

Jill F Johnstone

List of Publications by Year in descending order

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104
papers

9,997
citations

47006

47
h-index

36028

97
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107
all docs

107
docs citations

107
times ranked

10389
citing authors

#	ARTICLE	IF	CITATIONS
1	Changing disturbance regimes, ecological memory, and forest resilience. <i>Frontiers in Ecology and the Environment</i> , 2016, 14, 369-378.	4.0	947
2	Plot-scale evidence of tundra vegetation change and links to recent summer warming. <i>Nature Climate Change</i> , 2012, 2, 453-457.	18.8	745
3	Open-top designs for manipulating field temperature in high-latitude ecosystems. <i>Global Change Biology</i> , 1997, 3, 20-32.	9.5	605
4	Plant functional trait change across a warming tundra biome. <i>Nature</i> , 2018, 562, 57-62.	27.8	451
5	Changes in fire regime break the legacy lock on successional trajectories in Alaskan boreal forest. <i>Global Change Biology</i> , 2010, 16, 1281-1295.	9.5	448
6	Effects of Soil Burn Severity on Post-Fire Tree Recruitment in Boreal Forest. <i>Ecosystems</i> , 2006, 9, 14-31.	3.4	313
7	Fire, climate change, and forest resilience in interior AlaskaThis article is one of a selection of papers from <i>The Dynamics of Change in Alaska's Boreal Forests: Resilience and Vulnerability in Response to Climate Warming</i> . <i>Canadian Journal of Forest Research</i> , 2010, 40, 1302-1312.	1.7	306
8	Increasing wildfires threaten historic carbon sink of boreal forest soils. <i>Nature</i> , 2019, 572, 520-523.	27.8	293
9	BioTIME: A database of biodiversity time series for the Anthropocene. <i>Global Ecology and Biogeography</i> , 2018, 27, 760-786.	5.8	289
10	SPECIES COMPOSITION INTERACTS WITH FERTILIZER TO CONTROL LONG-TERM CHANGE IN TUNDRA PRODUCTIVITY. <i>Ecology</i> , 2001, 82, 3163-3181.	3.2	271
11	Fire Interval Effects on Successional Trajectory in Boreal Forests of Northwest Canada. <i>Ecosystems</i> , 2006, 9, 268-277.	3.4	208
12	Decadal observations of tree regeneration following fire in boreal forests. <i>Canadian Journal of Forest Research</i> , 2004, 34, 267-273.	1.7	203
13	Biomass offsets little or none of permafrost carbon release from soils, streams, and wildfire: an expert assessment. <i>Environmental Research Letters</i> , 2016, 11, 034014.	5.2	199
14	DEVELOPMENTAL PLASTICITY ALLOWS BETULA NANATO DOMINATE TUNDRA SUBJECTED TO AN ALTERED ENVIRONMENT. <i>Ecology</i> , 2001, 82, 18-32.	3.2	181
15	Stand-level effects of soil burn severity on postfire regeneration in a recently burned black spruce forest. <i>Canadian Journal of Forest Research</i> , 2005, 35, 2151-2163.	1.7	171
16	Global Change and the Boreal Forest: Thresholds, Shifting States or Gradual Change?. <i>Ambio</i> , 2004, 33, 361-365.	5.5	168
17	Variation in postfire organic layer thickness in a black spruce forest complex in interior Alaska and its effects on soil temperature and moisture. <i>Canadian Journal of Forest Research</i> , 2005, 35, 2164-2177.	1.7	168
18	Quantifying fire severity, carbon, and nitrogen emissions in Alaska's boreal forest. <i>Ecological Applications</i> , 2010, 20, 1633-1647.	3.8	145

