Jill F Johnstone

List of Publications by Year
in descending order

104 papers	9,997 citations	47004 47 h-index	36025 97 g-index
107 all docs	107 docs citations	107 times ranked	10389 citing authors

#	Article	IF	Citations
1	Material Legacies and Environmental Constraints Underlie Fire Resilience of a Dominant Boreal Forest Type. Ecosystems, 2023, 26, 473-490.	3.4	2
2	Northern boreal caribou conservation should focus on anthropogenic disturbance, not disturbance-mediated apparent competition. Biological Conservation, 2022, 265, 109426.	4.1	6
3	North American tree migration paced by climate in the West, lagging in the East. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	27
4	MASTREE+: Timeâ€series of plant reproductive effort from six continents. Global Change Biology, 2022, 28, 3066-3082.	9.5	19
5	Aboveâ€•and belowground drivers of intraspecific trait variability across subcontinental gradients for five ubiquitous forest plants in North America. Journal of Ecology, 2022, 110, 1590-1605.	4.0	8
6	Globally, tree fecundity exceeds productivity gradients. Ecology Letters, 2022, 25, 1471-1482.	6.4	11
7	Limits to reproduction and seed size-number trade-offs that shape forest dominance and future recovery. Nature Communications, 2022, 13, 2381.	12.8	21
8	Continent-wide tree fecundity driven by indirect climate effects. Nature Communications, 2021, 12, 1242.	12.8	46
9	Predicting patterns of terrestrial lichen biomass recovery following boreal wildfires. Ecosphere, 2021, 12, e03481.	2.2	8
10	Summary and synthesis of Changing Cold Regions Network (CCRN) research in the interior of western Canada â€“ PartÂ2: Future change in cryosphere, vegetation, and hydrology. Hydrology and Earth System Sciences, 2021, 25, 1849-1882.	4.9	20
11	Carbon loss from boreal forest wildfires offset by increased dominance of deciduous trees. Science, 2021, 372, 280-283.	12.6	127
12	Cascading effects: insights from the U.S. Long Term Ecological Research Network. Ecosphere, 2021, 12, e03430.	2.2	8
13	Alpine Plant Life: Functional Plant Ecology of High Mountain Ecosystems. By Christian KÃ¶rner. Mountain Research and Development, 2021, 41, .	1.0	6
14	Increasing fire and the decline of fire adapted black spruce in the boreal forest. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	107
15	Impacts of pre-fire conifer density and wildfire severity on ecosystem structure and function at the forest-tundra ecotone. PLoS ONE, 2021, 16, e0258558.	2.5	6
16	Broadleaf Litter Controls Feather Moss Growth in Black Spruce and Birch Forests of Interior Alaska. Ecosystems, 2020, 23, 18-33.	3.4	15
17	Climate change decreases the cooling effect from postfire albedo in boreal North America. Global Change Biology, 2020, 26, 1592-1607.	9.5	29
18	A goodness-of-fit test for zero-inflated Poisson mixed effects models in tree abundance studies. Computational Statistics and Data Analysis, 2020, 144, 106887.	1.2	1

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19	Fuel availability not fire weather controls boreal wildfire severity and carbon emissions. Nature Climate Change, 2020, 10, 1130-1136.	18.8	82
20	Patterns of Ecosystem Structure and Wildfire Carbon Combustion Across Six Ecoregions of the North American Boreal Forest. Frontiers in Forests and Global Change, 2020, 3, .	2.3	18
21	Fire characteristics and environmental conditions shape plant communities via regeneration strategy. Ecography, 2020, 43, 1464-1474.	4.5	24
22	Wildfire combustion and carbon stocks in the southern Canadian boreal forest: Implications for a warming world. Global Change Biology, 2020, 26, 6062-6079.	9.5	49
23	Factors shaping alternate successional trajectories in burned black spruce forests of Alaska. Ecosphere, 2020, 11, e03129.	2.2	39
24	Identifying Functional Impacts of Heat-Resistant Fungi on Boreal Forest Recovery After Wildfire. Frontiers in Forests and Global Change, 2020, 3, .	2.3	15
25	Global plant trait relationships extend to the climatic extremes of the tundra biome. Nature Communications, 2020, 11, 1351.	12.8	52
26	Experimental assessment of tree canopy and leaf litter controls on the microbiome and nitrogen fixation rates of two boreal mosses. New Phytologist, 2020, 227, 1335-1349.	7.3	33
27	Reproduction as a bottleneck to treeline advance across the circumarctic forest tundra ecotone. Ecography, 2019, 42, 137-147.	4.5	36
28	Geographic scale and disturbance influence intraspecific trait variability in leaves and roots of North American understorey plants. Functional Ecology, 2019, 33, 1771-1784.	3.6	34
29	Increasing wildfires threaten historic carbon sink of boreal forest soils. Nature, 2019, 572, 520-523.	27.8	293
30	Wildfire severity reduces richness and alters composition of soil fungal communities in boreal forests of western Canada. Global Change Biology, 2019, 25, 2310-2324.	9.5	72
31	Examining forest resilience to changing fire frequency in a fireâ€prone region of boreal forest. Global Change Biology, 2019, 25, 869-884.	9.5	79
32	Traditional plant functional groups explain variation in economic but not sizeâ€related traits across the tundra biome. Global Ecology and Biogeography, 2019, 28, 78-95.	5.8	49
33	Crossâ€scale controls on carbon emissions from boreal forest megafires. Global Change Biology, 2018, 24, 4251-4265.	9.5	60
34	Fuelâ€reduction management alters plant composition, carbon and nitrogen pools, and soil thaw in Alaskan boreal forest. Ecological Applications, 2018, 28, 149-161.	3.8	4
35	Tundra Trait Team: A database of plant traits spanning the tundra biome. Global Ecology and Biogeography, 2018, 27, 1402-1411.	5.8	57
36	Plant functional trait change across a warming tundra biome. Nature, 2018, 562, 57-62.	27.8	451

