Martin P Girardin

List of Publications by Year
in descending order

76 papers	4,211 citations	100698 35 h-index	111472 62 g-index
87 all docs	87 docs citations	87 times ranked	4583 citing authors

#	Article	IF	Citations
1	Twentieth century redistribution in climatic drivers of global tree growth. Science Advances, 2019, 5, eaat4313.	10.8	321
2	No growth stimulation of Canadaâ€™s boreal forest under half-century of combined warming and CO ₂ fertilization. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8406-E8414.	7.5	243
3	Radial growth response of four dominant boreal tree species to climate along a latitudinal gradient in the eastern Canadian boreal forest. Global Change Biology, 2010, 16, 711-731.	9.6	227
4	Solar UV light regulates flavonoid metabolism in apple (Malus x domestica). Plant, Cell and Environment, 2018, 41, 675-688.	6.0	156
5	Negative impacts of high temperatures on growth of black spruce forests intensify with the anticipated climate warming. Global Change Biology, 2016, 22, 627-643.	9.6	148
6	When tree rings go global: Challenges and opportunities for retro- and prospective insight. Quaternary Science Reviews, 2018, 197, 1-20.	3.1	143
7	Potential changes in forest composition could reduce impacts of climate change on boreal wildfires. Ecological Applications, 2013, 23, 21-35.	3.9	118
8	Control of the multimillennial wildfire size in boreal North America by spring climatic conditions. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20966-20970.	7.5	116
9	Tree rings provide a new class of phenotypes for genetic associations that foster insights into adaptation of conifers to climate change. New Phytologist, 2018, 218, 630-645.	7.8	106
10	Vegetation limits the impact of a warm climate on boreal wildfires. New Phytologist, 2013, 199, 1001-1011.	7.8	105
11	PAST AND FUTURE CHANGES IN CANADIAN BOREAL WILDFIRE ACTIVITY. Ecological Applications, 2008, 18, 391-406.	3.9	104
12	Heterogeneous response of circumboreal wildfire risk to climate change since the early 1900s. Global Change Biology, 2009, 15, 2751-2769.	9.6	103
13	Response of tree growth to a changing climate in boreal central Canada: A comparison of empirical, process-based, and hybrid modelling approaches. Ecological Modelling, 2008, 213, 209-228.	2.5	97
14	Fire in managed forests of eastern Canada: Risks and options. Forest Ecology and Management, 2013, 294, 238-249.	3.3	93
15	Unusual forest growth decline in boreal North America covaries with the retreat of Arctic sea ice. Global Change Biology, 2014, 20, 851-866.	9.6	82
16	North Americaâ€™s oldest boreal trees are more efficient water users due to increased [CO ₂], but do not grow faster. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2749-2754.	7.5	79
17	Adaptive genetic variation to drought in a widely distributed conifer suggests a potential for increasing forest resilience in a drying climate. New Phytologist, 2020, 227, 427-439.	7.8	75
18	Eastern boreal North American wildfire risk of the past 7000 years: A modelâ€‐data comparison. Geophysical Research Letters, 2010, 37, .	3.9	68

