Charles D Canham

List of Publications by Year in descending order

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145 papers 18,036 citations

14614 66 h-index 124 g-index

154 all docs

154 docs citations

154 times ranked

11704 citing authors

#	Article	IF	CITATIONS
1	Forest Models Defined by Field Measurements: Estimation, Error Analysis and Dynamics. Ecological Monographs, 1996, 66, 1-43.	2.4	997
2	Light regimes beneath closed canopies and tree-fall gaps in temperate and tropical forests. Canadian Journal of Forest Research, 1990, 20, 620-631.	0.8	792
3	Juvenile Tree Survivorship as a Component of Shade Tolerance. , 1995, 5, 517-532.		717
4	Reconciling niche and neutrality: the continuum hypothesis. Ecology Letters, 2006, 9, 399-409.	3.0	635
5	Causes and consequences of resource heterogeneity in forests: interspecific variation in light transmission by canopy trees. Canadian Journal of Forest Research, 1994, 24, 337-349.	0.8	620
6	Increased tree carbon storage in response to nitrogen deposition in the US. Nature Geoscience, 2010, 3, 13-17.	5.4	582
7	Growth and Canopy Architecture of Shade-Tolerant Trees: Response to Canopy Gaps. Ecology, 1988, 69, 786-795.	1.5	504
8	Forest Ecosystem Responses to Exotic Pests and Pathogens in Eastern North America. BioScience, 2006, 56, 395.	2.2	401
9	A neighborhood analysis of canopy tree competition: effects of shading versus crowding. Canadian Journal of Forest Research, 2004, 34, 778-787.	0.8	393
10	Climate, Deer, Rodents, and Acorns as Determinants of Variation in Lyme-Disease Risk. PLoS Biology, 2006, 4, e145.	2.6	387
11	Forest models defined by field measurements: I. The design of a northeastern forest simulator. Canadian Journal of Forest Research, 1993, 23, 1980-1988.	0.8	385
12	Different Respones to Gaps Among Shade-Tollerant Tree Species. Ecology, 1989, 70, 548-550.	1.5	349
13	Why forests appear resistant to exotic plant invasions: intentional introductions, stand dynamics, and the role of shade tolerance. Frontiers in Ecology and the Environment, 2009, 7, 142-149.	1.9	346
14	Sapling growth as a function of resources in a north temperate forest. Canadian Journal of Forest Research, 1994, 24, 2172-2183.	0.8	317
15	Catastrophic Windthrow in the Presettlement Forests of Wisconsin. Ecology, 1984, 65, 803-809.	1.5	296
16	Nonnative forest insects and pathogens in the United States: Impacts and policy options. Ecological Applications, 2016, 26, 1437-1455.	1.8	289
17	A spatially explicit model of sapling growth in a tropical forest: does the identity of neighbours matter?. Journal of Ecology, 2004, 92, 348-360.	1.9	270
18	Interspecific variation in susceptibility to windthrow as a function of tree size and storm severity for northern temperate tree species. Canadian Journal of Forest Research, 2001, 31, 1-10.	0.8	269

