Xavier Raynaud

List of Publications by Year
in descending order

39 papers	1,657 citations	361413 20 h-index	315739 38 g-index
40 all docs	40 docs citations	40 times ranked	2525 citing authors

#	Article	IF	Citations
1	Spatial Ecology of Bacteria at the Microscale in Soil. PLoS ONE, 2014, 9, e87217.	2.5	312
2	Plant Preference for Ammonium versus Nitrate: A Neglected Determinant of Ecosystem Functioning?. American Naturalist, 2012, 180, 60-69.	2.1	155
3	Grass populations control nitrification in savanna soils. Functional Ecology, 2004, 18, 605-611.	3.6	105
4	Plants May Alter Competition by Modifying Nutrient Bioavailability in Rhizosphere: A Modeling Approach. American Naturalist, 2008, 171, 44-58.	2.1	95
5	Trace element concentrations along a gradient of urban pressure in forest and lawn soils of the Paris region (France). Science of the Total Environment, 2017, 598, 938-948.	8.0	78
6	The ecology of heterogeneity: soil bacterial communities and C dynamics. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190249.	4.0	76
7	SOIL CHARACTERISTICS PLAY A KEY ROLE IN MODELING NUTRIENT COMPETITION IN PLANT COMMUNITIES. Ecology, 2004, 85, 2200-2214.	3.2	71
8	Negative priming effect on mineralization in a soil free of vegetation for 80 years. European Journal of Soil Science, 2010, 61, 384-391.	3.9	70
9	Soil microbial loop and nutrient uptake by plants: a test using a coupled C:N model of plantâ€"microbial interactions. Plant and Soil, 2006, 287, 95-116.	3.7	58
10	Soil properties are key determinants for the development of exudate gradients in a rhizosphere simulation model. Soil Biology and Biochemistry, 2010, 42, 210-219.	8.8	55
11	Regulation of soil organic C mineralisation at the pore scale. FEMS Microbiology Ecology, 2013, 86, 26-35.	2.7	54
12	Modeling the effect of soil meso- and macropores topology on the biodegradation of a soluble carbon substrate. Advances in Water Resources, 2015, 83, 123-136.	3.8	54
13	Litter inputs and plant interactions affect nectar sugar content. Journal of Ecology, 2011, 99, 828-837.	4.0	41
14	Multifunctionality is affected by interactions between green roof plant species, substrate depth, and substrate type. Ecology and Evolution, 2017, 7, 2357-2369.	1.9	41
15	Fertilized graminoids intensify negative drought effects on grassland productivity. Global Change Biology, 2021, 27, 2441-2457.	9.5	39
16	Contrasting effects of grasses and trees on microbial N-cycling in an African humid savanna. Soil Biology and Biochemistry, 2018, 117, 153-163.	8.8	38
17	Recognizing Patterns: Spatial Analysis of Observed Microbial Colonization on Root Surfaces. Frontiers in Environmental Science, 2018, 6, .	3.3	38
18	Unravelling the effects of plant species diversity and aboveground litter input on soil bacterial communities. Geoderma, 2018, 317, 1-7.	5.1	37

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19	Temperature and soil management effects on carbon fluxes and priming effect intensity. Soil Biology and Biochemistry, 2021, 153, 108103.	8.8	33
20	Soil properties as key predictors of global grassland production: Have we overlooked micronutrients?. Ecology Letters, 2021, 24, 2713-2725.	6.4	28
21	Ecosystem engineering, environmental decay and environmental states of landscapes. Oikos, 2013, 122, 591-600.	2.7	22
22	Symmetry of belowground competition in a spatially explicit model of nutrient competition. Ecological Modelling, 2005, 189, 447-453.	2.5	21
23	Role of substrate properties in the provision of multifunctional green roof ecosystem services. Applied Soil Ecology, 2018, 123, 464-468.	4.3	20
24	Modelling facilitation or competition within a root system: importance of the overlap of root depletion and accumulation zones. Plant and Soil, 2017, 419, 97-111.	3.7	17
25	Comparison of Environmental and Culture-Derived Bacterial Communities through 16S Metabarcoding: A Powerful Tool to Assess Media Selectivity and Detect Rare Taxa. Microorganisms, 2020, 8, 1129.	3.6	14
26	Evolution of nutrient acquisition: when space matters. Functional Ecology, 2016, 30, 283-294.	3.6	10
27	Broader phenology of pollinator activity and higher plant reproductive success in an urban habitat compared to a rural one. Ecology and Evolution, 2020, 10, 11607-11621.	1.9	10
28	Scenario modelling of carbon mineralization in <scp>3D</scp> soil architecture at the microscale: Toward an accessibility coefficient of organic matter for bacteria. European Journal of Soil Science, 2022, 73, .	3.9	10
29	Plant-pollinator interactions on green roofs are mediated by substrate characteristics and plant community composition. Acta Oecologica, 2020, 105, 103559.	1.1	9
30	Competition with wind-pollinated plant species alters floral traits of insect-pollinated plant species. Scientific Reports, 2015, 5, 13345.	3.3	8
31	Explore less to control more: why and when should plants limit the horizontal exploration of soil by their roots?. Oikos, 2016, 125, 1110-1120.	2.7	8
32	Effects of Mineral Nitrogen Partitioning on Treeâ€“Grass Coexistence in West African Savannas. Ecosystems, 2019, 22, 1676-1690.	3.4	6
33	Below-ground competition alters attractiveness of an insect-pollinated plant to pollinators. AoB PLANTS, 2020, 12, plaa022.	2.3	6
34	Impacts of nutrient addition on soil carbon and nitrogen stoichiometry and stability in globally-distributed grasslands. Biogeochemistry, 2022, 159, 353-370.	3.5	5
35	Topsoil characteristics of forests and lawns along an urbanâ€“rural gradient in the Paris region (France). Soil Use and Management, 2021, 37, 749-761.	4.9	4
36	Spatial heterogeneity in nitrification and soil exploration by trees favour sourceâ€“sink dynamics in a humid savanna: A modelling approach. Functional Ecology, 2021, 35, 976-988.	3.6	4

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37	Does competition with windâ€pollinated species alter <i><scp>E</scp>chium plantagineum</i>'s attractiveness to a common pollinator <i><scp>B</scp>ombus terrestris</i>?. Ecological Entomology, 2017, 42, 617-628.	2.2	3
38	Modeling the inter-individual variability of single-stemmed plant development. , 2016, , .		1
39	Modeling the biomass allocation of tree resprout in a fire-prone savanna. Ecological Modelling, 2021, 448, 109527.	2.5	1