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19	How climate change might affect tree regeneration following fire at northern latitudes: a review. New Forests, 2020, 51, 543-571.	1.7	66
20	Regional paleofire regimes affected by non-uniform climate, vegetation and human drivers. Scientific Reports, 2015, 5, 13356.	3.4	64
21	Testing for a CO₂fertilization effect on growth of Canadian boreal forests. Journal of Geophysical Research, 2011, 116, .	3.2	62
22	How to make a tumour: cell type specific dissection ofUstilago maydisâ€induced tumour development in maize leaves. New Phytologist, 2018, 217, 1681-1695.	7.8	57
23	Taxonomy, together with ontogeny and growing conditions, drives needleleaf species' sensitivity to climate in boreal North America. Global Change Biology, 2019, 25, 2793-2809.	9.6	48
24	Guidelines for the use and interpretation of palaeofire reconstructions based on various archives and proxies. Quaternary Science Reviews, 2018, 193, 312-322.	3.1	46
25	Increases in heat-induced tree mortality could drive reductions of biomass resources in Canadaâ€™s managed boreal forest. Landscape Ecology, 2019, 34, 403.	4.1	44
26	Interannual to decadal changes in area burned in Canada from 1781 to 1982 and the relationship to Northern Hemisphere land temperatures. Global Ecology and Biogeography, 2007, 16, 557-566.	5.8	41
27	Changes in mean forest age in Canadaâ€™s forests could limit future increases in area burned but compromise potential harvestable conifer volumes. Canadian Journal of Forest Research, 2017, 47, 755-764.	1.7	41
28	Adverse climatic periods precede and amplify defoliatorâ€induced tree mortality in eastern boreal North America. Journal of Ecology, 2019, 107, 452-467.	4.1	41
29	Unexpected warmingâ€induced growth decline in Thuja occidentalis at its northern limits in North America. Journal of Biogeography, 2015, 42, 1233-1245.	3.0	40
30	Strong overestimation of waterâ€use efficiency responses to rising CO₂ in treeâ€ring studies. Global Change Biology, 2020, 26, 4538-4558.	9.6	40
31	Mitigating risks of future wildfires by management of the forest composition: an analysis of the offsetting potential through boreal Canada. Climatic Change, 2015, 130, 587-601.	3.7	35
32	Paleofire reconstruction based on an ensembleâ€member strategy applied to sedimentary charcoal. Geophysical Research Letters, 2013, 40, 2667-2672.	3.9	33
33	The North American treeâ€ring fireâ€scar network. Ecosphere, 2022, 13, .	2.2	30
34	Three centuries of annual area burned variability in northwestern North America inferred from tree rings. Holocene, 2008, 18, 205-214.	1.7	26
35	Untangling methodological and scale considerations in growth and productivity trend estimates of Canadaâ€™s forests. Environmental Research Letters, 2018, 13, 093001.	5.2	26
36	Multiâ€model projections of tree species performance in Quebec, Canada under future climate change. Global Change Biology, 2022, 28, 1884-1902.	9.6	26

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37	Annual aboveground carbon uptake enhancements from assisted gene flow in boreal black spruce forests are not long-lasting. Nature Communications, 2021, 12, 1169.	13.0	24
38	Light rings as bioindicators of climate change in Interior North America. Global and Planetary Change, 2011, 79, 134-144.	3.5	23
39	Strong Gradients in Forest Sensitivity to Climate Change Revealed by Dynamics of Forest Fire Cycles in the Post Little Ice Age Era. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 2605-2616.	3.0	23
40	Gradually increasing forest fire activity during the Holocene in the northern Ural region (Komi) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622	1.7	23
41	Coherent signature of warming-induced extreme sub-continental boreal wildfire activity 4800 and 1100 years BP. Environmental Research Letters, 2019, 14, 124042.	5.2	23
42	Wildfire size alters longâ€term vegetation trajectories in boreal forests of eastern North America. Journal of Biogeography, 2017, 44, 1268-1279.	3.0	22
43	A national tree-ring data repository for Canadian forests (CFS-TRenD): structure, synthesis, and applications. Environmental Reviews, 2021, 29, 225-241.	4.9	22
44	Adding Tree Rings to North America's National Forest Inventories: An Essential Tool to Guide Drawdown of Atmospheric CO2. BioScience, 2022, 72, 233-246.	4.8	21
45	The pyrogeography of eastern boreal Canada from 1901 to 2012 simulated with the LPJ-LMfire model. Biogeosciences, 2018, 15, 1273-1292.	3.4	20
46	Using height growth to model local and regional response of trembling aspen (Populus tremuloides) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 123-132.	2.5	19
47	In situ Comparison of Tree-Ring Responses to Climate and Population Genetics: The Need to Control for Local Climate and Site Variables. Frontiers in Ecology and Evolution, 2016, 4, .	2.3	19
48	Site index as a predictor of the effect of climate warming on boreal tree growth. Global Change Biology, 2022, 28, 1903-1918.	9.6	19
49	Cold-season freeze frequency is a pervasive driver of subcontinental forest growth. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2117464119.	7.5	19
50	Temporal variability in area burned for the province of Ontario, Canada, during the past 200 years inferred from tree rings. Journal of Geophysical Research, 2006, 111, .	3.2	18
51	Monitoring Climate Sensitivity Shifts in Tree-Rings of Eastern Boreal North America Using Model-Data Comparison. Ecosystems, 2018, 21, 1042-1057.	3.3	18
52	Tree Ring Reconstructions of Stemwood Biomass Indicate Increases in the Growth Rate of Black Spruce Trees Across Boreal Forests of Canada. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 2460-2480.	3.0	18
53	Spatial and temporal heterogeneity of forest site productivity drivers: a case study within the eastern boreal forests of Canada. Landscape Ecology, 2014, 29, 905-918.	4.1	16
54	Post-1980 shifts in the sensitivity of boreal tree growth to North Atlantic Ocean dynamics and seasonal climate. Global and Planetary Change, 2018, 165, 1-12.	3.5	16