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19	An Index For Understory Light Levels in and Around Canopy Gaps. Ecology, 1988, 69, 1634-1638.	1.5	265
20	EFFECTS OF RODENTS ON SURVIVAL OF TREE SEEDS AND SEEDLINGS INVADING OLD FIELDS. Ecology, 1997, 78, 1531-1542.	1.5	263
21	Interspecific and intraspecific variation in tree seedling survival: effects of allocation to roots versus carbohydrate reserves. Oecologia, 1999, 121, 1-11.	0.9	263
22	Competition vs. Facilitation of Tree Seedling Growth and Survival in Early Successional Communities. Ecology, 1995, 76, 1156-1168.	1.5	232
23	Neighborhood Analyses Of Canopy Tree Competition Along Environmental Gradients In New England Forests., 2006, 16, 540-554.		232
24	A NEIGHBORHOOD ANALYSIS OF TREE GROWTH AND SURVIVAL IN A HURRICANE-DRIVEN TROPICAL FOREST. Ecological Monographs, 2004, 74, 591-614.	2.4	230
25	Biomass allocation and multiple resource limitation in tree seedlings. Canadian Journal of Forest Research, 1996, 26, 1521-1530.	0.8	218
26	Suppression and Release during Canopy Recruitment in Acer saccharum. Bulletin of the Torrey Botanical Club, 1985, 112, 134.	0.6	216
27	The hare, the tortoise and the crocodile: the ecology of angiosperm dominance, conifer persistence and fern filtering. Journal of Ecology, 2005, 93, 918-935.	1.9	182
28	Hemlock woolly adelgid impacts on community structure and N cycling rates in eastern hemlock forests. Canadian Journal of Forest Research, 1999, 29, 630-645.	0.8	181
29	Forest Gaps and Isolated Savanna Trees. BioScience, 1994, 44, 77-84.	2.2	170
30	Species variability in growth response to light across climatic regions in northwestern British Columbia. Canadian Journal of Forest Research, 1998, 28, 871-886.	0.8	166
31	Direct and indirect effects of masting on rodent populations and tree seed survival. Oikos, 2002, 96, 402-410.	1.2	162
32	CANOPY TREEâ€"SOIL INTERACTIONS WITHIN TEMPERATE FORESTS: SPECIES EFFECTS ON SOIL CARBON AND NITROGEN. , 1998, 8, 440-446.		161
33	Invasion of an Old-Growth Forest in New York by Ailanthus altissima: Sapling Growth and Recruitment in Canopy Gaps. Journal of the Torrey Botanical Society, 2000, 127, 307.	0.1	157
34	Suppression and Release During Canopy Recruitment in Fagus grandifolia. Bulletin of the Torrey Botanical Club, 1990, 117, 1.	0.6	145
35	Abiotic and biotic drivers of seedling survival in a hurricaneâ€impacted tropical forest. Journal of Ecology, 2009, 97, 1346-1359.	1.9	142
36	Mechanisms of arrested succession in shrublands: root and shoot competition between shrubs and tree seedlings. Forest Ecology and Management, 1992, 49, 267-275.	1.4	138

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37	Natural disturbance and human land use as determinants of tropical forest dynamics: results from a forest simulator. Ecological Monographs, 2009, 79, 423-443.	2.4	138
38	Effects of Meadow Vole Population Density on Tree Seedling Survival in Oil Fields. Ecology, 1993, 74, 1792-1801.	1.5	137
39	Sapling growth in response to light and nitrogen availability in a southern New England forest. Forest Ecology and Management, 2000, 131, 153-165.	1.4	130
40	Seed abundance versus substrate limitation of seedling recruitment in northern temperate forests of British Columbia. Canadian Journal of Forest Research, 2000, 30, 415-427.	0.8	129
41	Measurement and modeling of spatially explicit variation in light transmission through interior cedar-hemlock forests of British Columbia. Canadian Journal of Forest Research, 1999, 29, 1775-1783.	0.8	128
42	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.	1.4	128
43	Seedling recruitment in a hurricane-driven tropical forest: light limitation, density-dependence and the spatial distribution of parent trees. Journal of Ecology, 2005, 93, 291-304.	1.9	128
44	Do Nutrient Limitation Patterns Shift from Nitrogen Toward Phosphorus with Increasing Nitrogen Deposition Across the Northeastern United States?. Ecosystems, 2012, 15, 940-957.	1.6	128
45	An evaluation of alternative dispersal functions for trees. Journal of Ecology, 2004, 92, 758-766.	1.9	124
46	Analysis Of Neighborhood Dynamics Of Forest Ecosystems Using Likelihood Methods And Modeling. , 2006, 16, 62-73.		123
47	Above―versus belowâ€ground competitive effects and responses of a guild of temperate tree species. Journal of Ecology, 2009, 97, 118-130.	1.9	119
48	Neighbourhood analyses of the allelopathic effects of the invasive tree <i>Ailanthus altissima</i> in temperate forests. Journal of Ecology, 2008, 96, 447-458.	1.9	114
49	A greater range of shadeâ€tolerance niches in nutrientâ€rich forests: an explanation for positive richness–productivity relationships?. Journal of Ecology, 2009, 97, 705-717.	1.9	113
50	Species diversity and ecosystem response to carbon dioxide fertilization: conclusions from a temperate forest model. Global Change Biology, 1995, 1, 373-381.	4.2	111
51	Shade tolerance, canopy gaps and mechanisms of coexistence of forest trees. Oikos, 2010, 119, 475-484.	1.2	110
52	Effects of Environment and Land-Use History on Upland Forests of the Cary Arboretum, Hudson Valley, New York. Bulletin of the Torrey Botanical Club, 1990, 117, 106.	0.6	109
53	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.	0.8	109
54	Density-Dependent Processes in Meadow Voles: An Experimental Approach. Ecology, 1995, 76, 521-532.	1.5	106

