Werner A Kurz

List of Publications by Year
in descending order

107 papers	14,239 citations	66234 42 h-index	33814 99 g-index
119 all docs	119 docs citations	119 times ranked	14285 citing authors

#	Article	IF	Citations
1	A Large and Persistent Carbon Sink in the World's Forests. Science, 2011, 333, 988-993.	6.0	5,393
2	Mountain pine beetle and forest carbon feedback to climate change. Nature, 2008, 452, 987-990.	13.7	1,582
3	FOREST CARBON SINKS IN THE NORTHERN HEMISPHERE. , 2002, 12, 891-899.		696
4	A 70-YEAR RETROSPECTIVE ANALYSIS OF CARBON FLUXES IN THE CANADIAN FOREST SECTOR. , 1999, 9, 526-547.		555
5	Risk of natural disturbances makes future contribution of Canada's forests to the global carbon cycle highly uncertain. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1551-1555.	3.3	431
6	CBM-CFS3: A model of carbon-dynamics in forestry and land-use change implementing IPCC standards. Ecological Modelling, 2009, 220, 480-504.	1.2	403
7	No growth stimulation of Canada'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.	3.3	233
8	An inventory-based analysis of Canada's managed forest carbon dynamics, 1990 to 2008. Global Change Biology, 2011, 17, 2227-2244.	4.2	232
9	Belowground biomass dynamics in the Carbon Budget Model of the Canadian Forest Sector: recent improvements and implications for the estimation of NPP and NEP. Canadian Journal of Forest Research, 2003, 33, 126-136.	0.8	205
10	Boreal forests and tundra. Water, Air, and Soil Pollution, 1993, 70, 39-53.	1.1	197
11	Estimation of root biomass and dynamics for the carbon budget model of the Canadian forest sector. Canadian Journal of Forest Research, 1996, 26, 1973-1979.	0.8	171
12	Animating the Carbon Cycle. Ecosystems, 2014, 17, 344-359.	1.6	168
13	Interannual variability of net ecosystem productivity in forests is explained by carbon flux phenology in autumn. Global Ecology and Biogeography, 2013, 22, 994-1006.	2.7	144
14	Negative impacts of high temperatures on growth of black spruce forests intensify with the anticipated climate warming. Global Change Biology, 2016, 22, 627-643.	4.2	141
15	Quantifying the biophysical climate change mitigation potential of Canada's forest sector. Biogeosciences, 2014, 11, 3515-3529.	1.3	134
16	Factoring out natural and indirect human effects on terrestrial carbon sources and sinks. Environmental Science and Policy, 2007, 10, 370-384.	2.4	132
17	Reconciling estimates of the contemporary North American carbon balance among terrestrial biosphere models, atmospheric inversions, and a new approach for estimating net ecosystem exchange from inventory-based data. Global Change Biology, 2012, 18, 1282-1299.	4.2	116
18	Land surface phenology from optical satellite measurement and CO_2 eddy covariance technique. Journal of Geophysical Research, 2012, 117, .	3.3	106

