Catherine Roumet

List of Publications by Year
in descending order

60	14,834	76326	133252
papers	citations	40 h-index	59 g-index

63	63	63	13624
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dissecting fine root diameter distribution at the community level captures root morphological diversity. Oikos, 2023, 2023, .	2.7	3
2	Vegetation creates microenvironments that influence soil microbial activity and functional diversity along an elevation gradient. Soil Biology and Biochemistry, 2022, 165, 108485.	8.8	20
3	Root traits as drivers of plant and ecosystem functioning: current understanding, pitfalls and future research needs. New Phytologist, 2021, 232, 1123-1158.	7.3	277
4	Patterns in intraspecific variation in root traits are speciesâ€specific along an elevation gradient. Functional Ecology, 2021, 35, 342-356.	3.6	68
5	Global root traits (GRooT) database. Global Ecology and Biogeography, 2021, 30, 25-37.	5.8	90
6	Shifts in soil and plant functional diversity along an altitudinal gradient in the French Alps. BMC Research Notes, 2021, 14, 54.	1.4	11
7	Root traits explain plant species distributions along climatic gradients yet challenge the nature of ecological trade-offs. Nature Ecology and Evolution, 2021, 5, 1123-1134.	7.8	62
8	Aboveground-trait variations in 11 (sub)alpine plants along a 1000-m elevation gradient in tropical Mexico. Alpine Botany, 2021, 131, 187.	2.4	13
9	An integrated framework of plant form and function: the belowground perspective. New Phytologist, 2021, 232, 42-59.	7.3	153
10	Variation in biomass allocation and root functional parameters in response to fire history in Brazilian savannas. Journal of Ecology, 2021, 109, 4143-4157.	4.0	14
11	A starting guide to root ecology: strengthening ecological concepts and standardising root classification, sampling, processing and trait measurements. New Phytologist, 2021, 232, 973-1122.	7.3	216
12	Pathways to persistence: plant root traits alter carbon accumulation in different soil carbon pools. Plant and Soil, 2020, 452, 457-478.	3.7	19
13	The fungal collaboration gradient dominates the root economics space in plants. Science Advances, 2020, 6, .	10.3	377
14	Inter- and intra-specific trait shifts among sites differing in drought conditions at the north western edge of the Mediterranean Region. Flora: Morphology, Distribution, Functional Ecology of Plants, 2019, 254, 147-160.	1.2	22
15	Coping with drought: root trait variability within the perennial grass Dactylis glomerata captures a trade-off between dehydration avoidance and dehydration tolerance. Plant and Soil, 2019, 434, 327-342.	3.7	37
16	Root traits of herbaceous crops: Preâ€adaptation to cultivation or evolution under domestication?. Functional Ecology, 2019, 33, 273-285.	3.6	29
17	Two dimensions define the variation of fine root traits across plant communities under the joint influence of ecological succession and annual mowing. Journal of Ecology, 2018, 106, 2031-2042.	4.0	60
18	Frontiers in root ecology: recent advances and future challenges. Plant and Soil, 2018, 424, 1-9.	3.7	78

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19	The root of the matter: Linking root traits and soil organic matter stabilization processes. Soil Biology and Biochemistry, 2018, 120, 246-259.	8.8	219
20	Soil aggregate stability in Mediterranean and tropical agro-ecosystems: effect of plant roots and soil characteristics. Plant and Soil, 2018, 424, 303-317.	3.7	94
21	Leaf carbon and oxygen isotopes are coordinated with the leaf economics spectrum in Mediterranean rangeland species. Functional Ecology, 2018, 32, 612-625.	3.6	49
22	Species and root traits impact macroaggregation in the rhizospheric soil of a Mediterranean common garden experiment. Plant and Soil, 2018, 424, 289-302.	3.7	36
23	Decomposition rates of fine roots from three herbaceous perennial species: combined effect of root mixture composition and living plant community. Plant and Soil, 2017, 415, 359-372.	3.7	16
24	A global Fineâ€Root Ecology Database to address belowâ€ground challenges in plant ecology. New Phytologist, 2017, 215, 15-26.	7.3	250
25	Climate, soil and plant functional types as drivers of global fineâ€root trait variation. Journal of Ecology, 2017, 105, 1182-1196.	4.0	234
26	Increasing soil carbon storage: mechanisms, effects of agricultural practices and proxies. A review. Agronomy for Sustainable Development, 2017, 37, 1.	5.3	292
27	Root traits are related to plant waterâ€use among rangeland Mediterranean species. Functional Ecology, 2017, 31, 1700-1709.	3.6	71
28	Sampling roots to capture plant and soil functions. Functional Ecology, 2017, 31, 1506-1518.	3.6	150
29	A worldview of root traits: the influence of ancestry, growth form, climate and mycorrhizal association on the functional trait variation of fineâ€root tissues in seed plants. New Phytologist, 2017, 215, 1562-1573.	7.3	216
30	Does water shortage generate water stress? An ecohydrological approach across Mediterranean plant communities. Functional Ecology, 2017, 31, 1325-1335.	3.6	14
31	Root structureâ€“function relationships in 74 species: evidence of a root economics spectrum related to carbon economy. New Phytologist, 2016, 210, 815-826.	7.3	358
32	Root functional parameters predict fine root decomposability at the community level. Journal of Ecology, 2016, 104, 725-733.	4.0	75
33	Functional responses of Mediterranean plant communities to soil resource heterogeneity: a mycorrhizal traitâ€based approach. Journal of Vegetation Science, 2016, 27, 1243-1253.	2.2	25
34	Root biomass, turnover and net primary productivity of a coffee agroforestry system in Costa Rica: effects of soil depth, shade trees, distance to row and coffee age. Annals of Botany, 2016, 118, 833-851.	2.9	45
35	Mean root trait more than root trait diversity determines drought resilience in native and cultivated Mediterranean grass mixtures. Agriculture, Ecosystems and Environment, 2016, 231, 122-132.	5.3	51
36	Increase in soil aggregate stability along a Mediterranean successional gradient in severely eroded gully bed ecosystems: combined effects of soil, root traits and plant community characteristics. Plant and Soil, 2016, 398, 121-137.	3.7	144