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55	Tickâ€borne disease risk in a forest food web. Ecology, 2018, 99, 1562-1573.	1.5	106
56	Canopy tree-soil interactions within temperate forests: effects of soil elemental composition and texture on species distributions. Canadian Journal of Forest Research, 1997, 27, 1110-1116.	0.8	103
57	A SPATIALLY EXPLICIT WATERSHED-SCALE ANALYSIS OF DISSOLVED ORGANIC CARBON IN ADIRONDACK LAKES. , 2004, 14, 839-854.		102
58	Effects of Acorn Production and Mouse Abundance on Abundance and Borrelia burgdorferi Infection Prevalence of Nymphal Ixodes scapularis Ticks. Vector-Borne and Zoonotic Diseases, 2001, 1, 55-63.	0.6	101
59	Effects of suppression and release on sapling growth for 11 tree species of northern, interior British Columbia. Canadian Journal of Forest Research, 2000, 30, 1571-1580.	0.8	95
60	Community organization of tree species along soil gradients in a north-eastern USA forest. Journal of Ecology, 2002, 90, 188-200.	1.9	95
61	Intrinsic density-dependent regulation of vole populations. Nature, 1993, 366, 259-261.	13.7	94
62	Spatio-temporal development of forests - current trends in field methods and models. Oikos, 2004, 107, 3-15.	1.2	93
63	NEIGHBORHOOD MODELS OF THE EFFECTS OF INVASIVE TREE SPECIES ON ECOSYSTEM PROCESSES. Ecological Monographs, 2008, 78, 69-86.	2.4	93
64	Divergence from the growth–survival tradeâ€off and extreme high growth rates drive patterns of exotic tree invasions in closedâ€canopy forests. Journal of Ecology, 2010, 98, 778-789.	1.9	90
65	Non-additive effects of litter mixtures on net N mineralization in a southern New England forest. Forest Ecology and Management, 1998, 105, 129-136.	1.4	87
66	Soil nitrogen availability, plant luxury consumption, and herbivory by white-tailed deer. Oecologia, 2002, 133, 517-524.	0.9	86
67	Species resistance and community response to wind disturbance regimes in northern temperate forests. Journal of Ecology, 2006, 94, 1011-1026.	1.9	80
68	Effects of the frequency, timing, and intensity of simulated browsing on growth and mortality of tree seedlings. Canadian Journal of Forest Research, 1994, 24, 817-825.	0.8	77
69	NEIGHBORHOOD ANALYSES OF SMALL-MAMMAL DYNAMICS: IMPACTS ON SEED PREDATION AND SEEDLING ESTABLISHMENT. Ecology, 2004, 85, 741-755.	1.5	77
70	Responses of a small mammal community to heterogeneity along forest-old-field edges. Landscape Ecology, 1999, 14, 355-367.	1.9	75
71	Variation in Susceptibility to Hurricane Damage as a Function of Storm Intensity in Puerto Rican Tree Species. Biotropica, 2010, 42, 87-94.	0.8	73
72	Sizeâ€dependence of growth and mortality influence the shade tolerance of trees in a lowland temperate rain forest. Journal of Ecology, 2009, 97, 685-695.	1.9	68

