Anita C Risch

List of Publications by Year
in descending order

123 papers	7,809 citations	101543 36 h-index	56724 83 g-index
127 all docs	127 docs citations	127 times ranked	9321 citing authors

#	Article	IF	Citations
1	Consistent responses of soil microbial communities to elevated nutrient inputs in grasslands across the globe. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10967-10972.	7.1	1,023
2	Herbivores and nutrients control grassland plant diversity via light limitation. Nature, 2014, 508, 517-520.	27.8	669
3	Plant diversity predicts beta but not alpha diversity of soil microbes across grasslands worldwide. Ecology Letters, 2015, 18, 85-95.	6.4	612
4	Productivity Is a Poor Predictor of Plant Species Richness. Science, 2011, 333, 1750-1753.	12.6	463
5	Eutrophication weakens stabilizing effects of diversity in natural grasslands. Nature, 2014, 508, 521-525.	27.8	409
6	Grassland productivity limited by multiple nutrients. Nature Plants, 2015, 1, 15080.	9.3	403
7	Addition of multiple limiting resources reduces grassland diversity. Nature, 2016, 537, 93-96.	27.8	355
8	Local loss and spatial homogenization of plant diversity reduce ecosystem multifunctionality. Nature Ecology and Evolution, 2018, 2, 50-56.	7.8	172
9	Lifeâ€history constraints in grassland plant species: a growthâ€defence tradeâ€off is the norm. Ecology Letters, 2013, 16, 513-521.	6.4	165
10	Anthropogenic nitrogen deposition predicts local grassland primary production worldwide. Ecology, 2015, 96, 1459-1465.	3.2	143
11	Plant speciesâ€™ origin predicts dominance and response to nutrient enrichment and herbivores in global grasslands. Nature Communications, 2015, 6, 7710.	12.8	143
12	Change in dominance determines herbivore effects on plant biodiversity. Nature Ecology and Evolution, 2018, 2, 1925-1932.	7.8	140
13	The impact of ants on mineral soil properties and processes at different spatial scales. Journal of Applied Entomology, 2008, 132, 285-294.	1.8	102
14	Leaf nutrients, not specific leaf area, are consistent indicators of elevated nutrient inputs. Nature Ecology and Evolution, 2019, 3, 400-406.	7.8	97
15	How to predict plant functional types using imaging spectroscopy: linking vegetation community traits, plant functional types and spectral response. Methods in Ecology and Evolution, 2017, 8, 86-95.	5.2	82
16	Carbon dioxide fluxes in a spatially and temporally heterogeneous temperate grassland. Oecologia, 2006, 147, 291-302.	2.0	81
17	Impact of herbivory by red deer (Cervus elaphus L.) on patterns and processes in subalpine grasslands in the Swiss National Park. Forest Ecology and Management, 2003, 181, 177-188.	3.2	79
18	General destabilizing effects of eutrophication on grassland productivity at multiple spatial scales. Nature Communications, 2020, 11, 5375.	12.8	75

