

Richard L Lindroth

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194
papers

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198
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12,631
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#	Paper	IF	Citations
194	Herbivory in global climate change research: direct effects of rising temperature on insect herbivores. <i>Global Change Biology</i> , 2002 , 8, 1-16	11.4	1546
193	A framework for community and ecosystem genetics: from genes to ecosystems. <i>Nature Reviews Genetics</i> , 2006 , 7, 510-23	30.1	790
192	COMMUNITY AND ECOSYSTEM GENETICS: A CONSEQUENCE OF THE EXTENDED PHENOTYPE. <i>Ecology</i> , 2003 , 84, 559-573	4.6	506
191	Responses of Dicotyledonous Trees to Elevated Atmospheric CO ₂ : Productivity, Phytochemistry, and Insect Performance. <i>Ecology</i> , 1993 , 74, 763-777	4.6	296
190	Genetically based trait in a dominant tree affects ecosystem processes. <i>Ecology Letters</i> , 2004 , 7, 127-134	10	291
189	Altered performance of forest pests under atmospheres enriched by CO ₂ and O ₃ . <i>Nature</i> , 2002 , 420, 403-7	50.4	248
188	Genome-wide analysis of the structural genes regulating defense phenylpropanoid metabolism in <i>Populus</i> . <i>New Phytologist</i> , 2006 , 172, 47-62	9.8	222
187	Consequences of climate warming and altered precipitation patterns for plant-insect and multitrophic interactions. <i>Plant Physiology</i> , 2012 , 160, 1719-27	6.6	206
186	Impacts of elevated atmospheric CO ₂ and O ₃ on forests: phytochemistry, trophic interactions, and ecosystem dynamics. <i>Journal of Chemical Ecology</i> , 2010 , 36, 2-21	2.7	206
185	Clonal variation in foliar chemistry of aspen: effects on gypsy moths and forest tent caterpillars. <i>Oecologia</i> , 1997 , 111, 99-108	2.9	169
184	Intraspecific variation in aspen phytochemistry: effects on performance of gypsy moths and forest tent caterpillars. <i>Oecologia</i> , 1995 , 103, 79-88	2.9	160
183	Effects of genotype, nutrient availability, and defoliation on aspen phytochemistry and insect performance. <i>Journal of Chemical Ecology</i> , 2001 , 27, 1289-313	2.7	151
182	From Genes to Ecosystems: The Genetic Basis of Condensed Tannins and Their Role in Nutrient Regulation in a <i>Populus</i> Model System. <i>Ecosystems</i> , 2008 , 11, 1005-1020	3.9	147
181	Genetic Identity of <i>Populus tremuloides</i> Litter Influences Decomposition and Nutrient Release in a Mixed Forest Stand. <i>Ecosystems</i> , 2006 , 9, 528-537	3.9	143
180	Age-related shifts in leaf chemistry of clonal aspen (<i>Populus tremuloides</i>). <i>Journal of Chemical Ecology</i> , 2006 , 32, 1415-29	2.7	135
179	Foliar quality influences tree-herbivore-parasitoid interactions: effects of elevated CO ₂ , O ₃ , and plant genotype. <i>Oecologia</i> , 2003 , 137, 233-44	2.9	129
178	Genotype and environment determine allocation to and costs of resistance in quaking aspen. <i>Oecologia</i> , 2006 , 148, 293-303	2.9	123

