Allan L Carroll

List of Publications by Year
in descending order

53 papers	6,106 citations	201674 27 h-index	175258 52 g-index
54 all docs	54 docs citations	54 times ranked	5418 citing authors

#	Article	IF	Citations
1	Mountain pine beetle and forest carbon feedback to climate change. Nature, 2008, 452, 987-990.	27.8	1,582
2	Cross-scale Drivers of Natural Disturbances Prone to Anthropogenic Amplification: The Dynamics of Bark Beetle Eruptions. BioScience, 2008, 58, 501-517.	4.9	1,410
3	Potential for range expansion of mountain pine beetle into the boreal forest of North America. Canadian Entomologist, 2010, 142, 415-442.	0.8	340
4	Surveying mountain pine beetle damage of forests: A review of remote sensing opportunities. Forest Ecology and Management, 2006, 221, 27-41.	3.2	325
5	Efficacy of tree defense physiology varies with bark beetle population density: a basis for positive feedback in eruptive species. Canadian Journal of Forest Research, 2011, 41, 1174-1188.	1.7	250
6	Climate change and range expansion of an aggressive bark beetle: evidence of higher beetle reproduction in naÃ¯ve host tree populations. Journal of Applied Ecology, 2010, 47, 1036-1043.	4.0	215
7	Climate drivers of bark beetle outbreak dynamics in Norway spruce forests. Ecography, 2017, 40, 1426-1435.	4.5	209
8	Landscape level analysis of mountain pine beetle in British Columbia, Canada: spatiotemporal development and spatial synchrony within the present outbreak. Ecography, 2006, 29, 427-441.	4.5	197
9	Movement of outbreak populations of mountain pine beetle: influences of spatiotemporal patterns and climate. Ecography, 2008, 31, 348-358.	4.5	166
10	Climate change could alter the distribution of mountain pine beetle outbreaks in western Canada. Ecography, 2012, 35, 211-223.	4.5	122
11	Breach of the northern Rocky Mountain geoclimatic barrier: initiation of range expansion by the mountain pine beetle. Journal of Biogeography, 2012, 39, 1112-1123.	3.0	109
12	Mountain Pine Beetle Red-Attack Forest Damage Classification Using Stratified Landsat TM Data in British Columbia, Canada. Photogrammetric Engineering and Remote Sensing, 2003, 69, 283-288.	0.6	95
13	Defoliation of interior Douglas-fir elicits carbon transfer and stress signalling to ponderosa pine neighbors through ectomycorrhizal networks. Scientific Reports, 2015, 5, 8495.	3.3	62
14	Interactions between size and temperature influence fecundity and longevity of a tortricid moth, Zeiraphera canadensis. Oecologia, 1993, 93, 233-241.	2.0	61
15	Predicting the risk of mountain pine beetle spread to eastern pine forests: Considering uncertainty in uncertain times. Forest Ecology and Management, 2017, 396, 11-25.	3.2	59
16	Development of an Index of Balsam Fir Vigor by Foliar Spectral Reflectance. Remote Sensing of Environment, 1999, 69, 241-252.	11.0	53
17	Genetic and genomic evidence of niche partitioning and adaptive radiation in mountain pine beetle fungal symbionts. Molecular Ecology, 2017, 26, 2077-2091.	3.9	52
18	Comparison of lodgepole and jack pine resin chemistry: implications for range expansion by the mountain pine beetle,Dendroctonus ponderosae(Coleoptera: Curculionidae). PeerJ, 2014, 2, e240.	2.0	49