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73	The Response of Woody Plants to Disturbance: Patterns of Establishment and Growth. , 1985, , 197-216.		67
74	The Effects of Land-use History on Soil Properties and Nutrient Dynamics in Northern Hardwood Forests of the Adirondack Mountains. Ecosystems, 2004, 7, 193.	1.6	67
75	Climate and competition effects on tree growth in Rocky Mountain forests. Journal of Ecology, 2017, 105, 1636-1647.	1.9	64
76	Patterns and Causes of Resistance to Tree Invasion in Rights-of-Way. , 1995, 5, 459-470.		63
77	Long-Term Effects of Rodent Herbivores on Tree Invasion Dynamics along Forest-Field Edges. Ecology, 2001, 82, 3320.	1.5	60
78	Dispersal and recruitment limitation in native versus exotic tree species: life-history strategies and Janzen-Connell effects. Oikos, 2010, 119, 807-824.	1.2	59
79	Climate drivers of seed production in <i>Picea engelmannii</i> and response to warming temperatures in the southern Rocky Mountains. Journal of Ecology, 2016, 104, 1051-1062.	1.9	54
80	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.	1.4	53
81	Resource heterogeneity in oldfields. Journal of Vegetation Science, 1992, 3, 545-552.	1.1	51
82	Frequency, not relative abundance, of temperate tree species varies along climate gradients in eastern North America. Ecology, 2010, 91, 3433-3440.	1.5	51
83	Occurrence and transmission efficiencies of Borrelia burgdorferi ospC types in avian and mammalian wildlife. Infection, Genetics and Evolution, 2014, 27, 594-600.	1.0	51
84	Nutrient limitation of juvenile trees in a northern hardwood forest: Calcium and nitrate are preeminent. Forest Ecology and Management, 2007, 243, 310-319.	1.4	50
85	Regional variation in forest harvest regimes in the northeastern United States. Ecological Applications, 2013, 23, 515-522.	1.8	50
86	The demography of tree species response to climate: seedling recruitment and survival. Ecosphere, 2016, 7, e01424.	1.0	50
87	CANOPY TREEâ€"SOIL INTERACTIONS WITHIN TEMPERATE FORESTS: SPECIES EFFECTS ON pH AND CATIONS. , 1998, 8, 447-454.		47
88	Quantifying gap dynamics at the patch mosaic level using a spatially-explicit model of a northern hardwood forest ecosystem. Ecological Modelling, 2001, 142, 39-60.	1.2	43
89	Interspecific variation in growth responses to climate andÂcompetition of five eastern tree species. Ecology, 2016, 97, 1003-1011.	1.5	43
90	The demography of tree species response to climate: sapling and canopy tree survival. Ecosphere, 2017, 8, e01701.	1.0	42

