <i>Lactuca sativa</i> . <i>Soil Biology and Biochemistry</i> , 2010, 42, 429-434.	8.8	137
11	Changes in soil enzyme activity, fertility, aggregation and C sequestration mediated by conservation tillage practices and water regime in a maize field. <i>Applied Soil Ecology</i> , 2005, 30, 11-20.	4.3	136
12	Soil enzyme activities suggest advantages of conservation tillage practices in sorghum cultivation under subtropical conditions. <i>Geoderma</i> , 2005, 129, 178-185.	5.1	135
13	Soil structural stability and erosion rates influenced by agricultural management practices in a semi-arid Mediterranean agroecosystem. <i>Soil Use and Management</i> , 2012, 28, 571-579.	4.9	133
14	Antioxidant enzyme activities in shoots from three mycorrhizal shrub species afforested in a degraded semi-arid soil. <i>Physiologia Plantarum</i> , 2003, 118, 562-570.	5.2	115
15	Use of microbiological indicators for evaluating success in soil restoration after revegetation of a mining area under subtropical conditions. <i>Applied Soil Ecology</i> , 2005, 30, 3-10.	4.3	111
16	Plant type mediates rhizospheric microbial activities and soil aggregation in a semiarid Mediterranean salt marsh. <i>Geoderma</i> , 2005, 124, 375-382.	5.1	110
17	Improvement of rhizosphere aggregate stability of afforested semiarid plant species subjected to mycorrhizal inoculation and compost addition. <i>Geoderma</i> , 2002, 108, 133-144.	5.1	108
18	Assessing the effectiveness of mycorrhizal inoculation and soil compost addition for enhancing reforestation with <i>Olea europaea</i> subsp. <i>sylvestris</i> through changes in soil biological and physical parameters. <i>Applied Soil Ecology</i> , 2002, 20, 107-118.	4.3	106

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19	Aggregate stability changes after organic amendment and mycorrhizal inoculation in the afforestation of a semiarid site with <i>Pinus halepensis</i> . <i>Applied Soil Ecology</i> , 2002, 19, 199-208.	4.3	101
20	Re-establishment of <i>Retama sphaerocarpa</i> as a target species for reclamation of soil physical and biological properties in a semi-arid Mediterranean area. <i>Forest Ecology and Management</i> , 2003, 182, 49-58.	3.2	101
21	Organic matter, nutrient contents and cation exchange capacity in fine fractions from semiarid calcareous soils. <i>Geoderma</i> , 1999, 93, 161-176.	5.1	92
22	Differential modulation of host plant $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ by native and nonnative arbuscular mycorrhizal fungi in a semiarid environment. <i>New Phytologist</i> , 2006, 169, 379-387.	7.3	89
23	Soil sustainability indicators following conservation tillage practices under subtropical maize and bean crops. <i>Soil and Tillage Research</i> , 2007, 93, 273-282.	5.6	88
24	Poultry manure and banana waste are effective biofertilizer carriers for promoting plant growth and soil sustainability in banana crops. <i>Soil Biology and Biochemistry</i> , 2008, 40, 3092-3095.	8.8	84
25	Differential response of $\delta^{13}\text{C}$ and water use efficiency to arbuscular mycorrhizal infection in two aridland woody plant species. <i>Oecologia</i> , 2003, 135, 510-515.	2.0	83
26	The application of an organic amendment modifies the arbuscular mycorrhizal fungal communities colonizing native seedlings grown in a heavy-metal-polluted soil. <i>Soil Biology and Biochemistry</i> , 2011, 43, 1498-1508.	8.8	78
27	Aggregate stability and carbon characteristics of particle-size fractions in cultivated and forested soils of semiarid Spain. <i>Soil and Tillage Research</i> , 2004, 78, 83-90.	5.6	73
28	Involvement of antioxidant enzyme and nitrate reductase activities during water stress and recovery of mycorrhizal <i>Myrtus communis</i> and <i>Phillyrea angustifolia</i> plants. <i>Plant Science</i> , 2005, 169, 191-197.	3.6	72
29	The combination of compost addition and arbuscular mycorrhizal inoculation produced positive and synergistic effects on the phytomanagement of a semiarid mine tailing. <i>Science of the Total Environment</i> , 2015, 514, 42-48.	8.0	67