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19	THE CONTRIBUTION OF RED WOOD ANTS TO SOIL C AND N POOLS AND CO2EMISSIONS IN SUBALPINE FORESTS. Ecology, 2005, 86, 419-430.	3.2	71
20	Predicting invasion in grassland ecosystems: is exotic dominance the real embarrassment of richness?. Global Change Biology, 2013, 19, 3677-3687.	9.5	70
21	Foraging activity and dietary spectrum of wood ants (<i>Formica rufa</i>group) and their role in nutrient fluxes in boreal forests. Ecological Entomology, 2009, 34, 369-377.	2.2	67
22	Increasing effects of chronic nutrient enrichment on plant diversity loss and ecosystem productivity over time. Ecology, 2021, 102, e03218.	3.2	62
23	Soil net nitrogen mineralisation across global grasslands. Nature Communications, 2019, 10, 4981.	12.8	57
24	Does the mutualism between wood ants (Formica rufa group) and Cinara aphids affect Norway spruce growth?. Forest Ecology and Management, 2009, 257, 238-243.	3.2	56
25	Out of the shadows: multiple nutrient limitations drive relationships among biomass, light and plant diversity. Functional Ecology, 2017, 31, 1839-1846.	3.6	55
26	Effects of grazing and soil micro-climate on decomposition rates in a spatio-temporally heterogeneous grassland. Plant and Soil, 2007, 298, 191-201.	3.7	52
27	Decomposition of organic matter and nutrient mineralisation in wood ant (Formica rufa group) mounds in boreal coniferous forests of different age. Biology and Fertility of Soils, 2008, 44, 539-545.	4.3	47
28	Simulating structural forest patterns with a forest gap model: a model evaluation. Ecological Modelling, 2005, 181, 161-172.	2.5	46
29	Carbon, nitrogen and phosphorus dynamics of ant mounds (Formica rufa group) in managed boreal forests of different successional stages. Applied Soil Ecology, 2007, 36, 156-163.	4.3	46
30	Effects of increased soil water availability on grassland ecosystem carbon dioxide fluxes. Biogeochemistry, 2007, 86, 91-103.	3.5	46
31	Size-dependent loss of aboveground animals differentially affects grassland ecosystem coupling and functions. Nature Communications, 2018, 9, 3684.	12.8	46
32	The effect of red wood ant (Formica rufa group) mounds on root biomass, density, and nutrient concentrations in boreal managed forests. Journal of Forest Research, 2007, 12, 113-119.	1.4	45
33	Distribution of ant species and mounds (<i>Formica</i>) in differentâ€aged managed spruce stands in eastern Finland. Journal of Applied Entomology, 2008, 132, 315-325.	1.8	44
34	Nutrient availability controls the impact of mammalian herbivores on soil carbon and nitrogen pools in grasslands. Global Change Biology, 2020, 26, 2060-2071.	9.5	43
35	Herbivory and eutrophication mediate grassland plant nutrient responses across a global climatic gradient. Ecology, 2018, 99, 822-831.	3.2	42
36	More salt, please: global patterns, responses and impacts of foliar sodium in grasslands. Ecology Letters, 2019, 22, 1136-1144.	6.4	42

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37	Negative effects of nitrogen override positive effects of phosphorus on grassland legumes worldwide. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	40
38	Phosphorus Translocation by Red Deer on a Subalpine Grassland in the Central European Alps. Ecosystems, 2006, 9, 624-633.	3.4	39
39	Fertilized graminoids intensify negative drought effects on grassland productivity. Global Change Biology, 2021, 27, 2441-2457.	9.5	39
40	Aboveground vertebrate and invertebrate herbivore impact on net N mineralization in subalpine grasslands. Ecology, 2015, 96, 3312-3322.	3.2	38
41	Spatial heterogeneity in species composition constrains plant community responses to herbivory and fertilisation. Ecology Letters, 2018, 21, 1364-1371.	6.4	38
42	Contribution of red wood ant mounds to forest floor CO2 efflux in boreal coniferous forests. Soil Biology and Biochemistry, 2006, 38, 2425-2433.	8.8	36
43	Organic moundâ€building ants: their impact on soil properties in temperate and boreal forests. Journal of Applied Entomology, 2008, 132, 266-275.	1.8	36
44	Long-term development of above- and below-ground carbon stocks following land-use change in subalpine ecosystems of the Swiss National Park. Canadian Journal of Forest Research, 2008, 38, 1590-1602.	1.7	36
45	Do changes in soil properties after rooting by wild boars (<i>Sus scrofa</i>) affect understory vegetation in Swiss hardwood forests?. Canadian Journal of Forest Research, 2012, 42, 585-592.	1.7	35
46	Nutrients cause grassland biomass to outpace herbivory. Nature Communications, 2020, 11, 6036.	12.8	35
47	Belowground Biomass Response to Nutrient Enrichment Depends on Light Limitation Across Globally Distributed Grasslands. Ecosystems, 2019, 22, 1466-1477.	3.4	34
48	Seed dispersal in red deer (Cervus elaphus L.) dung and its potential importance for vegetation dynamics in subalpine grasslands. Basic and Applied Ecology, 2011, 12, 505-515.	2.7	33
49	The Role of Wood Ants (Formica rufa group) in Carbon and Nutrient Dynamics of a Boreal Norway Spruce Forest Ecosystem. Ecosystems, 2013, 16, 196-208.	3.4	33
50	The Response of Soil CO2 Fluxes to Progressively Excluding Vertebrate and Invertebrate Herbivores Depends on Ecosystem Type. Ecosystems, 2013, 16, 1192-1202.	3.4	32
51	Foraging ecology of three sympatric ungulate species â€" Behavioural and resource maps indicate differences between chamois, ibex and red deer. Movement Ecology, 2015, 3, 6.	2.8	31
52	CO2 efflux from a red wood ant mound in a boreal forest. Agricultural and Forest Meteorology, 2005, 130, 131-136.	4.8	30
53	Grubbing by wild boars (Sus scrofa L.) and its impact on hardwood forest soil carbon dioxide emissions in Switzerland. Oecologia, 2010, 164, 773-784.	2.0	30
54	Endozoochorous seed dispersal and germination strategies of <scp>S</scp>erengeti plants. Journal of Vegetation Science, 2014, 25, 636-647.	2.2	30