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91	Effects of an introduced pathogen on resistance to natural disturbance: beech bark disease and windthrow. Canadian Journal of Forest Research, 2005, 35, 1832-1843.	0.8	41
92	Canopy Tree-Soil Interactions within Temperate Forests: Species Effects on pH and Cations. , 1998, 8, 447.		40
93	The effects of tree seed and seedling density on predation rates by rodents in old fields. Ecoscience, 1998, 5, 183-190.	0.6	40
94	Interactive effects of land use history and natural disturbance on seedling dynamics in a subtropical forest. Ecological Applications, 2010, 20, 1270-1284.	1.8	35
95	LONG-TERM EFFECTS OF RODENT HERBIVORES ON TREE INVASION DYNAMICS ALONG FOREST–FIELD EDGES. Ecology, 2001, 82, 3320-3329.	1.5	34
96	Beech bark disease in northern hardwood forests: the importance of nitrogen dynamics and forest history for disease severity. Canadian Journal of Forest Research, 2003, 33, 257-268.	0.8	34
97	MULTI-MODEL ANALYSIS OF TREE COMPETITION ALONG ENVIRONMENTAL GRADIENTS IN SOUTHERN NEW ENGLAND FORESTS. , 2006, 16, 1880-1892.		32
98	Timber harvest as the predominant disturbance regime in northeastern U.S. forests: effects of harvest intensification. Ecosphere, 2018, 9, e02062.	1.0	32
99	Social and biophysical variation in regional timber harvest regimes. Ecological Applications, 2017, 27, 942-955.	1.8	31
100	Local differentiation in tree growth responses to climate. Ecosphere, 2018, 9, e02368.	1.0	31
101	Landscapeâ€scale densityâ€dependent recruitment of oaks in planted forests: More is not always better. Ecology, 2013, 94, 1718-1728.	1.5	30
102	Competitive hierarchies of temperate tree species: Interactions between resource availability and white-tailed deer. Ecoscience, 2005, 12, 494-505.	0.6	27
103	A MODEL OF SIMULTANEOUS EVOLUTION OF COMPETITIVE ABILITY AND HERBIVORE RESISTANCE IN A PERENNIAL PLANT. Ecology, 2002, 83, 2649-2663.	1.5	26
104	Uncertainty in projecting GHG emissions from bioenergy. Nature Climate Change, 2014, 4, 1045-1047.	8.1	26
105	Centuryâ€scale effects of invasive deer and rodents on the dynamics of forests growing on soils of contrasting fertility. Ecological Monographs, 2015, 85, 157-180.	2.4	26
106	Evaluating the potential of the SORTIE forest succession model for spatio-temporal analysis of small-scale disturbances. Ecological Modelling, 2002, 153, 81-96.	1.2	24
107	Litterfall as a niche construction process in a northern hardwood forest. Ecosphere, 2015, 6, 1-14.	1.0	23
108	Nitrogen deposition and lake nitrogen concentrations: a regional analysis of terrestrial controls and aquatic linkages. Ecosphere, 2012, 3, 1-16.	1.0	21

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109	The demography of tree species response to climate: sapling and canopy tree growth. Ecosphere, 2016, 7, e01474.	1.0	21
110	Forest response to chronic hurricane disturbance in coastal New England. Journal of Vegetation Science, 2009, 20, 487-497.	1.1	20
111	Countervailing effects on pine and oak leaf litter decomposition in human-altered Mediterranean ecosystems. Oecologia, 2015, 177, 1039-1051.	0.9	20
112	Neighbourhood effects on sapling growth and survival in a neotropical forest and the ecological-equivalence hypothesis., 2005,, 89-106.		18
113	Neighbourhood analyses of tree seed predation by introduced rodents in a New Zealand temperate rainforest. Ecography, 2007, 30, 105-119.	2.1	18
114	An exotic insect and pathogen disease complex reduces aboveground tree biomass in temperate forests of eastern North America. Canadian Journal of Forest Research, 2011, 41, 401-411.	0.8	18
115	Spatial and temporal variation in tree seed production and dispersal in a New Zealand temperate rainforest. Ecosphere, 2014, 5, 1-14.	1.0	18
116	The Response of Woody Plants to Disturbance: Patterns of Establishment and Growth., 1985,, 197-216.		17
117	A spatially explicit model of iron loading to lakes. Limnology and Oceanography, 2006, 51, 247-256.	1.6	17
118	Canopy Tree-Soil Interactions within Temperate Forests: Species Effects on Soil Carbon and Nitrogen. , 1998, 8, 440.		16
119	Interspecific variation in growth responses to climate and competition of five eastern tree species. Ecology, 2016, 97, 1003-11.	1.5	16
120	Susceptibility of Trees to Windthrow Storm Damage in Partially Harvested Complex-Structured Multi-Species Forests, 2018, 9, 199.	0.9	14
121	Deer Impacts on Seed Banks and Saplings in Eastern New York. Northeastern Naturalist, 2012, 19, 49-66.	0.1	13
122	A quantitative framework for demographic trends in size-structured populations: analysis of threats to floodplain forests. Ecosphere, 2015, 6, art232.	1.0	13
123	Sustainable management, earthquake disturbances, and transient dynamics: modelling timber harvesting impacts in mixed-species forests. Annals of Forest Science, 2013, 70, 287-298.	0.8	12
124	Canopy Gap Closure in Thickets of the Clonal Shrub, Cornus racemosa. Bulletin of the Torrey Botanical Club, 1993, 120, 439.	0.6	11
125	Integrative ecology and the dynamics of species in oak forests. Integrative Biology: Issues, News, and Reviews, 1998, 1, 178-186.	0.7	11
126	The Influence of Nearest Seed Neighbors on Seed Removal in Deciduous Forests. Northeastern Naturalist, 2012, 19, 43-48.	0.1	11