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55	Precipitation-driven decrease in wildfires in British Columbia. Regional Environmental Change, 2013, 13, 165-177.	2.9	15
56	Frequency of cool summers in interior North America over the past three centuries. Geophysical Research Letters, 2009, 36, .	3.9	14
57	Recent fire activity in the boreal eastern interior of North America is below that of the past 2000Âyr. Ecosphere, 2018, 9, e02287.	2.2	14
58	Forest Fire-Conducive Drought Variability in the Southern Canadian Boreal Forest and Associated Climatology Inferred from Tree Rings. Canadian Water Resources Journal, 2006, 31, 275-296.	1.3	13
59	Contrasting life-history traits of black spruce and jack pine influence their physiological response to drought and growth recovery in northeastern boreal Canada. Science of the Total Environment, 2021, 794, 148514.	8.1	13
60	Tree-rings, genetics and the environment: Complex interactions at the rear edge of species distribution range. Dendrochronologia, 2021, 69, 125863.	2.3	12
61	Ten new insights in climate science 2022. Global Sustainability, 2022, 5, .	3.3	12
62	Drivers of extreme wildfire years in the 1965â€“2019 fire regime of the TÅ‚Ä±Ì¨chÇ« First Nation territory, Canada. Ecoscience, 2022, 29, 249-265.	1.2	11
63	Wildfire risk inferred from tree rings in the Central Laurentians of boreal Quebec, Canada. Dendrochronologia, 2010, 28, 187-206.	2.3	10
64	Disturbance legacies and paludification mediate the ecological impact of an intensifying wildfire regime in the<scp>C</scp>lay<scp>B</scp>elt boreal forest of eastern<scp>N</scp>orth<scp>A</scp>merica. Journal of Vegetation Science, 2015, 26, 588-602.	2.3	9
65	Projected changes in fire activity and severity feedback in the spruceâ€“feather moss forest of western Quebec, Canada. Trees, Forests and People, 2022, 8, 100229.	1.9	9
66	Increasing atmospheric dryness reduces boreal forest tree growth. Nature Communications, 2023, 14, .	13.0	5
67	A Holocene Perspective of Vegetation Controls on Seasonal Boreal Wildfire Sizes Using Numerical Paleo-Ecology. Frontiers in Forests and Global Change, 2020, 3, .	2.5	4
68	Contrasting Growth Response of Jack Pine and Trembling Aspen to Climate Warming in Quebec Mixedwoods Forests of Eastern Canada Since the Early Twentieth Century. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG005873.	3.0	4
69	Insect defoliation modulates influence of climate on the growth of tree species in the boreal mixed forests of eastern Canada. Ecology and Evolution, 2022, 12, e8656.	1.9	4
70	Influences of climate fluctuations on northeastern North Americaâ€™s burned areas largely outweigh those of European settlement since AD 1850. Environmental Research Letters, 2021, 16, 114007.	5.2	3
71	Les rÃ©servoirs de carbone en forÃªt borÃ©ale Ã lâ€™est du CanadaÂ: acquis et incertitudes dans la modÃ©lisation face aux changements climatiques. VertigO: La Revue Electronique En Sciences De L'environnement, 2012, , .	0.2	1
72	Response of forest productivity to changes in growth and fire regime due to climate change. Canadian Journal of Forest Research, 2023, 53, 663-676.	1.7	1

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73	Unravelling the biogeographic determinants of tree growth sensitivity to freeze and drought in Canada's forests. Journal of Ecology, 2024, 112, 848-869.	4.1	1
74	Boreal forest cover was reduced in the mid-Holocene with warming and recurring wildfires. Communications Earth & Environment, 2024, 5, .	6.7	1
75	Translocating seed sources to new geoclimatic environments has limited effect on lumber quality of eastern Canadian white spruce. Canadian Journal of Forest Research, 0, , .	1.7	0
76	Future carbon sequestration potential in a widespread transcontinental boreal tree species: Standing genetic variation matters!. Global Change Biology, 2024, 30, .	9.6	0