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55	Using imaging spectroscopy to predict aboveâ€ground plant biomass in alpine grasslands grazed by large ungulates. Journal of Vegetation Science, 2015, 26, 175-190.	2.2	29
56	From local to regional: Functional diversity in differently managed alpine grasslands. Remote Sensing of Environment, 2020, 236, 111415.	11.0	28
57	Soil properties as key predictors of global grassland production: Have we overlooked micronutrients?. Ecology Letters, 2021, 24, 2713-2725.	6.4	28
58	Spatial resolution, spectral metrics and biomass are key aspects in estimating plant species richness from spectral diversity in speciesâ€rich grasslands. Remote Sensing in Ecology and Conservation, 2022, 8, 297-314.	4.3	28
59	Microbial processing of plant remains is coâ€limited by multiple nutrients in global grasslands. Global Change Biology, 2020, 26, 4572-4582.	9.5	27
60	Topographic and ungulate regulation of soil C turnover in a temperate grassland ecosystem. Global Change Biology, 2011, 17, 495-504.	9.5	26
61	Seed germination cues and the importance of the soil seed bank across an environmental gradient in the Serengeti. Oikos, 2012, 121, 306-312.	2.7	26
62	Ecosystem coupling: A unifying framework to understand the functioning and recovery of ecosystems. One Earth, 2021, 4, 951-966.	6.8	26
63	Linkages between grazing history and herbivore exclusion on decomposition rates in mineral soils of subalpine grasslands. Plant and Soil, 2014, 374, 579-591.	3.7	25
64	Global impacts of fertilization and herbivore removal on soil net nitrogen mineralization are modulated by local climate and soil properties. Global Change Biology, 2020, 26, 7173-7185.	9.5	25
65	Nutrient enrichment increases invertebrate herbivory and pathogen damage in grasslands. Journal of Ecology, 2022, 110, 327-339.	4.0	25
66	Impact of wild ungulate grazing on Orthoptera abundance and diversity in subalpine grasslands. Insect Conservation and Diversity, 2012, 5, 444-452.	3.0	24
67	Mammalâ€induced trophic cascades in invertebrate food webs are modulated by grazing intensity in subalpine grassland. Journal of Animal Ecology, 2017, 86, 1434-1446.	2.8	24
68	Influence of migratory ungulate management on competitive interactions with resident species in a protected area. Ecosphere, 2015, 6, 1-18.	2.2	23
69	Effects of wild boar (Sus scrofa L.) rooting on the bacterial community structure in mixed-hardwood forest soils in Switzerland. European Journal of Soil Biology, 2011, 47, 296-302.	3.2	22
70	Seasonal and diurnal CO2 efflux from red wood ant (Formica aquilonia) mounds in boreal coniferous forests. Soil Biology and Biochemistry, 2007, 39, 1504-1511.	8.8	21
71	Impact of <i>Formica exsecta</i> Nyl. on seed bank and vegetation patterns in a subalpine grassland ecosystem. Journal of Applied Entomology, 2008, 132, 295-305.	1.8	21
72	Does topsoil removal in grassland restoration benefit both soil nematode and plant communities?. Journal of Applied Ecology, 2019, 56, 1782-1793.	4.0	21