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127	Biotic and Abiotic Control of the Dynamics of Gray Dogwood (Cornus Racemosa Lam.) Shrub Thickets. Journal of Ecology, 1995, 83, 569.	1.9	10
128	Interactions Between Meadow Voles and White-Footed Mice at Forest—Oldfield Edges: Competition and Net Effects on Tree Invasion of Oldfields. , 1999, , 229-247.		10
129	Legacies of land use history diminish over 22Âyears in a forest in southeastern New York ^{1,} ² . Journal of the Torrey Botanical Society, 2010, 137, 236-251.	0.1	10
130	An Integrative Analysis of the Dynamics of Landscape- and Local-Scale Colonization of Mediterranean Woodlands by Pinus halepensis. PLoS ONE, 2014, 9, e90178.	1.1	10
131	Neighbourhood models of the effects of the invasive Acer platanoides on tree seedling dynamics: linking impacts on communities and ecosystems. Journal of Ecology, 2007, 96, 071119203335005-???.	1.9	9
132	Evidence That Soil Aluminum Enforces Site Fidelity of Southern New England Forest Trees. Rhodora, 2010, 112, 1-21.	0.0	9
133	Peaks in frequency, but not relative abundance, occur in the center of tree species distributions on climate gradients. Ecosphere, 2020, 11, e03149.	1.0	9
134	Neighborhood-Scale Analyses of Non-additive Species Effects on Cation Concentrations in Forest Soils. Ecosystems, 2017, 20, 1351-1363.	1.6	8
135	Does fine scale spatiotemporal variation in seed rain translate into plant population structure?. Oikos, 2022, 2022, .	1.2	8
136	The effects of tree-mycorrhizal type on soil organic matter properties from neighborhood to watershed scales. Soil Biology and Biochemistry, 2021, 161, 108385.	4.2	7
137	Carbon Cycle Implications of Forest Biomass Energy Production in the Northeastern United States. , 2013, , 61-78.		6
138	Simulation Modeling in Ecosystem Science. , 1998, , 404-415.		6
139	Disequilibrium and transient dynamics: disentangling responses to climate change versus broader anthropogenic impacts on temperate forests of eastern North America., 2014,, 109-128.		5
140	Predicting the Formation of a New Upper Canopy Strata after Colonization of Native Shrublands by Pines. Forest Science, 2014, 60, 841-850.	0.5	5
141	Integrative ecology and the dynamics of species in oak forests. , 1998, 1, 178.		2
142	Linkages among canopy tree neighbourhoods, small mammal herbivores and herbaceous communities in temperate forests. Journal of Vegetation Science, 2016, 27, 980-986.	1.1	1
143	A Spatially Explicit, Mass-Balance Analysis of Watershed-Scale Controls on Lake Chemistry. , 2009, , 209-233.		1
144	CANOPY TREEâ€"SOIL INTERACTIONS WITHIN TEMPERATE FORESTS: SPECIES EFFECTS ON SOIL CARBON AND NITROGEN. , 1998, 8, 440.		1

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145	Pattern and process in the afterlife: legacy effects of canopy tree distribution on postâ€disturbance regeneration. Journal of Vegetation Science, 2014, 25, 1313-1314.	1.1	O