Michael J Gundale

List of Publications by Year
in descending order

91	5,042	101384	98622
papers	citations	36 h-index	67 g-index

92	92	92	6449
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Wildfire-Produced Charcoal Directly Influences Nitrogen Cycling in Ponderosa Pine Forests. Soil Science Society of America Journal, 2006, 70, 448-453.	1.2	391
2	Global distribution of earthworm diversity. Science, 2019, 366, 480-485.	6.0	248
3	The ratio of Gram-positive to Gram-negative bacterial PLFA markers as an indicator of carbon availability in organic soils. Soil Biology and Biochemistry, 2019, 128, 111-114.	4.2	244
4	Temperature and source material influence ecological attributes of ponderosa pine and Douglas-fir charcoal. Forest Ecology and Management, 2006, 231, 86-93.	1.4	235
5	Linking vegetation change, carbon sequestration and biodiversity: insights from island ecosystems in a longâ€term natural experiment. Journal of Ecology, 2012, 100, 16-30.	1.9	191
6	Bryophytes attenuate anthropogenic nitrogen inputs in boreal forests. Global Change Biology, 2011, 17, 2743-2753.	4.2	183
7	Anthropogenic nitrogen deposition enhances carbon sequestration in boreal soils. Global Change Biology, 2015, 21, 3169-3180.	4.2	163
8	Bryophyteâ€cyanobacteria associations as regulators of the northern latitude carbon balance in response to global change. Global Change Biology, 2013, 19, 2022-2035.	4.2	162
9	Ecosystem Feedbacks and Nitrogen Fixation in Boreal Forests. Science, 2008, 320, 1181-1181.	6.0	159
10	Charcoal effects on soil solution chemistry and growth of Koeleria macrantha in the ponderosa pine/Douglas-fir ecosystem. Biology and Fertility of Soils, 2006, 43, 303-311.	2.3	158
11	Isotopic evidence for oligotrophication of terrestrial ecosystems. Nature Ecology and Evolution, 2018, 2, 1735-1744.	3.4	138
12	Consistent effects of biodiversity loss on multifunctionality across contrasting ecosystems. Nature Ecology and Evolution, 2018, 2, 269-278.	3.4	136
13	Restoration treatments in a Montana ponderosa pine forest: Effects on soil physical, chemical and biological properties. Forest Ecology and Management, 2005, 213, 25-38.	1.4	116
14	Influence of Exotic Earthworms on the Soil Organic Horizon and the Rare Fern Botrychium mormo. Conservation Biology, 2002, 16, 1555-1561.	2.4	112
15	Anthropogenic nitrogen deposition in boreal forests has a minor impact on the global carbon cycle. Global Change Biology, 2014, 20, 276-286.	4.2	103
16	Interactions with soil biota shift from negative to positive when a tree species is moved outside its native range. New Phytologist, 2014, 202, 415-421.	3.5	96
17	Impact of nitrogen deposition on forest and lake food webs in nitrogenâ€limited environments. Global Change Biology, 2016, 22, 164-179.	4.2	93
18	The interactive effects of temperature and light on biological nitrogen fixation in boreal forests. New Phytologist, 2012, 194, 453-463.	3.5	85