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19	Once burned, twice shy: Repeat fires reduce seed availability and alter substrate constraints on <i>Picea mariana</i> regeneration. <i>Forest Ecology and Management</i> , 2012, 266, 34-41.	3.2	145
20	Variable temperature effects of Open Top Chambers at polar and alpine sites explained by irradiance and snow depth. <i>Global Change Biology</i> , 2013, 19, 64-74.	9.5	143
21	Carbon loss from boreal forest wildfires offset by increased dominance of deciduous trees. <i>Science</i> , 2021, 372, 280-283.	12.6	127
22	Resilience of Alaska's boreal forest to climatic changeThis 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.. <i>Canadian Journal of Forest Research</i> , 2010, 40, 1360-1370.	1.7	125
23	Non-equilibrium succession dynamics indicate continued northern migration of lodgepole pine. <i>Global Change Biology</i> , 2003, 9, 1401-1409.	9.5	114
24	Experimental warming and burn severity alter soil CO ₂ flux and soil functional groups in a recently burned boreal forest. <i>Global Change Biology</i> , 2004, 10, 1996-2004.	9.5	108
25	Increasing fire and the decline of fire adapted black spruce in the boreal forest. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	107
26	Temporal coexistence mechanisms contribute to the latitudinal gradient in forest diversity. <i>Nature</i> , 2017, 550, 105-108.	27.8	106
27	The Impacts of Changing Disturbance Regimes on Serotinous Plant Populations and Communities. <i>BioScience</i> , 2013, 63, 866-876.	4.9	105
28	Multi-Decadal Changes in Tundra Environments and Ecosystems: Synthesis of the International Polar Year-Back to the Future Project (IPY-BTF). <i>Ambio</i> , 2011, 40, 705-716.	5.5	98
29	Fire Severity Filters Regeneration Traits to Shape Community Assembly in Alaska's Boreal Forest. <i>PLoS ONE</i> , 2013, 8, e56033.	2.5	95
30	Stable carbon isotope analysis reveals widespread drought stress in boreal black spruce forests. <i>Global Change Biology</i> , 2015, 21, 3102-3113.	9.5	95
31	Modeling impacts of fire severity on successional trajectories and future fire behavior in Alaskan boreal forests. <i>Landscape Ecology</i> , 2011, 26, 487-500.	4.2	92
32	Expansion of Canopy-Forming Willows Over the Twentieth Century on Herschel Island, Yukon Territory, Canada. <i>Ambio</i> , 2011, 40, 610-623.	5.5	91
33	Persistent effects of fire severity on early successional forests in interior Alaska. <i>Forest Ecology and Management</i> , 2011, 261, 381-390.	3.2	85
34	Fuel availability not fire weather controls boreal wildfire severity and carbon emissions. <i>Nature Climate Change</i> , 2020, 10, 1130-1136.	18.8	82
35	Examining forest resilience to changing fire frequency in a fire-prone region of boreal forest. <i>Global Change Biology</i> , 2019, 25, 869-884.	9.5	79
36	Widespread negative correlations between black spruce growth and temperature across topographic moisture gradients in the boreal forest. <i>Environmental Research Letters</i> , 2014, 9, 064016.	5.2	78

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37	Climate sensitivity of reproduction in a mast-seeding boreal conifer across its distributional range from lowland to treeline forests. <i>Oecologia</i> , 2014, 174, 665-677.	2.0	74
38	Wildfire severity reduces richness and alters composition of soil fungal communities in boreal forests of western Canada. <i>Global Change Biology</i> , 2019, 25, 2310-2324.	9.5	72
39	Assessing spatial and temporal variations in surface soil moisture in fire-disturbed black spruce forests in Interior Alaska using spaceborne synthetic aperture radar imagery “ Implications for post-fire tree recruitment. <i>Remote Sensing of Environment</i> , 2007, 108, 42-58.	11.0	70
40	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. <i>Environmental Research Letters</i> , 2013, 8, 045016.	5.2	66
41	The changing water cycle: the Boreal Plains ecozone of Western Canada. <i>Wiley Interdisciplinary Reviews: Water</i> , 2015, 2, 505-521.	6.5	63
42	Age and size effects on seed productivity of northern black spruce. <i>Canadian Journal of Forest Research</i> , 2013, 43, 534-543.	1.7	60
43	Cross-scale controls on carbon emissions from boreal forest megafires. <i>Global Change Biology</i> , 2018, 24, 4251-4265.	9.5	60
44	Tundra Trait Team: A database of plant traits spanning the tundra biome. <i>Global Ecology and Biogeography</i> , 2018, 27, 1402-1411.	5.8	57
45	A sensitive slope: estimating landscape patterns of forest resilience in a changing climate. <i>Ecosphere</i> , 2010, 1, art14.	2.2	55
46	Retrospective Analysis of Growth and Reproduction in <i>Cassiope tetragona</i> and Relations to Climate in the Canadian High Arctic. <i>Arctic and Alpine Research</i> , 1997, 29, 459.	1.3	54
47	Global plant trait relationships extend to the climatic extremes of the tundra biome. <i>Nature Communications</i> , 2020, 11, 1351.	12.8	52
48	Effects of fire severity on plant nutrient uptake reinforce alternate pathways of succession in boreal forests. <i>Plant Ecology</i> , 2013, 214, 587-596.	1.6	50
49	Traditional plant functional groups explain variation in economic but not size-related traits across the tundra biome. <i>Global Ecology and Biogeography</i> , 2019, 28, 78-95.	5.8	49
50	Wildfire combustion and carbon stocks in the southern Canadian boreal forest: Implications for a warming world. <i>Global Change Biology</i> , 2020, 26, 6062-6079.	9.5	49
51	Soil organic layer combustion in boreal black spruce and jack pine stands of the Northwest Territories, Canada. <i>International Journal of Wildland Fire</i> , 2018, 27, 125.	2.4	48
52	Absence of net long-term successional facilitation by alder in a boreal Alaska floodplain. <i>Ecology</i> , 2016, 97, 2986-2997.	3.2	47
53	Continent-wide tree fecundity driven by indirect climate effects. <i>Nature Communications</i> , 2021, 12, 1242.	12.8	46
54	Postfire seed rain of black spruce, a semiserotinous conifer, in forests of interior Alaska. <i>Canadian Journal of Forest Research</i> , 2009, 39, 1575-1588.	1.7	44

