David Robinson

List of Publications by Year
in descending order

64 papers	5,618 citations	109321 35 h-index	114465 63 g-index
67 all docs	67 docs citations	67 times ranked	6248 citing authors

#	Article	IF	Citations
1	Î´15N as an integrator of the nitrogen cycle. Trends in Ecology and Evolution, 2001, 16, 153-162.	8.7	1,085
2	The responses of plants to nonâ€uniform supplies of nutrients. New Phytologist, 1994, 127, 635-674.	7.3	734
3	Are microorganisms more effective than plants at competing for nitrogen?. Trends in Plant Science, 2000, 5, 304-308.	8.8	621
4	Plant root proliferation in nitrogenâ€"rich patches confers competitive advantage. Proceedings of the Royal Society B: Biological Sciences, 1999, 266, 431-435.	2.6	293
5	Modelling Cereal Root Systems for Water and Nitrogen Capture: Towards an Economic Optimum. Annals of Botany, 2003, 91, 383-390.	2.9	213
6	Significant soil acidification across northern China's grasslands during 1980sâ€"2000s. Global Change Biology, 2012, 18, 2292-2300.	9.5	200
7	A theory for 15 N/ 14 N fractionation in nitrate-grown vascular plants. Planta, 1998, 205, 397-406.	3.2	123
8	Title is missing!. Plant and Soil, 2001, 232, 41-50.	3.7	105
9	Nutrient fluxes via litterfall and leaf litter decomposition vary across a gradient of soil nutrient supply in a lowland tropical rain forest. Plant and Soil, 2006, 288, 197-215.	3.7	94
10	Plant ecology's guilty little secret: understanding the dynamics of plant competition. Functional Ecology, 2013, 27, 918-929.	3.6	92
11	Effects of elevated atmospheric CO2 and soil water availability on root biomass, root length, and N, P and K uptake by wheat. New Phytologist, 1997, 135, 455-465.	7.3	91
12	Compensatory Changes in the Partitioning of Dry Matter in Relation to Nitrogen Uptake and Optimal Variations in Growth. Annals of Botany, 1986, 58, 841-848.	2.9	86
13	Implications of a large global root biomass for carbon sink estimates and for soil carbon dynamics. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 2753-2759.	2.6	84
14	Capture of nitrate from soil by wheat in relation to root length, nitrogen inflow and availability. New Phytologist, 1994, 128, 297-305.	7.3	79
15	A dynamic model of Rubisco turnover in cereal leaves. New Phytologist, 2006, 169, 493-504.	7.3	74
16	Uptake and assimilation of nitrogen from solutions containing multiple N sources. Plant, Cell and Environment, 2005, 28, 813-821.	5.7	73
17	Root-induced nitrogen mineralisation: A nitrogen balance model. Plant and Soil, 1992, 139, 253-263.	3.7	70
18	Scaling the depths: below-ground allocation in plants, forests and biomes. Functional Ecology, 2004, 18, 290-295.	3.6	70

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19	Relationships between root morphology and nitrogen availability in a recent theoretical model describing nitrogen uptake from soil.. Plant, Cell and Environment, 1983, 6, 641-647.	5.7	69
20	ROOT HAIRS AND PLANT GROWTH ATLOW NITROGEN AVAILABILITIES. New Phytologist, 1987, 107, 681-693.	7.3	67
21	Widespread decreases in topsoil inorganic carbon stocks across <scp>C</scp>hina's grasslands during 1980sâ€"2000s. Global Change Biology, 2012, 18, 3672-3680.	9.5	65
22	Limits to nutrient inflow rates in roots and root systems. Physiologia Plantarum, 1986, 68, 551-559.	5.2	64
23	Root-induced nitrogen mineralisation: A theoretical analysis. Plant and Soil, 1989, 117, 185-193.	3.7	63
24	Allocation of gross primary production in forest ecosystems: allometric constraints and environmental responses. New Phytologist, 2013, 200, 1176-1186.	7.3	60
25	Variation, co-ordination and compensation in root systems in relation to soil variability. Plant and Soil, 1996, 187, 57-66.	3.7	58
26	Priming of soil organic matter mineralisation is intrinsically insensitive to temperature. Soil Biology and Biochemistry, 2013, 66, 20-28.	8.8	58
27	Edaphic rather than climatic controls over ¹³C enrichment between soil and vegetation in alpine grasslands on the Tibetan Plateau. Functional Ecology, 2015, 29, 839-848.	3.6	55
28	Relationships between root morphology and nitrogen availability in a recent theoretical model describing nitrogen uptake from soil. Plant, Cell and Environment, 1983, 6, 641-647.	5.7	55
29	Large amounts of easily decomposable carbon stored in subtropical forest subsoil are associated with r-strategy-dominated soil microbes. Soil Biology and Biochemistry, 2016, 95, 233-242.	8.8	54
30	Dynamic trajectories of growth and nitrogen capture by competing plants. New Phytologist, 2012, 193, 948-958.	7.3	50
31	The magnitude and control of carbon transfer between plants linked by a common mycorrhizal network. Journal of Experimental Botany, 1999, 50, 9-13.	4.8	50
32	Calcium as an environmental variable. Plant, Cell and Environment, 1984, 7, 381-390.	5.7	47
33	A possible plant-mediated feedback between elevated CO2, denitrification and the enhanced greenhouse effect. Soil Biology and Biochemistry, 1998, 31, 43-53.	8.8	45
34	Effects of inorganic nitrogen application on the dynamics of the soil solution composition in the root zone of maize. Plant and Soil, 1996, 180, 1-9.	3.7	42
35	Rootâ€"shoot growth responses during interspecific competition quantified using allometric modelling. Annals of Botany, 2010, 106, 921-926.	2.9	41
36	Allometry of fine roots in forest ecosystems. Ecology Letters, 2019, 22, 322-331.	6.4	37

