Christian Messier

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6572321/publications.pdf

Version: 2024-02-01

132	12,094	22153	27406
papers	citations	59 h-index	106 g-index

134	134	134	10490
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	For the sake of resilience and multifunctionality, let's diversify planted forests!. Conservation Letters, 2022, 15, e12829.	5.7	124
2	Trimming influences tree light interception and space exploration: contrasted responses of two cultivars of Fraxinus pennsylvanica at various scales of their architecture. Trees - Structure and Function, 2022, 36, 1067-1083.	1.9	1
3	Tree diversity effects on soil microbial biomass and respiration are context dependent across forest diversity experiments. Global Ecology and Biogeography, 2022, 31, 872-885.	5.8	16
4	Light heterogeneity affects understory plant species richness in temperate forests supporting the heterogeneityâ€“diversity hypothesis. Ecology and Evolution, 2022, 12, e8534.	1.9	26
5	Perspectives: Thirty years of triad forestry, a critical clarification of theory and recommendations for implementation and testing. Forest Ecology and Management, 2022, 510, 120103.	3.2	20
6	Managing for the unexpected: Building resilient forest landscapes to cope with global change. Global Change Biology, 2022, 28, 4323-4341.	9.5	21
7	A simple-to-use management approach to boost adaptive capacity of forests to global uncertainty. Forest Ecology and Management, 2021, 481, 118692.	3.2	24
8	Enhanced light interception and light use efficiency explain overyielding in young tree communities. Ecology Letters, 2021, 24, 996-1006.	6.4	24
9	Direct and Indirect Effects of Forest Anthropogenic Disturbance on Above and Below Ground Communities and Litter Decomposition. Ecosystems, 2021, 24, 1716-1737.	3.4	9
10	Complexifying the urban lawn improves heat mitigation and arthropod biodiversity. Urban Forestry and Urban Greening, 2021, 60, 127007.	5.3	21
11	Praise for diversity: A functional approach to reduce risks in urban forests. Urban Forestry and Urban Greening, 2021, 62, 127157.	5.3	31
12	Exotics are more complementary over time in tree biodiversityâ€“ecosystem functioning experiments. Functional Ecology, 2021, 35, 2550.	3.6	2
13	Retention as an integrated biodiversity conservation approach for continuous-cover forestry in Europe. Ambio, 2020, 49, 85-97.	5.5	106
14	The Potential of Agricultural Conversion to Shape Forest Fire Regimes in Mediterranean Landscapes. Ecosystems, 2020, 23, 34-51.	3.4	37
15	Implications of contrasted aboveâ€•and belowâ€ground biomass responses in a diversity experiment with trees. Journal of Ecology, 2020, 108, 405-414.	4.0	18
16	Priority effects will impede range shifts of temperate tree species into the boreal forest. Journal of Ecology, 2020, 108, 1155-1173.	4.0	21
17	Determinants of delayed traumatic tree reiteration growth: Levels of branch growth control and insights for urban tree management, modeling and future research. Urban Forestry and Urban Greening, 2020, 47, 126541.	5.3	3
18	Retention of tree-related microhabitats is more dependent on selection of habitat trees than their spatial distribution. European Journal of Forest Research, 2020, 139, 1015-1028.	2.5	16