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37	Spatial and temporal variation in moss-associated dinitrogen fixation in coniferous- and deciduous-dominated Alaskan boreal forests. Plant Ecology, 2018, 219, 837-851.	1.6	17
38	Soil organic layer combustion in boreal black spruce and jack pine stands of the Northwest Territories, Canada. International Journal of Wildland Fire, 2018, 27, 125.	2.4	48
39	BioTIME: A database of biodiversity time series for the Anthropocene. Global Ecology and Biogeography, 2018, 27, 760-786.	5.8	289
40	A novel stochastic method for reconstructing daily precipitation times-series using tree-ring data from the western Canadian Boreal Forest. Dendrochronologia, 2017, 44, 9-18.	2.2	4
41	Patterns of bryophyte succession in a 160-year chronosequence in deciduous and coniferous forests of boreal Alaska. Canadian Journal of Forest Research, 2017, 47, 1021-1032.	1.7	25
42	Moose alter the rate but not the trajectory of forest canopy succession after low and high severity fire in Alaska. Forest Ecology and Management, 2017, 391, 154-163.	3.2	15
43	Temporal coexistence mechanisms contribute to the latitudinal gradient in forest diversity. Nature, 2017, 550, 105-108.	27.8	106
44	Predicting Ecosystem Resilience to Fire from Tree Ring Analysis in Black Spruce Forests. Ecosystems, 2017, 20, 1137-1150.	3.4	24
45	Understory vascular plant community assembly in relation to time-since-fire and environmental variables in a Chinese boreal forest. Journal of Mountain Science, 2017, 14, 1317-1328.	2.0	13
46	Losing Legacies, Ecological Release, and Transient Responses: Key Challenges for the Future of Northern Ecosystem Science. Ecosystems, 2017, 20, 23-30.	3.4	25
47	Impacts of fire on non-native plant recruitment in black spruce forests of interior Alaska. PLoS ONE, 2017, 12, e0171599.	2.5	3
48	What is the most efficient and effective method for long-term monitoring of alpine tundra vegetation?. Arctic Science, 2016, 2, 127-141.	2.3	7
49	Changing disturbance regimes, ecological memory, and forest resilience. Frontiers in Ecology and the Environment, 2016, 14, 369-378.	4.0	947
50	Absence of net longâ€term successional facilitation by alder in a boreal Alaska floodplain. Ecology, 2016, 97, 2986-2997.	3.2	47
51	Biomass offsets little or none of permafrost carbon release from soils, streams, and wildfire: an expert assessment. Environmental Research Letters, 2016, 11, 034014.	5.2	199
52	The changing water cycle: the Boreal Plains ecozone of Western Canada. Wiley Interdisciplinary Reviews: Water, 2015, 2, 505-521.	6.5	63
53	Stable carbon isotope analysis reveals widespread drought stress in boreal black spruce forests. Global Change Biology, 2015, 21, 3102-3113.	9.5	95
54	Disentangling legacy effects from environmental filters of postfire assembly of boreal tree assemblages. Ecology, 2015, 96, 3023-3032.	3.2	42