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55	How does increased fire frequency affect carbon loss from fire? A case study in the northern boreal forest. <i>International Journal of Wildland Fire</i> , 2011, 20, 829.	2.4	44
56	Disentangling legacy effects from environmental filters of postfire assembly of boreal tree assemblages. <i>Ecology</i> , 2015, 96, 3023-3032.	3.2	42
57	Directional Changes in Ecological Communities and Social-Ecological Systems: A Framework for Prediction Based on Alaskan Examples. <i>American Naturalist</i> , 2006, 168, S36-S49.	2.1	40
58	Differences in Ecosystem Carbon Distribution and Nutrient Cycling Linked to Forest Tree Species Composition in a Mid-Successional Boreal Forest. <i>Ecosystems</i> , 2015, 18, 1472-1488.	3.4	39
59	Factors shaping alternate successional trajectories in burned black spruce forests of Alaska. <i>Ecosphere</i> , 2020, 11, e03129.	2.2	39
60	Distribution of vegetation along environmental gradients on Sable Island, Nova Scotia. <i>Ecoscience</i> , 2013, 20, 361-372.	1.4	38
61	Reproduction as a bottleneck to treeline advance across the circumarctic forest tundra ecotone. <i>Ecography</i> , 2019, 42, 137-147.	4.5	36
62	Response of boreal plant communities to variations in previous fire-free interval. <i>International Journal of Wildland Fire</i> , 2006, 15, 497.	2.4	36
63	Environmental effects of oil and gas lease sites in a grassland ecosystem. <i>Journal of Environmental Management</i> , 2011, 92, 195-204.	7.8	34
64	Geographic scale and disturbance influence intraspecific trait variability in leaves and roots of North American understorey plants. <i>Functional Ecology</i> , 2019, 33, 1771-1784.	3.6	34
65	Experimental assessment of tree canopy and leaf litter controls on the microbiome and nitrogen fixation rates of two boreal mosses. <i>New Phytologist</i> , 2020, 227, 1335-1349.	7.3	33
66	Variations in plant forage quality in the range of the Porcupine caribou herd. <i>Rangifer</i> , 2002, 22, 83.	0.6	31
67	Climate change decreases the cooling effect from postfire albedo in boreal North America. <i>Global Change Biology</i> , 2020, 26, 1592-1607.	9.5	29
68	North American tree migration paced by climate in the West, lagging in the East. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	27
69	Patterns of bryophyte succession in a 160-year chronosequence in deciduous and coniferous forests of boreal Alaska. <i>Canadian Journal of Forest Research</i> , 2017, 47, 1021-1032.	1.7	25
70	Losing Legacies, Ecological Release, and Transient Responses: Key Challenges for the Future of Northern Ecosystem Science. <i>Ecosystems</i> , 2017, 20, 23-30.	3.4	25
71	Predicting Ecosystem Resilience to Fire from Tree Ring Analysis in Black Spruce Forests. <i>Ecosystems</i> , 2017, 20, 1137-1150.	3.4	24
72	Fire characteristics and environmental conditions shape plant communities via regeneration strategy. <i>Ecography</i> , 2020, 43, 1464-1474.	4.5	24