#	Article	IF	Citations
19	Functional traits influence biomass and productivity through multiple mechanisms in a temperate secondary forest. European Journal of Forest Research, 2020, 139, 959-968.	2.5	37
20	Convergence of urban forest and socio-economic indicators of resilience: A study of environmental inequality in four major cities in eastern Canada. Landscape and Urban Planning, 2020, 202, 103856.	7.5	10
21	Evaluating forest resilience to global threats using functional response traits and network properties. Ecological Applications, 2020, 30, e02095.	3.8	28
22	Optimizing Reduction Pruning of Trees Under Electrical Lines: The Influence of Intensity and Season of Pruning on Epicormic Branch Growth and Wound Compartmentalization. Arboriculture and Urban Forestry, 2020, 46, 432-449.	0.6	4
23	The functional complex network approach to foster forest resilience to global changes. Forest Ecosystems, 2019, 6, .	3.1	167
24	Sugar maple (Acer saccharum Marsh.) shoot architecture reveals coordinated ontogenetic changes between shoot specialization and branching pattern. Trees - Structure and Function, 2019, 33, 1615-1625.	1.9	5
25	Evergreenness influences fine root growth more than tree diversity in a common garden experiment. Oecologia, 2019, 189, 1027-1039.	2.0	15
26	Crown reaction and acclimation to cyclical V-trimming of city trees: An analysis using terrestrial laser scanning. Urban Forestry and Urban Greening, 2018, 29, 183-191.	5.3	4
27	Synthesis and future research directions linking tree diversity to growth, survival, and damage in a global network of tree diversity experiments. Environmental and Experimental Botany, 2018, 152, 68-89.	4.2	113
28	Moving forward in implementing green infrastructures: Stakeholder perceptions of opportunities and obstacles in a major North American metropolitan area. Cities, 2018, 81, 61-70.	5.6	43
29	Species-specific responses to forest soil inoculum in planted trees in an abandoned agricultural field. Applied Soil Ecology, 2017, 112, 1-10.	4.3	20
30	Spatial complementarity in tree crowns explains overyielding in species mixtures. Nature Ecology and Evolution, 2017, 1, 63.	7.8	285
31	Tree range expansion in eastern North America fails to keep pace with climate warming at northern range limits. Global Change Biology, 2017, 23, 3292-3301.	9.5	104
32	Leaf bacterial diversity mediates plant diversity and ecosystem function relationships. Nature, 2017, 546, 145-147.	27.8	294
33	Do temperate tree species diversity and identity influence soil microbial community function and composition?. Ecology and Evolution, 2017, 7, 7965-7974.	1.9	64
34	Partitioning the effect of composition and diversity of tree communities on leaf litter decomposition and soil respiration. Oikos, 2017, 126, 959-971.	2.7	30
35	Low Light Availability Associated with American Beech Is the Main Factor for Reduced Sugar Maple Seedling Survival and Growth Rates in a Hardwood Forest of Southern Quebec. Forests, 2017, 8, 413.	2.1	17
36	Ectomycorrhizal fungal diversity and saprotrophic fungal diversity are linked to different tree community attributes in a fieldâ€based tree experiment. Molecular Ecology, 2016, 25, 4032-4046.	3.9	95