30	Arbuscular mycorrhizal fungi inoculation mediated changes in rhizosphere bacterial community structure while promoting revegetation in a semiarid ecosystem. <i>Science of the Total Environment</i> , 2017, 584-585, 838-848.	8.0	65
31	Effect of drought on the stability of rhizosphere soil aggregates of <i>Lactuca sativa</i> grown in a degraded soil inoculated with PGPR and AM fungi. <i>Applied Soil Ecology</i> , 2009, 42, 160-165.	4.3	64
32	Survival of inocula and native AM fungi species associated with shrubs in a degraded Mediterranean ecosystem. <i>Soil Biology and Biochemistry</i> , 2005, 37, 227-233.	8.8	63
33	Assessing changes in physical and biological properties in a soil contaminated by oil sludges under semiarid Mediterranean conditions. <i>Geoderma</i> , 2003, 117, 53-61.	5.1	62
34	Comparing the effectiveness of mycorrhizal inoculation and amendment with sugar beet, rock phosphate and <i>Aspergillus niger</i> to enhance field performance of the leguminous shrub <i>Dorycnium pentaphyllum</i> L.. <i>Applied Soil Ecology</i> , 2004, 25, 169-180.	4.3	60
35	Increased Diversity of Arbuscular Mycorrhizal Fungi in a Long-Term Field Experiment via Application of Organic Amendments to a Semiarid Degraded Soil. <i>Applied and Environmental Microbiology</i> , 2009, 75, 4254-4263.	3.1	57
36	Soil aggregate stability and organic matter in clay and fine silt fractions in urban refuse-amended semiarid soils. <i>Soil Science Society of America Journal</i> , 2001, 65, 1235-1238.	2.2	50

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37	Application of composted urban residue enhanced the performance of afforested shrub species in a degraded semiarid land. <i>Bioresource Technology</i> , 2003, 90, 65-70.	9.6	50
38	Changes in rhizosphere microbial activity mediated by native or allochthonous AM fungi in the reafforestation of a Mediterranean degraded environment. <i>Biology and Fertility of Soils</i> , 2005, 41, 59-68.	4.3	50
39	Organic Fertilization in Traditional Mediterranean Grapevine Orchards Mediates Changes in Soil Microbial Community Structure and Enhances Soil Fertility. <i>Land Degradation and Development</i> , 2016, 27, 1622-1628.	3.9	50
40	Striking alterations in the soil bacterial community structure and functioning of the biological N cycle induced by <i>Pennisetum setaceum</i> invasion in a semiarid environment. <i>Soil Biology and Biochemistry</i> , 2017, 109, 176-187.	8.8	50
41	Estimation by PLFA of Microbial Community Structure Associated with the Rhizosphere of <i>Lygeum spartum</i> and <i>Piptatherum miliaceum</i> Growing in Semiarid Mine Tailings. <i>Microbial Ecology</i> , 2010, 60, 265-271.	2.8	49
42	Establishment of Two Ectomycorrhizal Shrub Species in a Semiarid Site after in Situ Amendment with Sugar Beet, Rock Phosphate, and <i>Aspergillus niger</i> . <i>Microbial Ecology</i> , 2005, 49, 73-82.	2.8	48
43	Superoxide dismutase and total peroxidase activities in relation to drought recovery performance of mycorrhizal shrub seedlings grown in an amended semiarid soil. <i>Journal of Plant Physiology</i> , 2008, 165, 715-722.	3.5	46
44	Synergistic influence of an arbuscular mycorrhizal fungus and organic amendment on <i>Pistacia lentiscus</i> L. seedlings afforested in a degraded semiarid soil. <i>Soil Biology and Biochemistry</i> , 2002, 34, 1139-1145.	8.8	45
45	Differential Effects of <i>Pseudomonas mendocina</i> and <i>Glomus intraradices</i> on Lettuce Plants Physiological Response and Aquaporin PIP2 Gene Expression Under Elevated Atmospheric CO ₂ and Drought. <i>Microbial Ecology</i> , 2009, 58, 942-951.	2.8	44
46	Formation of stable aggregates in rhizosphere soil of <i>Juniperus oxycedrus</i> : Effect of AM fungi and organic amendments. <i>Applied Soil Ecology</i> , 2006, 33, 30-38.	4.3	41