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19	Nitrogen dynamics in managed boreal forests: Recent advances and future research directions. Ambio, 2016, 45, 175-187.	2.8	76
20	Susceptibility of a Northern Hardwood Forest to Exotic Earthworm Invasion. Conservation Biology, 2005, 19, 1075-1083.	2.4	71
21	Anthropogenic nitrogen enrichment enhances soil carbon accumulation by impacting saprotrophs rather than ectomycorrhizal fungal activity. Global Change Biology, 2019, 25, 2900-2914.	4.2	68
22	Extreme defoliation reduces tree growth but not C and N storage in a winter-deciduous species. Annals of Botany, 2015, 115, 1093-1103.	1.4	63
23	The sensitivity of nitrogen fixation by a feathermossâ€“cyanobacteria association to litter and moisture variability in young and old boreal forests. Canadian Journal of Forest Research, 2009, 39, 2542-2549.	0.8	62
24	Effects of plant functional group removal on structure and function of soil communities across contrasting ecosystems. Ecology Letters, 2019, 22, 1095-1103.	3.0	61
25	The effect of biochar management on soil and plant community properties in a boreal forest. GCB Bioenergy, 2016, 8, 777-789.	2.5	56
26	Functional response of the soil microbial community to biochar applications. GCB Bioenergy, 2021, 13, 269-281.	2.5	56
27	Stimulation of boreal tree seedling growth by woodâ€derived charcoal: effects of charcoal properties, seedling species and soil fertility. Functional Ecology, 2014, 28, 766-775.	1.7	55
28	The effect of altered macroclimate on N-fixation by boreal feather mosses. Biology Letters, 2012, 8, 805-808.	1.0	54
29	Decoupled longâ€term effects of nutrient enrichment on aboveground and belowground properties in subalpine tundra. Ecology, 2013, 94, 904-919.	1.5	54
30	Effects of elevation and nitrogen and phosphorus fertilization on plant defence compounds in subarctic tundra heath vegetation. Functional Ecology, 2016, 30, 314-325.	1.7	54
31	Nitrogen Spatial Heterogeneity Influences Diversity Following Restoration In A Ponderosa Pine Forest, Montana. , 2006, 16, 479-489.		52
32	Fire, native species, and soil resource interactions influence the spatioâ€temporal invasion pattern of Bromus tectorum. Ecography, 2008, 31, 201-210.	2.1	50
33	Comparison of plantâ€“soil feedback experimental approaches for testing soil biotic interactions among ecosystems. New Phytologist, 2019, 221, 577-587.	3.5	46
34	Root traitâ€“microbial relationships across tundra plant species. New Phytologist, 2021, 229, 1508-1520.	3.5	46
35	Vascular plant removal effects on biological N fixation vary across a boreal forest island gradient. Ecology, 2010, 91, 1704-1714.	1.5	43
36	Direct and Indirect Drivers of Moss Community Structure, Function, and Associated Microfauna Across a Successional Gradient. Ecosystems, 2015, 18, 154-169.	1.6	43

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37	The impact of simulated chronic nitrogen deposition on the biomass and N ₂ -fixation activity of two boreal feather mossâ€“cyanobacteria associations. Biology Letters, 2013, 9, 20130797.	1.0	40
38	Impact of understory mosses and dwarf shrubs on soil micro-arthropods in a boreal forest chronosequence. Plant and Soil, 2014, 379, 121-133.	1.8	40
39	Differences in endophyte communities of introduced trees depend on the phylogenetic relatedness of the receiving forest. Journal of Ecology, 2016, 104, 1219-1232.	1.9	40
40	Resource heterogeneity does not explain the diversity-productivity relationship across a boreal island fertility gradient. Ecography, 2011, 34, 887-896.	2.1	37
41	Chemical properties of plant litter in response to elevation: subarctic vegetation challenges phenolic allocation theories. Functional Ecology, 2012, 26, 1090-1099.	1.7	36
42	Can model species be used to advance the field of invasion ecology?. Biological Invasions, 2014, 16, 591-607.	1.2	36
43	Longâ€term declines in stream and river inorganic nitrogen (N) export correspond to forest change. Ecological Applications, 2016, 26, 545-556.	1.8	35
44	Multiâ€dimensionality as a path forward in plantâ€soil feedback research. Journal of Ecology, 2021, 109, 3446-3465.	1.9	34
45	The Impact of Moss Species and Biomass on the Growth of Pinus sylvestris Tree Seedlings at Different Precipitation Frequencies. Forests, 2014, 5, 1931-1951.	0.9	33
46	Low and High Nitrogen Deposition Rates in Northern Coniferous Forests Have Different Impacts on Aboveground Litter Production, Soil Respiration, and Soil Carbon Stocks. Ecosystems, 2020, 23, 1423-1436.	1.6	33
47	Nitrogen niches revealed through species and functional group removal in a boreal shrub community. Ecology, 2012, 93, 1695-1706.	1.5	31
48	Nitrogen fixation rates associated with the feather mosses Pleurozium schreberi and Hylocomium splendens during forest stand development following clear-cutting. Forest Ecology and Management, 2015, 347, 130-139.	1.4	31
49	Soil handling methods should be selected based on research questions and goals. New Phytologist, 2017, 216, 18-23.	3.5	31
50	Global data on earthworm abundance, biomass, diversity and corresponding environmental properties. Scientific Data, 2021, 8, 136.	2.4	29
51	Trophic cascades in the bryosphere: the impact of global change factors on topâ€down control of cyanobacterial N₂â€fixation. Ecology Letters, 2016, 19, 967-976.	3.0	28
52	Genotypic Tannin Levels in Populus tremula Impact the Way Nitrogen Enrichment Affects Growth and Allocation Responses for Some Traits and Not for Others. PLoS ONE, 2015, 10, e0140971.	1.1	24
53	Nitrogen enrichment impacts on boreal litter decomposition are driven by changes in soil microbiota rather than litter quality. Scientific Reports, 2017, 7, 4083.	1.6	24
54	Impacts of tree species identity and species mixing on ecosystem carbon and nitrogen stocks in a boreal forest. Forest Ecology and Management, 2020, 458, 117783.	1.4	24