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37	Allometric constraints on, and tradeâ€offs in, belowground carbon allocation and their control of soil respiration across global forest ecosystems. Global Change Biology, 2014, 20, 1674-1684.	9.5	36
38	PCR profiling of ammonia-oxidizer communities in acidic soils subjected to nitrogen and sulphur deposition. FEMS Microbiology Ecology, 2007, 61, 305-316.	2.7	35
39	Vegetation and Soil 15N Natural Abundance in Alpine Grasslands on the Tibetan Plateau: Patterns and Implications. Ecosystems, 2013, 16, 1013-1024.	3.4	33
40	Accelerated soil carbon turnover under tree plantations limits soil carbon storage. Scientific Reports, 2016, 6, 19693.	3.3	33
41	Decomposition of 13C-labelled wheat root systems following growth at different CO2 concentrations. Soil Biology and Biochemistry, 2000, 32, 403-413.	8.8	32
42	Phosphorus availability and cortical senescence in cereal roots. Journal of Theoretical Biology, 1990, 145, 257-265.	1.7	31
43	Above-ground grazing affects floristic composition and modifies soil trophic interactions. Soil Biology and Biochemistry, 2002, 34, 1507-1512.	8.8	25
44	A New Hammer to Crack an Old Nut: Interspecific Competitive Resource Capture by Plants Is Regulated by Nutrient Supply, Not Climate. PLoS ONE, 2012, 7, e29413.	2.5	24
45	INVESTIGATIONS INTO THE AUKHORN PEAT MOUNDS, KEISS, CAITHNESS: POLLEN, PLANT MACROFOSSIL AND CHARCOAL ANALYSES. New Phytologist, 1987, 106, 185-200.	7.3	22
46	Title is missing!. Plant and Soil, 1998, 202, 263-270.	3.7	22
47	Dual-chamber measurements of Î´13C of soil-respired CO2 partitioned using a field-based three end-member model. Soil Biology and Biochemistry, 2012, 47, 106-115.	8.8	17
48	Root proliferation, nitrate inflow and their carbon costs during nitrogen capture by competing plants in patchy soil. , 2002, , 41-50.		17
49	Minimising methodological biases to improve the accuracy of partitioning soil respiration using natural abundance ¹³C. Rapid Communications in Mass Spectrometry, 2014, 28, 2341-2351.	1.5	15
50	Variation, co-ordination and compensation in root systems in relation to soil variability. , 1997, , 57-66.		15
51	Temporal and land use effects on soil bacterial community structure of the machair, an EU Habitats Directive Annex I low-input agricultural system. Applied Soil Ecology, 2014, 73, 116-123.	4.3	12
52	Directly quantifying multiple interacting influences on plant competition. Plant, Cell and Environment, 2021, 44, 1268-1277.	5.7	12
53	Understory fine roots are more ephemeral than those of trees in subtropical Chinese fir (Cunninghamia lanceolata (Lamb.) Hook) stands. Annals of Forest Science, 2016, 73, 657-667.	2.0	10
54	Plant growth chambers for the simultaneous control of soil and air temperatures, and of atmospheric carbon dioxide concentration. Global Change Biology, 1995, 1, 455-464.	9.5	9

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55	Tree speciesâ€™ influences on soil carbon dynamics revealed with natural abundance 13C techniques. Plant and Soil, 2016, 400, 285-296.	3.7	9
56	Clothing the Emperor: Dynamic Rootâ€"Shoot Allocation Trajectories in Relation to Whole-Plant Growth Rate and in Response to Temperature. Plants, 2019, 8, 212.	3.5	8
57	Optimal relations between root length and nutrient inflow rate in plant root systems. Journal of Theoretical Biology, 1988, 135, 359-370.	1.7	7
58	Sampling root-respired CO2 in-situ for 13C measurement. Plant and Soil, 2015, 393, 259-271.	3.7	4
59	Natural abundances of 15N and 13C indicating physiological responses in Petunia hybrida to infection by longidorid nematodes and nepoviruses. Nematology, 1999, 1, 315-320.	0.6	3
60	Constraints on Nutrient Dynamics in Terrestrial Vegetation. , 2016, , 254-291.		3
61	Introduction to the Special Feature on Mechanisms of Plant Competition. Functional Ecology, 2013, 27, 831-832.	3.6	2
62	Can the nutrient demand of a plant be sustained by an increase in local inflow rate?. Journal of Theoretical Biology, 1989, 138, 551-554.	1.7	1
63	On modelling Rubisco turnover: dynamics and applicability. New Phytologist, 2006, 170, 204-205.	7.3	1
64	Demographic quantification of carbon and nitrogen dynamics associated with root turnover in white clover. Plant, Cell and Environment, 2018, 41, 2045-2056.	5.7	1