47	Elevated CO ₂ increases the effect of an arbuscular mycorrhizal fungus and a plant-growth-promoting rhizobacterium on structural stability of a semiarid agricultural soil under drought conditions. <i>Soil Biology and Biochemistry</i> , 2009, 41, 1710-1716.	8.8	41
48	Improvement of soil characteristics and growth of <i>Dorycnium pentaphyllum</i> by amendment with agrowastes and inoculation with AM fungi and/or the yeast <i>Yarrowia lipolytica</i> . <i>Chemosphere</i> , 2004, 56, 449-456.	8.2	40
49	Inoculation with arbuscular mycorrhizal fungi and addition of composted olive-mill waste enhance plant establishment and soil properties in the regeneration of a heavy metal-polluted environment. <i>Environmental Science and Pollution Research</i> , 2014, 21, 7403-7412.	5.3	40
50	Effects of Water Stress, Organic Amendment and Mycorrhizal Inoculation on Soil Microbial Community Structure and Activity During the Establishment of Two Heavy Metal-Tolerant Native Plant Species. <i>Microbial Ecology</i> , 2012, 63, 794-803.	2.8	39
51	Unraveling the role of hyphal networks from arbuscular mycorrhizal fungi in aggregate stabilization of semiarid soils with different textures and carbonate contents. <i>Plant and Soil</i> , 2017, 410, 273-281.	3.7	39
52	Photosynthetic and Transpiration Rates of <i>Olea europaea</i> subsp. <i>sylvestris</i> and <i>Rhamnus lycioides</i> as Affected by Water Deficit and Mycorrhiza. <i>Biologia Plantarum</i> , 2003, 46, 637-639.	1.9	37
53	Effect of Arbuscular Mycorrhizae and Induced Drought Stress on Antioxidant Enzyme and Nitrate Reductase Activities in <i>Juniperus oxycedrus</i> L. Grown in a Composted Sewage Sludge-amended Semi-arid Soil. <i>Plant and Soil</i> , 2006, 279, 209-218.	3.7	37
54	Microbial processes in the rhizosphere soil of a heavy metals-contaminated Mediterranean salt marsh: A facilitating role of AM fungi. <i>Chemosphere</i> , 2006, 64, 104-111.	8.2	30

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55	Effect of Mycorrhizal Inoculation on Nutrient Acquisition, Gas Exchange, and Nitrate Reductase Activity of Two Mediterranean-Autochthonous Shrub Species Under Drought Stress. <i>Journal of Plant Nutrition</i> , 2004, 27, 57-74.	1.9	29
56	Alteration in Rhizosphere Soil Properties of Afforested <i>Rhamnus lycioides</i> Seedlings in Short-Term Response to Mycorrhizal Inoculation with <i>Glomus intraradices</i> and Organic Amendment. <i>Environmental Management</i> , 2003, 31, 412-420.	2.7	28
57	Effects of elevated CO ₂ , water stress, and inoculation with <i>Glomus intraradices</i> or <i>Pseudomonas mendocina</i> on lettuce dry matter and rhizosphere microbial and functional diversity under growth chamber conditions. <i>Journal of Soils and Sediments</i> , 2010, 10, 1585-1597.	3.0	28
58	Comparative effects of native filamentous and arbuscular mycorrhizal fungi in the establishment of an autochthonous, leguminous shrub growing in a metal-contaminated soil. <i>Science of the Total Environment</i> , 2011, 409, 1205-1209.	8.0	28
59	Prolonged irrigation with municipal wastewater promotes a persistent and active soil microbial community in a semiarid agroecosystem. <i>Agricultural Water Management</i> , 2015, 149, 115-122.	5.6	27
60	Stability of desiccated rhizosphere soil aggregates of mycorrhizal <i>Juniperus oxycedrus</i> grown in a desertified soil amended with a composted organic residue. <i>Soil Biology and Biochemistry</i> , 2006, 38, 2722-2730.	8.8	26
61	Suitability of the microbial community composition and function in a semiarid mine soil for assessing phytomanagement practices based on mycorrhizal inoculation and amendment addition. <i>Journal of Environmental Management</i> , 2016, 169, 236-246.	7.8	26
62	The invader <i>Carpobrotus edulis</i> promotes a specific rhizosphere microbiome across globally distributed coastal ecosystems. <i>Science of the Total Environment</i> , 2020, 719, 137347.	8.0	26