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55	Ericoid shrubs shape fungal communities and suppress organic matter decomposition in boreal forests. New Phytologist, 2022, 236, 684-697.	3.5	23
56	The impact of charcoal and soil mixtures on decomposition and soil microbial communities in boreal forest. Applied Soil Ecology, 2016, 99, 40-50.	2.1	22
57	Combined effects of anthropogenic fires and land-use change on soil properties and processes in Patagonia, Chile. Forest Ecology and Management, 2015, 357, 60-67.	1.4	21
58	Severity of impacts of an introduced species corresponds with regional ecoâ€evolutionary experience. Ecography, 2019, 42, 12-22.	2.1	19
59	Anthropogenic nitrogen enrichment increased the efficiency of belowground biomass production in a boreal forest. Soil Biology and Biochemistry, 2021, 155, 108154.	4.2	19
60	Changes in localâ€scale intraspecific trait variability of dominant species across contrasting island ecosystems. Ecosphere, 2014, 5, 1-17.	1.0	17
61	Aspen phenylpropanoid genesâ€™ expression levels correlate with genetsâ€™ tannin richness and vary both in responses to soil nitrogen and associations with phenolic profiles. Tree Physiology, 2017, 37, 270-279.	1.4	17
62	Forest restoration treatments have subtle longâ€term effects on soil CÂand N cycling in mixed conifer forests. Ecological Applications, 2016, 26, 1503-1516.	1.8	17
63	Biochar increases tree biomass in a managed boreal forest, but does not alter N₂O, CH₄, and CO₂ emissions. GCB Bioenergy, 2021, 13, 1329-1342.	2.5	17
64	Soil biotic and abiotic effects on seedling growth exhibit contextâ€dependent interactions: evidence from a multiâ€country experiment on Pinus contorta invasion. New Phytologist, 2021, 232, 303-317.	3.5	17
65	Chronic Nitrogen Deposition Has a Minor Effect on the Quantity and Quality of Aboveground Litter in a Boreal Forest. PLoS ONE, 2016, 11, e0162086.	1.1	16
66	Variation in protein complexation capacity among and within six plant species across a boreal forest chronosequence. Plant Ecology, 2010, 211, 253-266.	0.7	15
67	Tree species versus regional controls on ecosystem properties and processes: an example using introduced Pinus contorta in Swedish boreal forests¹This article is one of a selection of papers from the 7th International Conference on Disturbance Dynamics in Boreal Forests.. Canadian Journal of Forest Research, 2012, 42, 1228-1238.	0.8	15
68	Anthropogenic deposition of heavy metals and phosphorus may reduce biological N2 fixation in boreal forest mosses. Science of the Total Environment, 2018, 630, 203-210.	3.9	13
69	Effects of plant functional group removal on CO 2 fluxes and belowground C stocks across contrasting ecosystems. Ecology, 2020, 101, e03170.	1.5	13
70	Pyrogenic Carbon Generation From Fire and Forest Restoration Treatments. Frontiers in Forests and Global Change, 2020, 3, .	1.0	13
71	Effects of Soil Abiotic and Biotic Factors on Tree Seedling Regeneration Following a Boreal Forest Wildfire. Ecosystems, 2022, 25, 471-487.	1.6	12
72	Root trait variation along a subâ€arctic tundra elevational gradient. Oikos, 2023, 2023, .	1.2	12