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37	Root functional parameters along a landâ€use gradient: evidence of a communityâ€level economics spectrum. Journal of Ecology, 2015, 103, 361-373.	4.0	166
38	Measurement of fine root tissue density: a comparison of three methods reveals the potential of root dry matter content. Plant and Soil, 2014, 374, 299-313.	3.7	74
39	Are traitâ€based species rankings consistent across data sets and spatial scales?. Journal of Vegetation Science, 2014, 25, 235-247.	2.2	127
40	Tradeoffs between functional strategies for resource-use and drought-survival in Mediterranean rangeland species. Environmental and Experimental Botany, 2013, 87, 126-136.	4.2	91
41	Plant traits and decomposition: are the relationships for roots comparable to those for leaves?. Annals of Botany, 2012, 109, 463-472.	2.9	123
42	Evidence for a â€˜plant community economics spectrumâ€™ driven by nutrient and water limitations in a Mediterranean rangeland of southern France. Journal of Ecology, 2012, 100, 1315-1327.	4.0	154
43	Litter quality and decomposability of species from a Mediterranean succession depend on leaf traits but not on nitrogen supply. Annals of Botany, 2009, 104, 1151-1161.	2.9	92
44	Competition, traits and resource depletion in plant communities. Oecologia, 2009, 160, 747-755.	2.0	155
45	Allocation strategies and seed traits are hardly affected by nitrogen supply in 18 species differing in successional status. Perspectives in Plant Ecology, Evolution and Systematics, 2009, 11, 267-283.	2.7	23
46	Root traits and taxonomic affiliation of nine herbaceous species grown in glasshouse conditions. Plant and Soil, 2008, 312, 69-83.	3.7	45
47	Assessing the Effects of Land-use Change on Plant Traits, Communities and Ecosystem Functioning in Grasslands: A Standardized Methodology and Lessons from an Application to 11 European Sites. Annals of Botany, 2007, 99, 967-985.	2.9	453
48	Relating root structure and anatomy to whole-plant functioning in 14 herbaceous Mediterranean species. New Phytologist, 2007, 173, 313-321.	7.3	87
49	Plant Functional Types: Are We Getting Any Closer to the Holy Grail?. , 2007, , 149-164.		237
50	Suites of root traits differ between annual and perennial species growing in the field. New Phytologist, 2006, 170, 357-368.	7.3	273
51	Quantifying species composition in root mixtures using two methods: nearâ€infrared reflectance spectroscopy and plant wax markers. New Phytologist, 2006, 170, 631-638.	7.3	52
52	Specific Leaf Area and Dry Matter Content Estimate Thickness in Laminar Leaves. Annals of Botany, 2005, 96, 1129-1136.	2.9	374
53	The worldwide leaf economics spectrum. Nature, 2004, 428, 821-827.	27.8	6,489
54	PLANT FUNCTIONAL MARKERS CAPTURE ECOSYSTEM PROPERTIES DURING SECONDARY SUCCESSION. Ecology, 2004, 85, 2630-2637.	3.2	1,678

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55	Leaf life span, dynamics and construction cost of species from Mediterranean oldâ€fields differing in successional status. New Phytologist, 2003, 159, 213-228.	7.3	106
56	Intraspecific variability of phenolic concentrations and their responses to elevated CO2 in two mediterranean perennial grasses. Environmental and Experimental Botany, 2002, 47, 205-216.	4.2	28
57	Genotypic variation in the response of two perennial grass species to elevated carbon dioxide. Oecologia, 2002, 133, 342-348.	2.0	21
58	Short and long-term responses of whole-plant gas exchange to elevated CO2 in four herbaceous species. Environmental and Experimental Botany, 2000, 43, 155-169.	4.2	25
59	Leaf structure and chemical composition as affected by elevated CO2: genotypic responses of two perennial grasses. New Phytologist, 1999, 143, 73-81.	7.3	51
60	Inducible nitrate reductase of rice plants as a possible indicator for nitrification in water-logged paddy soils. Plant and Soil, 1989, 116, 197-206.	3.7	12