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55	Tree rings provide early warning signals of jack pine mortality across a moisture gradient in the southern boreal forest. Environmental Research Letters, 2015, 10, 084021.	5.2	21
56	Differences in Ecosystem Carbon Distribution and Nutrient Cycling Linked to Forest Tree Species Composition in a Mid-Successional Boreal Forest. Ecosystems, 2015, 18, 1472-1488.	3.4	39
57	Recovery of Tundra Vegetation Three Decades after Hydrocarbon Drilling with and without Seeding of Non-Native Grasses + Supplementary Appendices (See Article Tools). Arctic, 2015, 68, 16.	0.4	3
58	Widespread negative correlations between black spruce growth and temperature across topographic moisture gradients in the boreal forest. Environmental Research Letters, 2014, 9, 064016.	5.2	78
59	Climate sensitivity of reproduction in a mast-seeding boreal conifer across its distributional range from lowland to treeline forests. Oecologia, 2014, 174, 665-677.	2.0	74
60	Effects of fire severity on plant nutrient uptake reinforce alternate pathways of succession in boreal forests. Plant Ecology, 2013, 214, 587-596.	1.6	50
61	Age and size effects on seed productivity of northern black spruce. Canadian Journal of Forest Research, 2013, 43, 534-543.	1.7	60
62	Distribution of vegetation along environmental gradients on Sable Island, Nova Scotia. Ecoscience, 2013, 20, 361-372.	1.4	38
63	Variable temperature effects of Open Top Chambers at polar and alpine sites explained by irradiance and snow depth. Global Change Biology, 2013, 19, 64-74.	9.5	143
64	Case Study: Novel Socioâ€Ecological Systems in the North: Potential Pathways Toward Ecological and Societal Resilience. , 2013, , 334-344.		6
65	Fire Severity Filters Regeneration Traits to Shape Community Assembly in Alaskaâ€™s Boreal Forest. PLoS ONE, 2013, 8, e56033.	2.5	95
66	The Impacts of Changing Disturbance Regimes on Serotinous Plant Populations and Communities. BioScience, 2013, 63, 866-876.	4.9	105
67	Modeling the effects of fire severity and climate warming on active layer thickness and soil carbon storage of black spruce forests across the landscape in interior Alaska. Environmental Research Letters, 2013, 8, 045016.	5.2	66
68	Controlled Soil Warming Powered by Alternative Energy for Remote Field Sites. PLoS ONE, 2013, 8, e82903.	2.5	5
69	Our plants, our land: bridging aboriginal generations through cross-cultural plant workshops. Polar Geography, 2012, 35, 195-210.	1.9	13
70	Once burned, twice shy: Repeat fires reduce seed availability and alter substrate constraints on Picea mariana regeneration. Forest Ecology and Management, 2012, 266, 34-41.	3.2	145
71	Plot-scale evidence of tundra vegetation change and links to recent summer warming. Nature Climate Change, 2012, 2, 453-457.	18.8	745
72	Explaining Spatial Heterogeneity in Population Dynamics and Genetics from Spatial Variation in Resources for a Large Herbivore. PLoS ONE, 2012, 7, e47858.	2.5	22