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19	Reconciling global-model estimates and country reporting of anthropogenic forest CO2 sinks. Nature Climate Change, 2018, 8, 914-920.	8.1	101
20	Relationships between individual-tree mortality and water-balance variables indicate positive trends in water stress-induced tree mortality across North America. Global Change Biology, 2017, 23, 1691-1710.	4.2	100
21	Could increased boreal forest ecosystem productivity offset carbon losses from increased disturbances?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2008, 363, 2259-2268.	1.8	98
22	Estimating direct carbon emissions from Canadian wildland fires. International Journal of Wildland Fire, 2007, 16, 593.	1.0	96
23	Natural climate solutions for Canada. Science Advances, 2021, 7, .	4.7	95
24	Future Spruce Budworm Outbreak May Create a Carbon Source in Eastern Canadian Forests. Ecosystems, 2010, 13, 917-931.	1.6	94
25	Estimating product and energy substitution benefits in national-scale mitigation analyses for Canada. GCB Bioenergy, 2017, 9, 1071-1084.	2.5	83
26	Estimating time since forest harvest using segmented Landsat ETM+ imagery. Remote Sensing of Environment, 2004, 93, 179-187.	4.6	82
27	Developing Canada's National Forest Carbon Monitoring, Accounting and Reporting System to Meet the Reporting Requirements of the Kyoto Protocol. Mitigation and Adaptation Strategies for Global Change, 2006, 11, 33-43.	1.0	78
28	Future quantities and spatial distribution of harvesting residue and dead wood from natural disturbances in Canada. Forest Ecology and Management, 2010, 260, 181-192.	1.4	76
29	TELSA: the Tool for Exploratory Landscape Scenario Analyses. Computers and Electronics in Agriculture, 2000, 27, 227-242.	3.7	74
30	Forest carbon accounting at the operational scale. Forestry Chronicle, 2002, 78, 672-679.	0.5	65
31	National level forest monitoring and modeling in Canada. Progress in Planning, 2004, 61, 365-381.	2.3	65
32	Accelerating regrowth of temperate-maritime forests due to environmental change. Global Change Biology, 2012, 18, 2026-2040.	4.2	65
33	Interannual and spatial impacts of phenological transitions, growing season length, and spring and autumn temperatures on carbon sequestration: A North America flux data synthesis. Global and Planetary Change, 2012, 92-93, 179-190.	1.6	64
34	Climate change mitigation strategies in the forest sector: biophysical impacts and economic implications in British Columbia, Canada. Mitigation and Adaptation Strategies for Global Change, 2018, 23, 257-290.	1.0	60
35	Interannual variability of net carbon exchange is related to the lag between the end-dates of net carbon uptake and photosynthesis: Evidence from long records at two contrasting forest stands. Agricultural and Forest Meteorology, 2012, 164, 29-38.	1.9	59
36	Conntribution of northern forests to the global C cycle: Canada as a case study. Water, Air, and Soil Pollution, 1993, 70, 163-176.	1.1	56

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37	Accounting of forest carbon sinks and sources under a future climate protocol—factoring out past disturbance and management effects on age–class structure. Environmental Science and Policy, 2008, 11, 669-686.	2.4	56
38	The carbon budget of Canadian forests: A sensitivity analysis of changes in disturbance regimes, growth rates, and decomposition rates. Environmental Pollution, 1994, 83, 55-61.	3.7	55
39	North America's net terrestrial CO_2 exchange with the atmosphere 1990–2009. Biogeosciences, 2015, 12, 399-414.	1.3	54
40	Derivation of a spatially explicit 86-year retrospective carbon budget for a landscape undergoing conversion from old-growth to managed forests on Vancouver Island, BC. Forest Ecology and Management, 2008, 256, 1677-1691.	1.4	51
41	Approaches to monitoring changes in carbon stocks for REDD+. Carbon Management, 2013, 4, 519-537.	1.2	49
42	Habitat patterns in forested landscapes: management practices and the uncertainty associated with natural disturbances. Computers and Electronics in Agriculture, 2000, 27, 243-262.	3.7	47
43	Application of the CBM-CFS3 model to estimate Italy's forest carbon budget, 1995–2020. Ecological Modelling, 2013, 266, 144-171.	1.2	47
44	Climate, economic, and environmental impacts of producing wood for bioenergy. Environmental Research Letters, 2018, 13, 050201.	2.2	47
45	Science-based approach for credible accounting of mitigation in managed forests. Carbon Balance and Management, 2018, 13, 8.	1.4	47
46	Effects of harvesting intensity on carbon stocks in eastern Canadian red spruce (Picea rubens) forests: An exploratory analysis using the CBM-CFS3 simulation model. Forest Ecology and Management, 2008, 255, 3632-3641.	1.4	45
47	The carbon implications of large-scale afforestation of agriculturally marginal land with short-rotation willow in Saskatchewan. GCB Bioenergy, 2012, 4, 70-87.	2.5	43
48	Uncertainty of 21st century growing stocks and GHG balance of forests in British Columbia, Canada resulting from potential climate change impacts on ecosystem processes. Forest Ecology and Management, 2011, 262, 827-837.	1.4	42
49	Improved assessment of gross and net primary productivity of Canada's landmass. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 1546-1560.	1.3	41
50	Climate change mitigation potential of local use of harvest residues for bioenergy in Canada. GCB Bioenergy, 2017, 9, 817-832.	2.5	40
51	The European forest sector: past and future carbon budget and fluxes under different management scenarios. Biogeosciences, 2017, 14, 2387-2405.	1.3	38
52	Increasing net ecosystem biomass production of Canada's boreal and temperate forests despite decline in dry climates. Global Biogeochemical Cycles, 2017, 31, 134-158.	1.9	37
53	Delineating managed land for reporting national greenhouse gas emissions and removals to the United Nations framework convention on climate change. Carbon Balance and Management, 2018, 13, 9.	1.4	37
54	Are Mosses Required to Accurately Predict Upland Black Spruce Forest Soil Carbon in National-Scale Forest C Accounting Models?. Ecosystems, 2013, 16, 1071-1086.	1.6	33