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73	Plant Responses to Natural and Experimental Variations in Temperature in Alpine Tundra, Southern Yukon, Canada. <i>Arctic, Antarctic, and Alpine Research</i> , 2011, 43, 442-456.	1.1	23
74	Explaining Spatial Heterogeneity in Population Dynamics and Genetics from Spatial Variation in Resources for a Large Herbivore. <i>PLoS ONE</i> , 2012, 7, e47858.	2.5	22
75	Tree rings provide early warning signals of jack pine mortality across a moisture gradient in the southern boreal forest. <i>Environmental Research Letters</i> , 2015, 10, 084021.	5.2	21
76	Limits to reproduction and seed size-number trade-offs that shape forest dominance and future recovery. <i>Nature Communications</i> , 2022, 13, 2381.	12.8	21
77	Summary and synthesis of Changing Cold Regions Network (CCRN) research in the interior of western Canada – Part 2: Future change in cryosphere, vegetation, and hydrology. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 1849-1882.	4.9	20
78	MASTREE+: Time-series of plant reproductive effort from six continents. <i>Global Change Biology</i> , 2022, 28, 3066-3082.	9.5	19
79	Patterns of Ecosystem Structure and Wildfire Carbon Combustion Across Six Ecoregions of the North American Boreal Forest. <i>Frontiers in Forests and Global Change</i> , 2020, 3, .	2.3	18
80	Spatial and temporal variation in moss-associated dinitrogen fixation in coniferous- and deciduous-dominated Alaskan boreal forests. <i>Plant Ecology</i> , 2018, 219, 837-851.	1.6	17
81	Moose alter the rate but not the trajectory of forest canopy succession after low and high severity fire in Alaska. <i>Forest Ecology and Management</i> , 2017, 391, 154-163.	3.2	15
82	Broadleaf Litter Controls Feather Moss Growth in Black Spruce and Birch Forests of Interior Alaska. <i>Ecosystems</i> , 2020, 23, 18-33.	3.4	15
83	Identifying Functional Impacts of Heat-Resistant Fungi on Boreal Forest Recovery After Wildfire. <i>Frontiers in Forests and Global Change</i> , 2020, 3, .	2.3	15
84	Effects of aspen (<i>Populus tremuloides</i>) sucker removal on postfire conifer regeneration in central Alaska. <i>Canadian Journal of Forest Research</i> , 2005, 35, 483-486.	1.7	14
85	Our plants, our land: bridging aboriginal generations through cross-cultural plant workshops. <i>Polar Geography</i> , 2012, 35, 195-210.	1.9	13
86	Understory vascular plant community assembly in relation to time-since-fire and environmental variables in a Chinese boreal forest. <i>Journal of Mountain Science</i> , 2017, 14, 1317-1328.	2.0	13
87	Species Composition Interacts with Fertilizer to Control Long-Term Change in Tundra Productivity. <i>Ecology</i> , 2001, 82, 3163.	3.2	11
88	Globally, tree fecundity exceeds productivity gradients. <i>Ecology Letters</i> , 2022, 25, 1471-1482.	6.4	11
89	Environmental Conditions and Vegetation Recovery at Abandoned Drilling Mud Sumps in the Mackenzie Delta Region, Northwest Territories, Canada. <i>Arctic</i> , 2009, 61, .	0.4	10
90	Predicting patterns of terrestrial lichen biomass recovery following boreal wildfires. <i>Ecosphere</i> , 2021, 12, e03481.	2.2	8

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91	Cascading effects: insights from the U.S. Long Term Ecological Research Network. <i>Ecosphere</i> , 2021, 12, e03430.	2.2	8
92	Above- and belowground drivers of intraspecific trait variability across subcontinental gradients for five ubiquitous forest plants in North America. <i>Journal of Ecology</i> , 2022, 110, 1590-1605.	4.0	8
93	What is the most efficient and effective method for long-term monitoring of alpine tundra vegetation?. <i>Arctic Science</i> , 2016, 2, 127-141.	2.3	7
94	Case Study: Novel Socio-Ecological Systems in the North: Potential Pathways Toward Ecological and Societal Resilience. , 2013, , 334-344.		6
95	Alpine Plant Life: Functional Plant Ecology of High Mountain Ecosystems. By Christian Körner. Mountain Research and Development, 2021, 41, .	1.0	6
96	Impacts of pre-fire conifer density and wildfire severity on ecosystem structure and function at the forest-tundra ecotone. <i>PLoS ONE</i> , 2021, 16, e0258558.	2.5	6
97	Northern boreal caribou conservation should focus on anthropogenic disturbance, not disturbance-mediated apparent competition. <i>Biological Conservation</i> , 2022, 265, 109426.	4.1	6
98	Controlled Soil Warming Powered by Alternative Energy for Remote Field Sites. <i>PLoS ONE</i> , 2013, 8, e82903.	2.5	5
99	A novel stochastic method for reconstructing daily precipitation times-series using tree-ring data from the western Canadian Boreal Forest. <i>Dendrochronologia</i> , 2017, 44, 9-18.	2.2	4
100	Fuel-reduction management alters plant composition, carbon and nitrogen pools, and soil thaw in Alaskan boreal forest. <i>Ecological Applications</i> , 2018, 28, 149-161.	3.8	4
101	Impacts of fire on non-native plant recruitment in black spruce forests of interior Alaska. <i>PLoS ONE</i> , 2017, 12, e0171599.	2.5	3
102	Recovery of Tundra Vegetation Three Decades after Hydrocarbon Drilling with and without Seeding of Non-Native Grasses + Supplementary Appendices (See Article Tools). <i>Arctic</i> , 2015, 68, 16.	0.4	3
103	Material Legacies and Environmental Constraints Underlie Fire Resilience of a Dominant Boreal Forest Type. <i>Ecosystems</i> , 2023, 26, 473-490.	3.4	2
104	A goodness-of-fit test for zero-inflated Poisson mixed effects models in tree abundance studies. <i>Computational Statistics and Data Analysis</i> , 2020, 144, 106887.	1.2	1