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73	Detecting successional changes in long-term empirical data from subalpine conifer forests. Plant Ecology, 2004, 172, 95-105.	1.6	20
74	Remote sensing of spectral diversity: A new methodological approach to account for spatio-temporal dissimilarities between plant communities. Ecological Indicators, 2021, 130, 108106.	6.3	20
75	Diurnal and Seasonal Patterns in Ecosystem CO2 Fluxes and Their Controls in a Temperate Grassland. Rangeland Ecology and Management, 2010, 63, 62-71.	2.3	19
76	Initial turnover rates of two standard wood substrates following land-use change in subalpine ecosystems in the Swiss Alps. Canadian Journal of Forest Research, 2013, 43, 901-910.	1.7	19
77	Distribution and habitat requirements of red wood ants in Switzerland: Implications for conservation. Biological Conservation, 2017, 212, 366-375.	4.1	18
78	Nutrients and herbivores impact grassland stability across spatial scales through different pathways. Global Change Biology, 2022, 28, 2678-2688.	9.5	18
79	Biotic responses to climate extremes in terrestrial ecosystems. IScience, 2022, 25, 104559.	4.1	18
80	Indirect Short- and Long-Term Effects of Aboveground Invertebrate and Vertebrate Herbivores on Soil Microarthropod Communities. PLoS ONE, 2015, 10, e0118679.	2.5	17
81	Wood ant foraging and mutualism with aphids. , 2016, , 145-176.		17
82	Responses of plant leaf economic and hydraulic traits mediate the effects of early- and late-season drought on grassland productivity. AoB PLANTS, 2019, 11, plz023.	2.3	17
83	Evaluating longâ€term success in grassland restoration: an ecosystem multifunctionality approach. Ecological Applications, 2021, 31, e02271.	3.8	17
84	Nutrient identity modifies the destabilising effects of eutrophication in grasslands. Ecology Letters, 2022, 25, 754-765.	6.4	17
85	Comment on â€œWorldwide evidence of a unimodal relationship between productivity and plant species richnessâ€• Science, 2016, 351, 457-457.	12.6	16
86	Abundance and distribution of organic moundâ€building ants of the<i>Formica rufa</i>group in Yellowstone National Park. Journal of Applied Entomology, 2008, 132, 326-336.	1.8	15
87	The fate of an intentional introduction of Formica lugubris to North America from Europe. Journal of Applied Entomology, 2008, 132, 276-280.	1.8	14
88	Stem exclusion and mortality in unmanaged subalpine forests of the Swiss Alps. European Journal of Forest Research, 2012, 131, 1571-1583.	2.5	14
89	Effects of elk and bison carcasses on soil microbial communities and ecosystem functions in Yellowstone, USA. Functional Ecology, 2020, 34, 1933-1944.	3.6	14
90	Temporal rarity is a better predictor of local extinction risk than spatial rarity. Ecology, 2021, 102, e03504.	3.2	14

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91	Response of a subalpine grassland to simulated grazing: aboveground productivity along soil phosphorus gradients. Community Ecology, 2007, 8, 111-117.	0.9	13
92	Nutrient release from moose bioturbation in aquatic ecosystems. Oikos, 2017, 126, 389-397.	2.7	13
93	Species loss due to nutrient addition increases with spatial scale in global grasslands. Ecology Letters, 2021, 24, 2100-2112.	6.4	13
94	The effect of stand age on CO2 efflux from wood ant (Formica rufa group) mounds in boreal forests. Soil Biology and Biochemistry, 2012, 52, 21-28.	8.8	12
95	Nitrogen increases earlyâ€stage and slows lateâ€stage decomposition across diverse grasslands. Journal of Ecology, 2022, 110, 1376-1389.	4.0	12
96	Where and why? Wood ant population ecology. , 2016, , 81-105.		11
97	Herbivores sculpt leaf traits differently in grasslands depending on life form and landâ€use histories. Ecology, 2017, 98, 239-252.	3.2	11
98	Dominant native and nonâ€native graminoids differ in key leaf traits irrespective of nutrient availability. Global Ecology and Biogeography, 2020, 29, 1126-1138.	5.8	11
99	Longâ€term restoration success of insect herbivore communities in seminatural grasslands: a functional approach. Ecological Applications, 2020, 30, e02133.	3.8	11
100	Nitrogen but not phosphorus addition affects symbiotic N2 fixation by legumes in natural and semi-natural grasslands located on four continents. Plant and Soil, 2022, 478, 689-707.	3.7	11
101	Sources of variation in the incidence of ant-aphid mutualism in boreal forests. Agricultural and Forest Entomology, 2011, 13, 239-245.	1.3	10
102	Stand type is more important than red wood ant abundance for the structure of groundâ€dwelling arthropod assemblages in managed boreal forests. Agricultural and Forest Entomology, 2012, 14, 295-305.	1.3	10
103	Leaf trait variability between and within subalpine grassland species differs depending on site conditions and herbivory. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20190429.	2.6	10
104	MACIS: Minimisation of and Adaptation to Climate Change Impacts on Biodiversity. Gaia, 2008, 17, 393-395.	0.7	10
105	Aboveground mammal and invertebrate exclusions cause consistent changes in soil food webs of two subalpine grassland types, but mechanisms are systemâ€specific. Oikos, 2017, 126, .	2.7	9
106	Soil CO2 Emissions Associated with Termitaria in Tropical Savanna: Evidence for Hot-Spot Compensation. Ecosystems, 2012, 15, 1147-1157.	3.4	8
107	Spatiotemporal dynamics of natural tree regeneration in unmanaged subalpine conifer forests with high wild ungulate densities. Canadian Journal of Forest Research, 2015, 45, 607-614.	1.7	8
108	Progressively excluding mammals of different body size affects community and trait structure of ground beetles. Oikos, 2018, 127, 1515-1525.	2.7	8