63	Medium-term effects of mycorrhizal inoculation and composted municipal waste addition on the establishment of two Mediterranean shrub species under semiarid field conditions. <i>Agriculture, Ecosystems and Environment</i> , 2003, 97, 95-105.	5.3	25
64	Effects of mycorrhizal inoculation of shrubs from Mediterranean ecosystems and composted residue application on transplant performance and mycorrhizal developments in a desertified soil. <i>Biology and Fertility of Soils</i> , 2002, 36, 170-175.	4.3	24
65	Effect of <i>Eisenia foetida</i> earthworms on mineralization kinetics, microbial biomass, enzyme activities, respiration and labile C fractions of three soils treated with a composted organic residue. <i>Biology and Fertility of Soils</i> , 2003, 38, 45-51.	4.3	24
66	Changes in biological activity of a degraded Mediterranean soil after using microbially-treated dry olive cake as a biosolid amendment and arbuscular mycorrhizal fungi. <i>European Journal of Soil Biology</i> , 2008, 44, 347-354.	3.2	24
67	Advantages of inoculation with immobilized rhizobacteria versus amendment with olive-mill waste in the afforestation of a semiarid area with <i>Pinus halepensis</i> Mill. <i>Ecological Engineering</i> , 2014, 73, 1-8.	3.6	22
68	Use of Nitrate Reductase Activity for Assessing Effectiveness of Mycorrhizal Symbiosis in <i>Dorycnium pentaphyllum</i> Under Induced Water Deficit. <i>Communications in Soil Science and Plant Analysis</i> , 2003, 34, 2291-2302.	1.4	21
69	A microcosm approach to assessing the effects of earthworm inoculation and oat cover cropping on CO ₂ fluxes and biological properties in an amended semiarid soil. <i>Chemosphere</i> , 2005, 59, 1625-1631.	8.2	21
70	Microbial activities and arbuscular mycorrhizal fungi colonization in the rhizosphere of the salt marsh plant <i>Inula crithmoides</i> L. along a spatial salinity gradient. <i>Wetlands</i> , 2005, 25, 350-355.	1.5	20
71	Arbuscular mycorrhizal fungi and their associated microbial community modulated by Collembola grazers in host plant free substrate. <i>Soil Biology and Biochemistry</i> , 2014, 69, 25-33.	8.8	20
72	Changes in Physical and Biological Soil Quality Indicators in a Tropical Crop System (Havana, Cuba) in Response to Different Agroecological Management Practices. <i>Environmental Management</i> , 2003, 32, 639-645.	2.7	19

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73	The Role of Relict Vegetation in Maintaining Physical, Chemical, and Biological Properties in an Abandoned Stipa -Grass Agroecosystem. <i>Arid Land Research and Management</i> , 2003, 17, 103-111.	1.6	19
74	Establishment of <i>Retama sphaerocarpa</i> L. seedlings on a degraded semiarid soil as influenced by mycorrhizal inoculation and sewage-sludge amendment. <i>Journal of Plant Nutrition and Soil Science</i> , 2004, 167, 637-644.	1.9	19
75	Soil acidity determines the effectiveness of an organic amendment and a native bacterium for increasing soil stabilisation in semiarid mine tailings. <i>Chemosphere</i> , 2009, 74, 239-244.	8.2	18
76	Selection of Plant Species and Organic Amendment Combinations to Assure Plant Establishment and Soil Microbial Function Recovery in the Phytostabilization of a Metal-Contaminated Soil. <i>Water, Air, and Soil Pollution</i> , 2014, 225, 1.	2.4	18
77	Synergists and antagonists in the rhizosphere modulate microbial communities and growth of <i>Quercus robur</i> L.. <i>Soil Biology and Biochemistry</i> , 2015, 82, 65-73.	8.8	18
78	Spatial Shifts in Soil Microbial Activity and Degradation of Pasture Cover Caused by Prolonged Exposure to Cement Dust. <i>Land Degradation and Development</i> , 2017, 28, 1329-1335.	3.9	17
79	AM fungi inoculation and addition of microbially-treated dry olive cake-enhanced afforestation of a desertified Mediterranean site. <i>Land Degradation and Development</i> , 2004, 15, 153-161.	3.9	16
80	Assessment of the potential role of <i>Streptomyces</i> strains in the revegetation of semiarid sites: the relative incidence of strain origin and plantation site on plant performance and soil quality indicators. <i>Biology and Fertility of Soils</i> , 2016, 52, 53-64.	4.3	15