#	Article	IF	Citations
37	Functional identity is the main driver of diversity effects in young tree communities. Ecology Letters, 2016, 19, 638-647.	6.4	182
38	Avoiding ecosystem collapse in managed forest ecosystems. Frontiers in Ecology and the Environment, 2016, 14, 561-568.	4.0	66
39	Management of vegetation under electric distribution lines will affect the supply of multiple ecosystem services. Land Use Policy, 2016, 51, 66-75.	5.6	17
40	Contributions of a global network of tree diversity experiments to sustainable forest plantations. Ambio, 2016, 45, 29-41.	5.5	203
41	A framework towards a composite indicator for urban ecosystem services. Ecological Indicators, 2016, 60, 38-44.	6.3	83
42	Tree phyllosphere bacterial communities: exploring the magnitude of intra- and inter-individual variation among host species. PeerJ, 2016, 4, e2367.	2.0	85
43	Explaining forest productivity using tree functional traits and phylogenetic information: two sides of the same coin over evolutionary scale?. Ecology and Evolution, 2015, 5, 1774-1783.	1.9	35
44	Nearâ€infrared spectroscopy (<scp>NIRS</scp>) predicts nonâ€structural carbohydrate concentrations in different tissue types of a broad range of tree species. Methods in Ecology and Evolution, 2015, 6, 1018-1025.	5.2	63
45	Globally, functional traits are weak predictors of juvenile tree growth, and we do not know why. Journal of Ecology, 2015, 103, 978-989.	4.0	131
46	From Management to Stewardship: Viewing Forests As Complex Adaptive Systems in an Uncertain World. Conservation Letters, 2015, 8, 368-377.	5.7	183
47	A general framework for the quantification and valuation of ecosystem services of tree-based intercropping systems. Agroforestry Systems, 2014, 88, 679-691.	2.0	61
48	Advancing biodiversityâ€“ecosystem functioning science using high-density tree-based experiments over functional diversity gradients. Oecologia, 2014, 174, 609-621.	2.0	86
49	Diversity increases carbon storage and tree productivity in <scp>S</scp>panish forests. Global Ecology and Biogeography, 2014, 23, 311-322.	5.8	237
50	Can Boreal and Temperate Forest Management be Adapted to the Uncertainties of 21st Century Climate Change?. Critical Reviews in Plant Sciences, 2014, 33, 251-285.	5.7	88
51	REVIEW: Can retention forestry help conserve biodiversity? A metaâ€analysis. Journal of Applied Ecology, 2014, 51, 1669-1679.	4.0	314
52	Root production of hybrid poplars and nitrogen mineralization improve following mounding of boreal Podzols. Canadian Journal of Forest Research, 2013, 43, 1092-1103.	1.7	18
53	Effects of Urbanization on Tree Species Functional Diversity in Eastern North America. Ecosystems, 2013, 16, 1487-1497.	3.4	51
54	Do partial cuts create forest complexity? A new approach to measuring the complexity of forest patterns using photographs and the mean information gain. Forestry Chronicle, 2013, 89, 340-349.	0.6	6

#	Article	IF	Citations
55	Norway maple displays greater seasonal growth and phenotypic plasticity to light than native sugar maple. Tree Physiology, 2012, 32, 1339-1347.	3.1	47
56	Retention Forestry to Maintain Multifunctional Forests: A World Perspective. BioScience, 2012, 62, 633-645.	4.9	633
57	Managing understory light conditions in boreal mixedwoods through variation in the intensity and spatial pattern of harvest: A modelling approach. Forest Ecology and Management, 2011, 261, 84-94.	3.2	61
58	Juvenile growth of hybrid poplars on acidic boreal soil determined by environmental effects of soil preparation, vegetation control, and fertilization. Forest Ecology and Management, 2011, 261, 620-629.	3.2	48
59	Structural changes and potential vertebrate responses following simulated partial harvesting of boreal mixedwood stands. Forest Ecology and Management, 2011, 261, 1362-1371.	3.2	7
60	The effect of biodiversity on tree productivity: from temperate to boreal forests. Global Ecology and Biogeography, 2011, 20, 170-180.	5.8	699
61	Predicting understory maximum shrubs cover using altitude and overstory basal area in different Mediterranean forests. European Journal of Forest Research, 2011, 130, 55-65.	2.5	42
62	Shade tolerance, canopy gaps and mechanisms of coexistence of forest trees. Oikos, 2010, 119, 475-484.	2.7	110
63	The role of plantations in managing the world's forests in the Anthropocene. Frontiers in Ecology and the Environment, 2010, 8, 27-34.	4.0	409
64	Comparing different forest zoning options for landscape-scale management of the boreal forest: Possible benefits of the TRIAD. Forest Ecology and Management, 2010, 259, 418-427.	3.2	83
65	Forest processes from stands to landscapes: exploring model forecast uncertainties using cross-scale model comparison. Canadian Journal of Forest Research, 2010, 40, 2345-2359.	1.7	11
66	TRIAD zoning in Quebec: Experiences and results after 5 years. Forestry Chronicle, 2009, 85, 885-896.	0.6	74
67	Resource and nonâ€•resource root competition effects of grasses on earlyâ€•versus lateâ€•successional trees. Journal of Ecology, 2009, 97, 548-554.	4.0	49
68	Effects of climate on occurrence and size of large fires in a northern hardwood landscape: historical trends, forecasts, and implications for climate change in TÃ©miscamingue, QuÃ©bec. Applied Vegetation Science, 2009, 12, 261-272.	1.9	20
69	Comparison of two plant functional approaches to evaluate natural restoration along an oldâ€•field â€“ deciduous forest chronosequence. Journal of Vegetation Science, 2009, 20, 185-198.	2.2	55
70	Silviculture for old-growth attributes. Forest Ecology and Management, 2009, 258, 525-537.	3.2	483
71	Functional Relationships Between Old-Growth Forest Canopies, Understorey Light and Vegetation Dynamics. Ecological Studies, 2009, , 115-139.	1.2	12
72	Fire and the relative roles of weather, climate and landscape characteristics in the Great Lakesâ€•St. Lawrence forest of Canada. Journal of Vegetation Science, 2008, 19, 57-66.	2.2	35

