Rien Aerts

List of Publications by Year
in descending order

64 papers	10,091 citations	70961 41 h-index	123241 61 g-index
65 all docs	65 docs citations	65 times ranked	11817 citing authors

#	Article	IF	Citations
1	Temperature impact on the influence of penguinâ€derived nutrients and mosses on nonâ€native grass in a simulated polar ecosystem. Global Change Biology, 2022, 28, 816-828.	4.2	8
2	Global maps of soil temperature. Global Change Biology, 2022, 28, 3110-3144.	4.2	113
3	Explanations for nitrogen decline. Science, 2022, 376, 1169-1170.	6.0	4
4	Optimal growth temperature of Arctic soil bacterial communities increases under experimental warming. Global Change Biology, 2022, 28, 6050-6064.	4.2	16
5	Warming impacts potential germination of non-native plants on the Antarctic Peninsula. Communications Biology, 2021, 4, 403.	2.0	9
6	Decomposition of leaf litter mixtures across biomes: The role of litter identity, diversity and soil fauna. Journal of Ecology, 2020, 108, 2283-2297.	1.9	59
7	Global change effects on plant communities are magnified by time and the number of global change factors imposed. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17867-17873.	3.3	141
8	Nitrogen Inputs by Marine Vertebrates Drive Abundance and Richness in Antarctic Terrestrial Ecosystems. Current Biology, 2019, 29, 1721-1727.e3.	1.8	75
9	Sixteen years of simulated summer and winter warming have contrasting effects on soil mite communities in a sub-Arctic peat bog. Polar Biology, 2019, 42, 581-591.	0.5	9
10	Methane Feedbacks to the Global Climate System in a Warmer World. Reviews of Geophysics, 2018, 56, 207-250.	9.0	354
11	Are litter decomposition and fire linked through plant species traits?. New Phytologist, 2017, 216, 653-669.	3.5	50
12	Icelandic grasslands as long-term C sinks under elevated organic N inputs. Biogeochemistry, 2017, 134, 279-299.	1.7	6
13	Experimentally increased nutrient availability at the permafrost thaw front selectively enhances biomass production of deepâ€rooting subarctic peatland species. Global Change Biology, 2017, 23, 4257-4266.	4.2	105
14	Compositional Stability of the Bacterial Community in a Climate-Sensitive Sub-Arctic Peatland. Frontiers in Microbiology, 2017, 8, 317.	1.5	20
15	Variation in trait tradeâ€offs allows differentiation among predefined plant functional types: implications for predictive ecology. New Phytologist, 2016, 209, 563-575.	3.5	28
16	A novel way to understand plant species preferences in relation to groundwater discharge conditions using a traitâ€based approach. Ecohydrology, 2016, 9, 549-559.	1.1	0
17	Does plant size affect growth responses to water availability at glacial, modern and future CO₂ concentrations?. Ecological Research, 2016, 31, 213-227.	0.7	8
18	Usnea antarctica, an important Antarctic lichen, is vulnerable to aspects of regional environmental change. Polar Biology, 2016, 39, 511-521.	0.5	28

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19	Decadal warming causes a consistent and persistent shift from heterotrophic to autotrophic respiration in contrasting permafrost ecosystems. Global Change Biology, 2015, 21, 4508-4519.	4.2	81
20	Inclusion of ecologically based trait variation in plant functional types reduces the projected land carbon sink in an earth system model. Global Change Biology, 2015, 21, 3074-3086.	4.2	94
21	Potential impacts of groundwater conservation measures on catchment-wide vegetation patterns in a future climate. Landscape Ecology, 2015, 30, 855-869.	1.9	8
22	Polar lessons learned: longâ€term management based on shared threats in Arctic and Antarctic environments. Frontiers in Ecology and the Environment, 2015, 13, 316-324.	1.9	59
23	Is the differential response of riparian plant performance to extreme drought and inundation events related to differences in intraspecific trait variation?. Functional Plant Biology, 2014, 41, 609.	1.1	5
24	Consequences of biodiversity loss for litter decomposition across biomes. Nature, 2014, 509, 218-221.	13.7	600
25	Northern peatland Collembola communities unaffected by three summers of simulated extreme precipitation. Applied Soil Ecology, 2014, 79, 70-76.	2.1	11
26	Do physical plant litter traits explain nonâ€additivity in litter mixtures? A test of the improved microenvironmental conditions theory. Oikos, 2013, 122, 987-997.	1.2	97
27	Processâ€based proxy of oxygen stress surpasses indirect ones in predicting vegetation characteristics. Ecohydrology, 2012, 5, 746-758.	1.1	21
28	Interspecific differences in wood decay rates: insights from a new shortâ€term method to study longâ€term wood decomposition. Journal of Ecology, 2012, 100, 161-170.	1.9	136
29	Successionâ€induced trait shifts across a wide range of NW European ecosystems are driven by light and modulated by initial abiotic conditions. Journal of Ecology, 2012, 100, 366-380.	1.9	62
30	A plant economics spectrum of litter decomposability. Functional Ecology, 2012, 26, 56-65.	1.7	312
31	Summer warming accelerates subâ€arctic peatland nitrogen cycling without changing enzyme pools or microbial community structure. Global Change Biology, 2012, 18, 138-150.	4.2	125
32	Arctic warming on two continents has consistent negative effects on lichen diversity and mixed effects on bryophyte diversity. Global Change Biology, 2012, 18, 1096-1107.	4.2	113
33	A frozen feast: thawing permafrost increases plantâ€available nitrogen in subarctic peatlands. Global Change Biology, 2012, 18, 1998-2007.	4.2	217
34	Multiple mechanisms for trait effects on litter decomposition: moving beyond homeâ€field advantage with a new hypothesis. Journal of Ecology, 2012, 100, 619-630.	1.9	205
35	Highly consistent effects of plant litter identity and functional traits on decomposition across a latitudinal gradient. Ecology Letters, 2012, 15, 1033-1041.	3.0	356
36	Climate change threatens endangered plant species by stronger and interacting water-related stresses. Journal of Geophysical Research, 2011, 116, .	3.3	29