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55	Retrospective assessment of carbon flows in Canadian boreal forests. , 1996, , 173-182.		33
56	Large Soil Carbon Storage in Terrestrial Ecosystems of Canada. Global Biogeochemical Cycles, 2022, 36, .	1.9	33
57	A 100-year conservation experiment: Impacts on forest carbon stocks and fluxes. Forest Ecology and Management, 2013, 310, 242-255.	1.4	32
58	Integration of Landsat time series and field plots for forest productivity estimates in decision support models. Forest Ecology and Management, 2016, 376, 284-297.	1.4	32
59	Historic carbon budgets of Ontario's forest ecosystems. Forest Ecology and Management, 2002, 169, 103-114.	1.4	31
60	Temporal changes of forest net primary production and net ecosystem production in west central Canada associated with natural and anthropogenic disturbances. Canadian Journal of Forest Research, 2003, 33, 2340-2351.	0.8	31
61	Modelling forest carbon stock changes as affected by harvest and natural disturbances. II. EU-level analysis. Carbon Balance and Management, 2016, 11, 20.	1.4	30
62	A systems approach to assess climate change mitigation options in landscapes of the United States forest sector. Carbon Balance and Management, 2018, 13, 13.	1.4	29
63	Mapping the environmental limitations to growth of coastal Douglas-fir stands on Vancouver Island, British Columbia. Tree Physiology, 2007, 27, 805-815.	1.4	28
64	An ecosystem context for global gross forest cover loss estimates. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9025-9026.	3.3	27
65	Accelerating Forest Growth Enhancement due to Climate and Atmospheric Changes in British Colombia, Canada over 1956-2001. Scientific Reports, 2015, 4, 4461.	1.6	27
66	Carbon sequestration by white spruce shelterbelts in Saskatchewan, Canada: 3PG and CBM-CFS3 model simulations. Ecological Modelling, 2016, 325, 35-46.	1.2	26
67	Restoring Degraded Lands. Annual Review of Environment and Resources, 2021, 46, 569-599.	5.6	26
68	Potential near-future carbon uptake overcomes losses from a large insect outbreak in British Columbia, Canada. Geophysical Research Letters, 2016, 43, 2590-2598.	1.5	25
69	Carbon budget implications of the transition from natural to manged disturbance regimes in forest landscapes. Mitigation and Adaptation Strategies for Global Change, 1997, 2, 405-421.	1.0	24
70	A generalised approach of accounting for biospheric carbon stock changes under the Kyoto Protocol. Environmental Science and Policy, 2001, 4, 73-85.	2.4	24
71	Estimating net primary production of forests in the Canadian Prairie Provinces using an inventory-based carbon budget model. Canadian Journal of Forest Research, 2002, 32, 161-169.	0.8	24
72	Climate change mitigation in British Columbia's forest sector: GHG reductions, costs, and environmental impacts. Carbon Balance and Management, 2020, 15, 21.	1.4	24