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19	Differences in the constitutive terpene profile of lodgepole pine across a geographical range in British Columbia, and correlation with historical attack by mountain pine beetle. Canadian Entomologist, 2010, 142, 557-573.	0.8	46
20	Facilitation in bark beetles: endemic mountain pine beetle gets a helping hand. Agricultural and Forest Entomology, 2011, 13, 37-43.	1.3	44
21	Incoming! Association of landscape features with dispersing mountain pine beetle populations during a range expansion event in western Canada. Landscape Ecology, 2011, 26, 1097-1110.	4.2	44
22	Challenges for the operational detection of mountain pine beetle green attack with remote sensing. Forestry Chronicle, 2009, 85, 32-38.	0.6	40
23	PHYSIOLOGICAL ADAPTATION TO TEMPORAL VARIATION IN CONIFER FOLIAGE BY A CATERPILLAR. Canadian Entomologist, 1999, 131, 659-669.	0.8	37
24	Acoustics of the mountain pine beetle (Dendroctonus ponderosae) (Curculionidae, Scolytinae): sonic, ultrasonic, and vibration characteristics. Canadian Journal of Zoology, 2013, 91, 235-244.	1.0	34
25	Multiyear weather anomalies associated with range shifts by the mountain pine beetle preceding large epidemics. Forest Ecology and Management, 2019, 438, 86-95.	3.2	33
26	The Legacy of Attack: Implications of High Phloem Resin Monoterpene Levels in Lodgepole Pines Following Mass Attack by Mountain Pine Beetle, <I>Dendroctonus ponderosae</I> Hopkins. Environmental Entomology, 2012, 41, 392-398.	1.4	32
27	An approach for the analysis of vegetation spectra using non-linear mixed modeling of truncated power spectra. Annals of Forest Science, 2004, 61, 515-523.	2.0	29
28	Autologistic regression analysis of spatial-temporal binary data via Monte Carlo maximum likelihood. Journal of Agricultural, Biological, and Environmental Statistics, 2008, 13, 84-98.	1.4	28
29	Influence of Feeding by Zeiraphera canadensis (Lepidoptera: Tortricidae) on Growth of White Spruce: Larval Density-Damage and Damage-Shoot Production Relationships. Journal of Applied Ecology, 1993, 30, 629.	4.0	27
30	Intratree Variation in Foliage Development Influences the Foraging Strategy of a Caterpillar. Ecology, 1994, 75, 1978-1990.	3.2	27
31	Fungal associates of the lodgepole pine beetle, Dendroctonus murrayanae. Antonie Van Leeuwenhoek, 2011, 100, 231-244.	1.7	27
32	Characterisation of attacks made by the mountain pine beetle (Coleoptera: Curculionidae) during its endemic population phase. Canadian Entomologist, 2014, 146, 271-284.	0.8	27
33	The influence of variation in host tree monoterpene composition on secondary attraction by an invasive bark beetle: Implications for range expansion and potential host shift by the mountain pine beetle. Forest Ecology and Management, 2016, 359, 59-64.	3.2	27
34	Consequences of distributional asymmetry in a warming environment: invasion of novel forests by the mountain pine beetle. Ecosphere, 2017, 8, e01778.	2.2	25
35	Influence of feeding by Zeiraphera canadensis, the spruce bud moth, on stem-wood growth of young white spruce. Forest Ecology and Management, 1993, 58, 41-49.	3.2	24
36	Bark beetle (Coleoptera: Scolytidae) diversity in spaced and unmanaged mature lodgepole pine (Pinaceae) in southeastern British Columbia. Forest Ecology and Management, 2004, 200, 23-38.	3.2	24

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37	Interactions between body size and mating history influence the reproductive success of males of a tortricid moth, Zeiraphera canadensis. Canadian Journal of Zoology, 1994, 72, 2124-2132.	1.0	22
38	Herbivory modifies conifer phenology: induced amelioration by a specialist folivore. Oecologia, 2003, 136, 88-95.	2.0	20
39	A Disrupted Historical Fire Regime in Central British Columbia. Frontiers in Ecology and Evolution, 2021, 9, .	2.2	20
40	Population dynamics and epidemiology of four species ofDendroctonus(Coleoptera:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622 T	0.8	18
41	SUCROSE INGESTION BY ZEIRAPHERA CANADENSIS MUT. & FREE. (LEPIDOPTERA: TORTRICIDAE) INCREASES LONGEVITY AND LIFETIME FECUNDITY BUT NOT OVIPOSITION RATE. Canadian Entomologist, 1992, 124, 335-340.	0.8	16
42	Selection of entomopathogenic fungus Beauveria bassiana (Deuteromycotina: Hyphomycetes) for the biocontrol of Dendroctonus ponderosae (Coleoptera: Curculionidae, Scolytinae) in Western Canada. Applied Microbiology and Biotechnology, 2021, 105, 2541-2557.	3.6	12
43	Breeding matters: Natal experience influences population state-dependent host acceptance by an eruptive insect herbivore. PLoS ONE, 2017, 12, e0172448.	2.5	12
44	Managing Wildlife Habitat: Complex Interactions With Biotic and Abiotic Disturbances. Frontiers in Ecology and Evolution, 2021, 9, .	2.2	11
45	Rating Introgression between Lodgepole and Jack Pine at the Individual Tree Level Using Morphological Traits. Northern Journal of Applied Forestry, 2011, 28, 138-145.	0.5	9
46	Numbers matter: how irruptive bark beetles initiate transition to self-sustaining behavior during landscape-altering outbreaks. Oecologia, 2022, 198, 681-698.	2.0	9
47	Life history of a secondary bark beetle, Pseudips mexicanus (Coleoptera: Curculionidae:) Tj ETQq1 1 0.784314 rgBT /Overlock	0.8	8
48	Landscape predictions of western balsam bark beetle activity implicate warm temperatures, a longer growing season, and drought in widespread irruptions across British Columbia. Forest Ecology and Management, 2022, 508, 120047.	3.2	7
49	Climateâ€induced outbreaks in highâ€elevation pines are driven primarily by immigration of bark beetles from historical hosts. Global Change Biology, 2021, 27, 5786-5805.	9.5	5
50	Patterns of infestation by subcortical insects (Coleoptera: Buprestidae, Cerambycidae) after widespread wildfires in mature Douglas-fir (Pseudotsuga menziesii) forests. Forest Ecology and Management, 2022, 513, 120203.	3.2	3
51	Insights into herbivore distribution and abundance: oviposition preferences of western hemlock and phantom hemlock loopers. Canadian Entomologist, 2011, 143, 72-81.	0.8	2
52	In the Pursuit of Synchrony: Northward Shifts in Western Spruce Budworm Outbreaks in a Warming Environment. Frontiers in Forests and Global Change, 2022, 5, .	2.3	1
53	Movement of outbreak populations of mountain pine beetle: influences of spatiotemporal patterns and climate. Ecography, 2008, .	4.5	0