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109	A facilitation between large herbivores and ants accelerates litter decomposition by modifying soil microenvironmental conditions. Functional Ecology, 2021, 35, 1822-1832.	3.6	8
110	Does the Aboveground Herbivore Assemblage Influence Soil Bacterial Community Composition and Richness in Subalpine Grasslands?. Microbial Ecology, 2014, 68, 584-595.	2.8	7
111	Continuous Fields From Imaging Spectrometer Data for Ecosystem Parameter Mapping and Their Potential for Animal Habitat Assessment in Alpine Regions. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2600-2610.	4.9	7
112	Ants in the soil systemâ€ƒâ€"â€ƒa hydrological, chemical and biological approach. Journal of Applied Entomology, 2008, 132, 265-265.	1.8	6
113	First evidence that the sodium ecosystem respiration (SER) hypothesis may also hold for a coastal tropical rainforest. Applied Soil Ecology, 2016, 108, 92-95.	4.3	6
114	Mammalian herbivores affect leafhoppers associated with specific plant functional types at different timescales. Functional Ecology, 2018, 32, 545-555.	3.6	6
115	Predicting long-term development of abandoned subalpine conifer forests in the Swiss National Park. Ecological Modelling, 2009, 220, 1578-1585.	2.5	5
116	Carex sempervirens tussocks induce spatial heterogeneity in litter decomposition, but not in soil properties, in a subalpine grassland in the Central Alps. Flora: Morphology, Distribution, Functional Ecology of Plants, 2011, 206, 373-379.	1.2	4
117	Longâ€term recovery of aboveâ€and belowâ€ground interactions in restored grasslands after topsoil removal and seed addition. Journal of Applied Ecology, 2022, 59, 2299-2308.	4.0	4
118	Controls of Initial Wood Decomposition on and in Forest Soils Using Standard Material. Frontiers in Forests and Global Change, 2022, 5, .	2.3	3
119	The distribution of a group of keystone species is not associated with anthropogenic habitat disturbance. Diversity and Distributions, 2021, 27, 572-584.	4.1	2
120	Sizeâ€selective exclusion of mammals and invertebrates differently affects grassland plant communities depending on vegetation type. Journal of Ecology, 2021, 109, 1703-1716.	4.0	2
121	Description of the sexuales of Myzodium modestum (Hottes) (Hemiptera: Aphididae) discovered in the Swiss Alps. Zootaxa, 2016, 4196, 589.	0.5	1
122	Global Grassland Diazotrophic Communities Are Structured by Combined Abiotic, Biotic, and Spatial Distance Factors but Resilient to Fertilization. Frontiers in Microbiology, 2022, 13, 821030.	3.5	1
123	Non-Native Eragrostis curvula Impacts Diversity of Pastures in South-Eastern Australia Even When Native Themeda triandra Remains Co-Dominant. Plants, 2021, 10, 596.	3.5	0