81	Improvements in soil quality and performance of mycorrhizal <i>Cistus albidus</i> L. seedlings resulting from addition of microbially treated sugar beet residue to a degraded semiarid Mediterranean soil. <i>Soil Use and Management</i> , 2003, 19, 277-283.	4.9	15
82	Impact of DOM from composted <i>Alperujo</i> on soil structure, AM fungi, microbial activity and growth of <i>Medicago sativa</i> . <i>Waste Management</i> , 2008, 28, 1423-1431.	7.4	13
83	Nutrient acquisition and nitrate reductase activity of mycorrhizal <i>Retama sphaerocarpa</i> L. seedlings afforested in an amended semiarid soil under two water regimes. <i>Soil Use and Management</i> , 2005, 21, 10-16.	4.9	13
84	Arbuscular mycorrhizal fungal assemblages in biological crusts from a Neotropical savanna are not related to the dominant perennial <i>Trachypogon</i> . <i>Science of the Total Environment</i> , 2017, 575, 1203-1210.	8.0	12
85	The unspecificity of the relationships between the invasive <i>Pennisetum setaceum</i> and mycorrhizal fungi may provide advantages during its establishment at semiarid Mediterranean sites. <i>Science of the Total Environment</i> , 2018, 630, 1464-1471.	8.0	12
86	Salvage logging alters microbial community structure and functioning after a wildfire in a Mediterranean forest. <i>Applied Soil Ecology</i> , 2021, 168, 104130.	4.3	11
87	The invasion of semiarid Mediterranean sites by <i>Nicotiana glauca</i> mediates temporary changes in mycorrhizal associations and a permanent decrease in rhizosphere activity. <i>Plant and Soil</i> , 2020, 450, 217-229.	3.7	10
88	Drug Action of Ritodrine on the Sarcoplasmic-Reticulum Ca ²⁺ -ATPase from Skeletal Muscle. <i>Archives of Biochemistry and Biophysics</i> , 1995, 318, 97-104.	3.0	9
89	Addition of microbially-treated sugar beet residue and a native bacterium increases structural stability in heavy metal-contaminated Mediterranean soils. <i>Science of the Total Environment</i> , 2009, 407, 5448-5454.	8.0	9
90	Improvements in soil quality and performance of mycorrhizal <i>Cistus albidus</i> L. seedlings resulting from addition of microbially treated sugar beet residue to a degraded semiarid Mediterranean soil. <i>Soil Use and Management</i> , 2003, 19, 277-283.	4.9	8

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91	Invasive <i>Nicotiana glauca</i> shifts the soil microbial community composition and functioning of harsh and disturbed semiarid Mediterranean environments. <i>Biological Invasions</i> , 2020, 22, 2923-2940.	2.4	8
92	Interaction between AM fungi and a liquid organic amendment with respect to enhancement of the performance of the leguminous shrub <i>Retama sphaerocarpa</i> . <i>Biology and Fertility of Soils</i> , 2006, 43, 30-38.	4.3	7
93	Elevated CO_2 affects the rhizosphere microbial community and the growth of two invader plant species differently in semiarid Mediterranean soils. <i>Land Degradation and Development</i> , 2022, 33, 117-132.	3.9	6
94	Nutrient acquisition and nitrate reductase activity of mycorrhizal <i>Retama sphaerocarpa</i> L. seedlings afforested in an amended semiarid soil under two water regimes. <i>Soil Use and Management</i> , 2005, 21, 10-16.	4.9	5
95	Elevated functional versatility of the soil microbial community associated with the invader <i>Carpobrotus edulis</i> across a broad geographical scale. <i>Science of the Total Environment</i> , 2022, 813, 152627.	8.0	5
96	Growth and nitrate reductase activity in <i>Juniperus oxycedrus</i> subjected to organic amendments and inoculation with arbuscular mycorrhizae. <i>Journal of Plant Nutrition and Soil Science</i> , 2006, 169, 501-505.	1.9	3
97	Aggregate stability and carbon characteristics of particle-size fractions in cultivated and forested soils of semiarid Spain. <i>Soil and Tillage Research</i> , 2004, 78, 83-90.	5.6	1