#	Article	IF	Citations
73	Can plantations develop understory biological and physical attributes of naturally regenerated forests?. Biological Conservation, 2008, 141, 2461-2476.	4.1	86
74	Beech regeneration of seed and root sucker origin: A comparison of morphology, growth, survival, and response to defoliation. Forest Ecology and Management, 2008, 255, 3659-3666.	3.2	36
75	Crown openness as influenced by tree and site characteristics for yellow birch, sugar maple, and eastern hemlock. Canadian Journal of Forest Research, 2008, 38, 488-497.	1.7	23
76	A shade tolerance index for common understory species of northeastern North America. Ecological Indicators, 2007, 7, 195-207.	6.3	88
77	How resilient are northern hardwood forests to human disturbance? An evaluation using a plant functional group approach. Ecoscience, 2007, 14, 259-271.	1.4	58
78	Effect of a major canopy disturbance on the coexistence of Acer saccharum and Fagus grandifolia in the understorey of an old-growth forest. Journal of Ecology, 2007, 95, 458-467.	4.0	56
79	Growth, allocation and leaf gas exchanges of hybrid poplar plants in their establishment phase on previously forested sites: effect of different vegetation management techniques. Annals of Forest Science, 2007, 64, 275-285.	2.0	45
80	The Effects of Spatial Legacies following Shifting Management Practices and Fire on Boreal Forest Age Structure. Ecosystems, 2007, 10, 1261-1277.	3.4	51
81	Can forest management based on natural disturbances maintain ecological resilience?. Canadian Journal of Forest Research, 2006, 36, 2285-2299.	1.7	338
82	Overstory influences on light attenuation patterns and understory plant community diversity and composition in southern boreal forests of Quebec. Canadian Journal of Forest Research, 2006, 36, 2065-2079.	1.7	109
83	Fire and canopy species composition in the Great Lakes-St. Lawrence forest of TÃ©miscamingue, QuÃ©bec. Forest Ecology and Management, 2006, 231, 27-37.	3.2	31
84	Reconciling niche and neutrality: the continuum hypothesis. Ecology Letters, 2006, 9, 399-409.	6.4	635
85	Sapling size influences shade tolerance ranking among southern boreal tree species. Journal of Ecology, 2006, 94, 471-480.	4.0	109
86	Does shade improve light interception efficiency? A comparison among seedlings from shadeâ€tolerant and â€intolerant temperate deciduous tree species. New Phytologist, 2006, 172, 293-304.	7.3	62
87	Growth, biomass allocation, and adventitious roots of balsam fir seedlings growing in closed-canopy stands. Ecoscience, 2006, 13, 89-94.	1.4	3
88	Early above- and below-ground responses of subboreal conifer seedlings to various levels of deciduous canopy removal. Canadian Journal of Forest Research, 2006, 36, 1891-1899.	1.7	16
89	Sustainable management of Canadaâ€™s boreal forests: Progress and prospects. Ecoscience, 2006, 13, 234-248.	1.4	51
90	Light and tree size influence belowground development in yellow birch and sugar maple. Plant and Soil, 2005, 270, 321-330.	3.7	33