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73	Plant Responses to Natural and Experimental Variations in Temperature in Alpine Tundra, Southern Yukon, Canada. Arctic, Antarctic, and Alpine Research, 2011, 43, 442-456.	1.1	23
74	Persistent effects of fire severity on early successional forests in interior Alaska. Forest Ecology and Management, 2011, 261, 381-390.	3.2	85
75	How does increased fire frequency affect carbon loss from fire? A case study in the northern boreal forest. International Journal of Wildland Fire, 2011, 20, 829.	2.4	44
76	Modeling impacts of fire severity on successional trajectories and future fire behavior in Alaskan boreal forests. Landscape Ecology, 2011, 26, 487-500.	4.2	92
77	Environmental effects of oil and gas lease sites in a grassland ecosystem. Journal of Environmental Management, 2011, 92, 195-204.	7.8	34
78	Expansion of Canopy-Forming Willows Over the Twentieth Century on Herschel Island, Yukon Territory, Canada. Ambio, 2011, 40, 610-623.	5.5	91
79	Multi-Decadal Changes in Tundra Environments and Ecosystems: Synthesis of the International Polar Year-Back to the Future Project (IPY-BTF). Ambio, 2011, 40, 705-716.	5.5	98
80	A sensitive slope: estimating landscape patterns of forest resilience in a changing climate. Ecosphere, 2010, 1, art14.	2.2	55
81	Changes in fire regime break the legacy lock on successional trajectories in Alaskan boreal forest. Global Change Biology, 2010, 16, 1281-1295.	9.5	448
82	Resilience of Alaskaâ€™s boreal forest to climatic changeThis article is one of a selection of papers from The Dynamics of Change in Alaskaâ€™s Boreal Forests: Resilience and Vulnerability in Response to Climate Warming.. Canadian Journal of Forest Research, 2010, 40, 1360-1370.	1.7	125
83	Quantifying fire severity, carbon, and nitrogen emissions in Alaska's boreal forest. Ecological Applications, 2010, 20, 1633-1647.	3.8	145
84	Fire, climate change, and forest resilience in interior AlaskaThis article is one of a selection of papers from The Dynamics of Change in Alaska's Boreal Forests: Resilience and Vulnerability in Response to Climate Warming.. Canadian Journal of Forest Research, 2010, 40, 1302-1312.	1.7	306
85	Postfire seed rain of black spruce, a semiserotinous conifer, in forests of interior Alaska. Canadian Journal of Forest Research, 2009, 39, 1575-1588.	1.7	44
86	Environmental Conditions and Vegetation Recovery at Abandoned Drilling Mud Sumps in the Mackenzie Delta Region, Northwest Territories, Canada. Arctic, 2009, 61, .	0.4	10
87	Assessing spatial and temporal variations in surface soil moisture in fire-disturbed black spruce forests in Interior Alaska using spaceborne synthetic aperture radar imagery â€" Implications for post-fire tree recruitment. Remote Sensing of Environment, 2007, 108, 42-58.	11.0	70
88	Directional Changes in Ecological Communities and Socialâ€Ecological Systems: A Framework for Prediction Based on Alaskan Examples. American Naturalist, 2006, 168, S36-S49.	2.1	40
89	Effects of Soil Burn Severity on Post-Fire Tree Recruitment in Boreal Forest. Ecosystems, 2006, 9, 14-31.	3.4	313
90	Fire Interval Effects on Successional Trajectory in Boreal Forests of Northwest Canada. Ecosystems, 2006, 9, 268-277.	3.4	208

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91	Response of boreal plant communities to variations in previous fire-free interval. International Journal of Wildland Fire, 2006, 15, 497.	2.4	36
92	Variation in postfire organic layer thickness in a black spruce forest complex in interior Alaska and its effects on soil temperature and moisture. Canadian Journal of Forest Research, 2005, 35, 2164-2177.	1.7	168
93	Effects of aspen (Populus tremuloides) sucker removal on postfire conifer regeneration in central Alaska. Canadian Journal of Forest Research, 2005, 35, 483-486.	1.7	14
94	Stand-level effects of soil burn severity on postfire regeneration in a recently burned black spruce forest. Canadian Journal of Forest Research, 2005, 35, 2151-2163.	1.7	171
95	Decadal observations of tree regeneration following fire in boreal forests. Canadian Journal of Forest Research, 2004, 34, 267-273.	1.7	203
96	Experimental warming and burn severity alter soil CO2 flux and soil functional groups in a recently burned boreal forest. Global Change Biology, 2004, 10, 1996-2004.	9.5	108
97	Global Change and the Boreal Forest: Thresholds, Shifting States or Gradual Change?. Ambio, 2004, 33, 361-365.	5.5	168
98	Non-equilibrium succession dynamics indicate continued northern migration of lodgepole pine. Global Change Biology, 2003, 9, 1401-1409.	9.5	114
99	Variations in plant forage quality in the range of the Porcupine caribou herd. Rangifer, 2002, 22, 83.	0.6	31
100	SPECIES COMPOSITION INTERACTS WITH FERTILIZER TO CONTROL LONG-TERM CHANGE IN TUNDRA PRODUCTIVITY. Ecology, 2001, 82, 3163-3181.	3.2	271
101	DEVELOPMENTAL PLASTICITY ALLOWSBETULA NANATO DOMINATE TUNDRA SUBJECTED TO AN ALTERED ENVIRONMENT. Ecology, 2001, 82, 18-32.	3.2	181
102	Species Composition Interacts with Fertilizer to Control Long-Term Change in Tundra Productivity. Ecology, 2001, 82, 3163.	3.2	11
103	Retrospective Analysis of Growth and Reproduction in Cassiope tetragona and Relations to Climate in the Canadian High Arctic. Arctic and Alpine Research, 1997, 29, 459.	1.3	54
104	Open-top designs for manipulating field temperature in high-latitude ecosystems. Global Change Biology, 1997, 3, 20-32.	9.5	605