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73	Adaptive cluster sampling for estimation of deforestation rates. European Journal of Forest Research, 2005, 124, 207-220.	1.1	22
74	A practical approach for assessing the sensitivity of the Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3). Ecological Modelling, 2008, 219, 373-382.	1.2	22
75	Modelling forest carbon stock changes as affected by harvest and natural disturbances. I. Comparison with countries' estimates for forest management. Carbon Balance and Management, 2016, 11, 5.	1.4	22
76	Climate and atmospheric drivers of historical terrestrial carbon uptake in the province of British Columbia, Canada. Biogeosciences, 2014, 11, 635-649.	1.3	21
77	Constraining the organic matter decay parameters in the CBM-CFS3 using Canadian National Forest Inventory data and a Bayesian inversion technique. Ecological Modelling, 2017, 364, 1-12.	1.2	21
78	Implications of differing input data sources and approaches upon forest carbon stock estimation. Environmental Monitoring and Assessment, 2010, 166, 543-561.	1.3	20
79	Comparing measured and modelled forest carbon stocks in high-boreal forests of harvest and natural-disturbance origin in Labrador, Canada. Ecological Modelling, 2010, 221, 825-839.	1.2	20
80	If forest dynamics in Canada's west are driven mainly by competition, why did they change? Half-century evidence says: Climate change. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E4340-E4340.	3.3	19
81	Attributing changes in land cover using independent disturbance datasets: a case study of the Yucatan Peninsula, Mexico. Regional Environmental Change, 2016, 16, 213-228.	1.4	19
82	The Canadian model for peatlands (CaMP): A peatland carbon model for national greenhouse gas reporting. Ecological Modelling, 2020, 431, 109164.	1.2	19
83	The European forest carbon budget under future climate conditions and current management practices. Biogeosciences, 2022, 19, 3263-3284.	1.3	19
84	Improving carbon monitoring and reporting in forests using spatially-explicit information. Carbon Balance and Management, 2016, 11, 23.	1.4	18
85	Climate change mitigation in Canada's forest sector: a spatially explicit case study for two regions. Carbon Balance and Management, 2018, 13, 11.	1.4	18
86	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.	1.3	18
87	Carbon dynamics on agricultural land reverting to woody land in Ontario, Canada. Journal of Environmental Management, 2017, 193, 318-325.	3.8	17
88	Applying a systems approach to assess carbon emission reductions from climate change mitigation in Mexico's forest sector. Environmental Research Letters, 2018, 13, 035003.	2.2	17
89	Choice of satellite imagery and attribution of changes to disturbance type strongly affects forest carbon balance estimates. Carbon Balance and Management, 2015, 10, 30.	1.4	16
90	Simulating impacts of water stress on woody biomass in the southern boreal region of western Canada using a dynamic vegetation model. Agricultural and Forest Meteorology, 2014, 198-199, 142-154.	1.9	14

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91	Approximating natural landscape pattern using aggregated harvest. Canadian Journal of Forest Research, 2007, 37, 1846-1853.	0.8	13
92	Cost of climate change mitigation in Canada's forest sector. Canadian Journal of Forest Research, 2017, 47, 604-614.	0.8	13
93	Effects of forest management, harvesting and wood processing on ecosystem carbon dynamics: a boreal case study. , 1996, , 279-292.		13
94	Modelling moss-derived carbon in upland black spruce forests. Canadian Journal of Forest Research, 2016, 46, 520-534.	0.8	12
95	Inward- versus outward-focused bioeconomy strategies for British Columbia's forest products industry: a harvested wood products carbon storage and emission perspective. Carbon Balance and Management, 2021, 16, 30.	1.4	12
96	The impact of tropospheric ozone on landscape-level merchantable biomass and ecosystem carbon in Canadian forests. European Journal of Forest Research, 2013, 132, 71-81.	1.1	11
97	Statistical performance and behaviour of environmentally-sensitive composite models of lodgepole pine growth. Forest Ecology and Management, 2018, 408, 157-173.	1.4	8
98	Land-based emissions. Nature Climate Change, 2021, 11, 382-383.	8.1	8
99	Low Tree-Growth Elasticity of Forest Biomass Indicated by an Individual-Based Model. Forests, 2018, 9, 21.	0.9	7
100	A Canadian upland forest soil profile and carbon stocks database. Ecology, 2018, 99, 989-989.	1.5	6
101	Empirical and Predicted Boreal Forest Carbon Pools Following Stem‐Only Harvesting in Quebec, Canada. Soil Science Society of America Journal, 2019, 83, S59.	1.2	6
102	Cumulative effects of natural and anthropogenic disturbances on the forest carbon balance in the oil sands region of Alberta, Canada; a pilot study (1985–2012). Carbon Balance and Management, 2021, 16, 3.	1.4	4
103	Past and Possible Future Carbon Dynamics of Canada's Boreal Forest Ecosystems. , 1998, , 63-88.		4
104	Deforestation mapping sampling designs for Canadian landscapes. Canadian Journal of Forest Research, 2015, 45, 1564-1576.	0.8	1
105	WG2 Summary: Forests and the global carbon cycle: past, present, and future role. , 1996, , 199-208.		1
106	Projected forest carbon sinks highly vulnerable to increases in natural disturbances. IOP Conference Series: Earth and Environmental Science, 2009, 6, 042020.	0.2	0
107	Bottom-up approaches for estimating terrestrial GHG budgets: Bookkeeping, process-based modeling, and data-driven methods. , 2022, , 59-85.		0