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37	Global to community scale differences in the prevalence of convergent over divergent leaf trait distributions in plant assemblages. Global Ecology and Biogeography, 2011, 20, 755-765.	2.7	106
38	A Race for Space? How Sphagnum fuscum stabilizes vegetation composition during long-term climate manipulations. Global Change Biology, 2011, 17, 2162-2171.	4.2	48
39	Litter Mixture Interactions at the Level of Plant Functional Types are Additive. Ecosystems, 2010, 13, 90-98.	1.6	46
40	Plant Species Composition Can Be Used as a Proxy to Predict Methane Emissions in Peatland Ecosystems After Land-Use Changes. Ecosystems, 2010, 13, 526-538.	1.6	47
41	Substantial nutrient resorption from leaves, stems and roots in a subarctic flora: what is the link with other resource economics traits?. New Phytologist, 2010, 186, 879-889.	3.5	175
42	Nitrogenâ€dependent recovery of subarctic tundra vegetation after simulation of extreme winter warming damage to <i>Empetrum hermaphroditum</i>. Global Change Biology, 2010, 16, 1071-1081.	4.2	42
43	Evidence of the â€˜plant economics spectrumâ€™ in a subarctic flora. Journal of Ecology, 2010, 98, 362-373.	1.9	434
44	Nitrogen supply effects on leaf dynamics and nutrient input into the soil of plant species in a sub-arctic tundra ecosystem. Polar Biology, 2009, 32, 207-214.	0.5	9
45	Seasonal climate manipulations result in speciesâ€specific changes in leaf nutrient levels and isotopic composition in a subâ€arctic bog. Functional Ecology, 2009, 23, 680-688.	1.7	64
46	Ecosystem feedbacks and cascade processes: understanding their role in the responses of Arctic and alpine ecosystems to environmental change. Global Change Biology, 2009, 15, 1153-1172.	4.2	344
47	Determinants of cryptogam composition and diversity in <i>Sphagnum</i>â€dominated peatlands: the importance of temporal, spatial and functional scales. Journal of Ecology, 2009, 97, 299-310.	1.9	45
48	An experimental comparison of chemical traits and litter decomposition rates in a diverse range of subarctic bryophyte, lichen and vascular plant species. Journal of Ecology, 2009, 97, 886-900.	1.9	175
49	Carbon respiration from subsurface peat accelerated by climate warming in the subarctic. Nature, 2009, 460, 616-619.	13.7	612
50	Plant species traits are the predominant control on litter decomposition rates within biomes worldwide. Ecology Letters, 2008, 11, 1065-1071.	3.0	1,913
51	The effect of environmental change on vascular plant and cryptogam communities from the Falkland Islands and the Maritime Antarctic. BMC Ecology, 2007, 7, 15.	3.0	65
52	Size and structure of bacterial, fungal and nematode communities along an Antarctic environmental gradient. FEMS Microbiology Ecology, 2006, 59, 436-451.	1.3	202
53	Vascular Plant Responses to Elevated CO2 in a Temperate Lowland Sphagnum Peatland. Plant Ecology, 2006, 182, 13-24.	0.7	14
54	Moss Responses to Elevated CO2 and Variation in Hydrology in a Temperate Lowland Peatland. Plant Ecology, 2006, 182, 27-40.	0.7	30

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55	Are growth forms consistent predictors of leaf litter quality and decomposability across peatlands along a latitudinal gradient?. Journal of Ecology, 2005, 93, 817-828.	1.9	186
56	Special issue â€“ Plants and Climate Change. Plant Ecology, 2005, , 1.	0.7	0
57	Summer warming and increased winter snow cover affect Sphagnum fuscum growth, structure and production in a sub-arctic bog. Global Change Biology, 2004, 10, 93-104.	4.2	169
58	Elevated UV-B radiation has no effect on litter quality and decomposition of two dune grassland species: evidence from a long-term field experiment. Global Change Biology, 2004, 10, 200-208.	4.2	18
59	Is there a trade-off between the plant's growth response to elevated CO2 and subsequent litter decomposability?. Oikos, 2003, 103, 17-30.	1.2	14
60	DECOMPOSITION OF SUB-ARCTIC PLANTS WITH DIFFERING NITROGEN ECONOMIES: A FUNCTIONAL ROLE FOR HEMIPARASITES. Ecology, 2003, 84, 3209-3221.	1.5	156
61	PLANT COMMUNITY MEDIATED VS. NUTRITIONAL CONTROLS ON LITTER DECOMPOSITION RATES IN GRASSLANDS. Ecology, 2003, 84, 3198-3208.	1.5	77
62	Litter quality and interactive effects in litter mixtures: more negative interactions under elevated CO2?. Journal of Ecology, 2002, 90, 1009-1016.	1.9	51
63	Climate, Leaf Litter Chemistry and Leaf Litter Decomposition in Terrestrial Ecosystems: A Triangular Relationship. Oikos, 1997, 79, 439.	1.2	1,375
64	Interspecific competition in natural plant communities: mechanisms, trade-offs and plant-soil feedbacks. , 0, .		110