#	Article	IF	Citations
91	Interacting influence of light and size on aboveground biomass distribution in sub-boreal conifer saplings with contrasting shade tolerance. Tree Physiology, 2005, 25, 373-384.	3.1	44
92	Population structure and growth acclimation of mountain maple along a successional gradient in the southern boreal forest. Ecoscience, 2005, 12, 540-548.	1.4	23
93	Comparing composition and structure in old-growth and harvested (selection and diameter-limit) Tj ETQq1 1 0.784314 rgBT /Overlock	3.2	147
94	Mountain maple and balsam fir early response to partial and clear-cut harvesting under aspen stands of northern Quebec. Canadian Journal of Forest Research, 2004, 34, 2049-2059.	1.7	27
95	Consequences of various landscape-scale ecosystem management strategies and fire cycles on age-class structure and harvest in boreal forests. Canadian Journal of Forest Research, 2004, 34, 310-322.	1.7	60
96	Understorey light profiles in temperate deciduous forests: recovery process following selection cutting. Journal of Ecology, 2004, 92, 328-338.	4.0	62
97	Physiological, morphological and allocational plasticity in understory deciduous trees: importance of plant size and light availability. Tree Physiology, 2004, 24, 775-784.	3.1	155
98	Use of a spatially explicit individual-tree model (SORTIE/BC) to explore the implications of patchiness in structurally complex forests. Forest Ecology and Management, 2003, 186, 297-310.	3.2	128
99	Shoot growth and crown development: effect of crown position in three-dimensional simulations. Tree Physiology, 2003, 23, 129-136.	3.1	44
100	Do understory sapling respond to both light and below-ground competition?: a field experiment in a north-eastern American hardwood forest and a literature review. Annals of Forest Science, 2003, 60, 749-756.	2.0	64
101	Does soil heterogeneity and compaction in ingrowth-cores affect growth and morphology of black spruce fine-roots?. Communications in Soil Science and Plant Analysis, 2002, 33, 1027-1037.	1.4	4
102	The effect of light availability and basal area on cone production in Abies balsamea and Picea glauca. Canadian Journal of Botany, 2002, 80, 370-377.	1.1	47
103	Patterns of above- and below-ground response of understory conifer release 6 years after partial cutting. Canadian Journal of Forest Research, 2002, 32, 255-265.	1.7	81
104	Growth and crown morphological responses of boreal conifer seedlings and saplings with contrasting shade tolerance to a gradient of light and height. Canadian Journal of Forest Research, 2002, 32, 458-468.	1.7	142
105	Variation in canopy openness and light transmission following selection cutting in northern hardwood stands: an assessment based on hemispherical photographs. Agricultural and Forest Meteorology, 2002, 110, 217-228.	4.8	93
106	Predictions of understorey light conditions in northern hardwood forests following parameterization, sensitivity analysis, and tests of the SORTIE light model. Forest Ecology and Management, 2002, 165, 235-248.	3.2	53
107	Application of the Functional-Structural Tree Model LIGNUM to Sugar Maple Saplings (Acer) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.9	46
108	Effects of light and intraspecific competition on growth and crown morphology of two size classes of understory balsam fir saplings. Forest Ecology and Management, 2001, 140, 215-225.	3.2	73