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73	Nutrient optimization of tree growth alters structure and function of boreal soil food webs. Forest Ecology and Management, 2018, 428, 46-56.	1.4	11
74	Herbivore resistance in congeneric and sympatric Nothofagus species is not related to leaf habit. American Journal of Botany, 2019, 106, 788-797.	0.8	10
75	The impact of anthropogenic nitrogen deposition on global forests: Negative impacts far exceed the carbon benefits. Global Change Biology, 2022, 28, 690-692.	4.2	10
76	Longâ€term nitrogen enrichment does not increase microbial phosphorus mobilization in a northern coniferous forest. Functional Ecology, 2021, 35, 277-287.	1.7	9
77	Genotypic variability in Populus tremula L. affects how anthropogenic nitrogen enrichment influences litter decomposition. Plant and Soil, 2017, 410, 467-481.	1.8	8
78	Impact of plant functional group and species removals on soil and plant nitrogen and phosphorus across a retrogressive chronosequence. Journal of Ecology, 2020, 108, 561-573.	1.9	8
79	Empirical and Earth system model estimates of boreal nitrogen fixation often differ: A pathway toward reconciliation. Global Change Biology, 2021, 27, 5711-5725.	4.2	8
80	Root traits and soil microâ€organisms as drivers of plantâ€“soil feedbacks within the subâ€arctic tundra meadow. Journal of Ecology, 2022, 110, 466-478.	1.9	8
81	Influence of species identity and charring conditions on fire-derived charcoal traits. Canadian Journal of Forest Research, 2015, 45, 1669-1675.	0.8	7
82	Shifts in Aboveground Biomass Allocation Patterns of Dominant Shrub Species across a Strong Environmental Gradient. PLoS ONE, 2016, 11, e0157136.	1.1	7
83	Seedling responses to changes in canopy and soil properties during stand development following clear-cutting. Forest Ecology and Management, 2016, 378, 31-43.	1.4	7
84	Canopy cover type, and not fine-scale resource availability, explains native and exotic species richness in a landscape affected by anthropogenic fires and posterior land-use change. Biological Invasions, 2018, 20, 385-398.	1.2	6
85	Genetic increases in growth do not lead to trade-offs with ecologically important litter and fine root traits in Norway spruce. Forest Ecology and Management, 2019, 446, 54-62.	1.4	6
86	European aspen with high compared to low constitutive tannin defenses grow taller in response to anthropogenic nitrogen enrichment. Forest Ecology and Management, 2021, 487, 118985.	1.4	6
87	The carbon sequestration response of aboveground biomass and soils to nutrient enrichment in boreal forests depends on baseline site productivity. Science of the Total Environment, 2022, 838, 156327.	3.9	6
88	No evidence that conifer biochar impacts soil functioning by serving as microbial refugia in boreal soils. GCB Bioenergy, 2022, 14, 972-988.	2.5	5
89	Reply to: Data do not support large-scale oligotrophication of terrestrial ecosystems. Nature Ecology and Evolution, 2019, 3, 1287-1288.	3.4	4
90	Trait coordination in boreal mosses reveals a bryophyte economics spectrum. Journal of Ecology, 2022, 110, 2493-2506.	1.9	4

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91	Progeny selection for enhanced forest growth alters soil communities and processes. Ecosphere, 2022, 13, .	1.0	3