#	Article	IF	Citations
109	Adaptation of the LIGNUM model for simulations of growth and light response in Jack pine. Forest Ecology and Management, 2001, 150, 279-291.	3.2	22
110	Temporal variations in the understorey photosynthetic photon flux density of a deciduous stand: the effects of canopy development, solar elevation, and sky conditions. Agricultural and Forest Meteorology, 2001, 106, 23-40.	4.8	27
111	Effects of light availability and sapling size on the growth, biomass allocation, and crown morphology of understory sugar maple, yellow birch, and beech. Ecoscience, 2000, 7, 345-356.	1.4	85
112	Light extinction coefficients specific to the understory vegetation of the southern boreal forest, Quebec. Canadian Journal of Forest Research, 2000, 30, 168-177.	1.7	82
113	Leaf- and plant-level carbon gain in yellow birch, sugar maple, and beech seedlings from contrasting forest light environments. Canadian Journal of Forest Research, 2000, 30, 390-404.	1.7	43
114	Effects of adventitious roots on age determination in Balsam fir (Abies balsamea) regeneration. Canadian Journal of Forest Research, 2000, 30, 513-518.	1.7	11
115	Evaluation of Fine Root Length and Diameter Measurements Obtained Using RHIZO Image Analysis. Agronomy Journal, 1999, 91, 142-147.	1.8	96
116	Soil exploitation strategies of fine roots in different tree species of the southern boreal forest of eastern Canada. Canadian Journal of Forest Research, 1999, 29, 260-273.	1.7	94
117	Functional ecology of advance regeneration in relation to light in boreal forests. Canadian Journal of Forest Research, 1999, 29, 812-823.	1.7	301
118	Effects of light availability and sapling size on the growth and crown morphology of understory Douglas-fir and lodgepole pine. Canadian Journal of Forest Research, 1999, 29, 222-231.	1.7	90
119	Possible mechanisms of sugar maple regeneration failure and replacement by beech in the BoisÃ©-des-Muir old-growth forest, QuÃ©bec. Ecoscience, 1999, 6, 264-271.	1.4	47
120	Soil eÃ—ploitation strategies of fine roots in different tree species of the southern boreal forest of eastern Canada. Canadian Journal of Forest Research, 1999, 29, 260-273.	1.7	121
121	Comparison of various methods for estimating the mean growing season percent photosynthetic photon flux density in forests. Agricultural and Forest Meteorology, 1998, 92, 55-70.	4.8	154
122	Growth and morphological responses of yellow birch, sugar maple, and beech seedlings growing under a natural light gradient. Canadian Journal of Forest Research, 1998, 28, 1007-1015.	1.7	194
123	Effects of overstory and understory vegetation on the understory light environment in mixed boreal forests. Journal of Vegetation Science, 1998, 9, 511-520.	2.2	297
124	Abundance, growth and allometry of red raspberry (Rubus idaeus L.) along a natural light gradient in a northern hardwood forest. Forest Ecology and Management, 1996, 81, 153-160.	3.2	58
125	A simple and efficient method to estimate microsite light availability under a forest canopy. Canadian Journal of Forest Research, 1996, 26, 151-154.	1.7	177
126	Spatial and temporal variation in the Bight environment of developing Scots pine stands: the basis for a quick and efficient method of characterizing Bight. Canadian Journal of Forest Research, 1995, 25, 343-354.	1.7	146

#	Article	IF	Citations
127	Effets d'un gradient de lumiÃ¨re sur la croissance en hauteur et la morphologie de la cime du sapin baumier rÃ©gÃ©nÃ©rÃ© naturellement. Canadian Journal of Forest Research, 1995, 25, 878-885.	1.7	62
128	Factors limiting early growth of western redcedar, western hemlock and Sitka spruce seedlings on ericaceous-dominated clearcut sites in coastal British Columbia. Forest Ecology and Management, 1993, 60, 181-206.	3.2	49
129	Above- and below-ground vegetation recovery in recently clearcut and burned sites dominated by Gaultheria shallon in coastal British Columbia. Forest Ecology and Management, 1991, 46, 275-294.	3.2	57
130	Photosynthetic photon flux density, red:far-red ratio, and minimum light requirement for survival of Gaultheriashallon in western red cedarâ€“western hemlock stands in coastal British Columbia. Canadian Journal of Forest Research, 1989, 19, 1470-1477.	1.7	47
131	Light quantity and quality on the forest floor of pioneer and climax stages in a birchâ€“beechâ€“sugar maple stand. Canadian Journal of Forest Research, 1988, 18, 615-622.	1.7	61
132	Patterns of belowground overyielding and fineâ€root biomass in native and exotic angiosperms and gymnosperms. Oikos, 0, , .	2.7	1