177	Importance of species interactions to community heritability: a genetic basis to trophic-level interactions. <i>Ecology Letters</i> , 2006 , 9, 78-85	10	118
176	Competition- and resource-mediated tradeoffs between growth and defensive chemistry in trembling aspen (<i>Populus tremuloides</i>). <i>New Phytologist</i> , 2006 , 169, 561-70	9.8	117
175	Elevated atmospheric CO ₂ : effects on phytochemistry, insect performance and insect-parasitoid interactions. <i>Global Change Biology</i> , 1995 , 1, 173-182	11.4	115
174	Plant phenolics as chemical defenses: Effects of natural phenolics on survival and growth of prairie voles (<i>Microtus ochrogaster</i>). <i>Journal of Chemical Ecology</i> , 1984 , 10, 229-44	2.7	115
173	Chemical Ecology of the Tiger Swallowtail: Mediation of Host Use by Phenolic Glycosides. <i>Ecology</i> , 1988 , 69, 814-822	4.6	114
172	Effects of CO ₂ and light on tree phytochemistry and insect performance. <i>Oikos</i> , 2000 , 88, 259-272	4	106
171	Effects of Light and Nutrient Availability on Aspen: Growth, Phytochemistry, and Insect Performance. <i>Journal of Chemical Ecology</i> , 1999 , 25, 1687-1714	2.7	106
170	Adaptations of quaking aspen (<i>Populus tremuloides</i> Michx.) for defense against herbivores. <i>Forest Ecology and Management</i> , 2013 , 299, 14-21	3.9	105
169	Consequences of elevated carbon dioxide and ozone for foliar chemical composition and dynamics in trembling aspen (<i>Populus tremuloides</i>) and paper birch (<i>Betula papyrifera</i>). <i>Environmental Pollution</i> , 2001 , 115, 395-404	9.3	100
168	EFFECTS OF CO ₂ AND NO ₃ AVAILABILITY ON DECIDUOUS TREES: PHYTOCHEMISTRY AND INSECT PERFORMANCE. <i>Ecology</i> , 1997 , 78, 215-230	4.6	99
167	Genetics, environment, and their interaction determine efficacy of chemical defense in trembling aspen. <i>Ecology</i> , 2007 , 88, 729-39	4.6	99
166	BEAVERS AS MOLECULAR GENETICISTS: A GENETIC BASIS TO THE FORAGING OF AN ECOSYSTEM ENGINEER. <i>Ecology</i> , 2004 , 85, 603-608	4.6	99
165	Resistance and tolerance in <i>Populus tremuloides</i> : genetic variation, costs, and environmental dependency. <i>Evolutionary Ecology</i> , 2007 , 21, 829-847	1.8	97
164	Host plant genetics affect hidden ecological players: links among <i>Populus</i> , condensed tannins, and fungal endophyte infection. <i>Canadian Journal of Botany</i> , 2005 , 83, 356-361		93
163	Seasonal patterns in the phytochemistry of three <i>Populus</i> species. <i>Biochemical Systematics and Ecology</i> , 1987 , 15, 681-686	1.4	90
162	Effects of CO ₂ -mediated changes in paper birch and white pine chemistry on gypsy moth performance. <i>Oecologia</i> , 1994 , 98, 133-138	2.9	87
161	Effects of phytochemical variation in quaking aspen <i>Populus tremuloides</i> clones on gypsy moth <i>Lymantria dispar</i> performance in the field and laboratory. <i>Ecological Entomology</i> , 2000 , 25, 197-207	2.1	86
160	Clonal variation in foliar chemistry of quaking aspen (<i>Populus tremuloides</i> Michx.). <i>Biochemical Systematics and Ecology</i> , 1996 , 24, 357-364	1.4	83

159	Long-term effects of defoliation on quaking aspen in relation to genotype and nutrient availability: plant growth, phytochemistry and insect performance. <i>Oecologia</i> , 2004 , 139, 55-65	2.9	81
158	Effects of elevated carbon dioxide and ozone on the phytochemistry of aspen and performance of an herbivore. <i>Oecologia</i> , 2003 , 134, 95-103	2.9	81
157	Enriched atmospheric CO ₂ and defoliation: effects on tree chemistry and insect performance. <i>Global Change Biology</i> , 1998 , 4, 419-430	11.4	75
156	Induced resistance in the indeterminate growth of aspen (<i>Populus tremuloides</i>). <i>Oecologia</i> , 2005 , 145, 298-306	2.9	75
155	Rising concentrations of atmospheric CO ₂ have increased growth in natural stands of quaking aspen (<i>Populus tremuloides</i>). <i>Global Change Biology</i> , 2009 , 16, 2186-2197	11.4	71
154	Simulated climate warming alters phenological synchrony between an outbreak insect herbivore and host trees. <i>Oecologia</i> , 2014 , 175, 1041-9	2.9	67
153	Genotypic variation in response of quaking aspen (<i>Populus tremuloides</i>) to atmospheric CO ₂ enrichment. <i>Oecologia</i> , 2001 , 126, 371-379	2.9	66
152	Relative importance of genetic, ontogenetic, induction, and seasonal variation in producing a multivariate defense phenotype in a foundation tree species. <i>Oecologia</i> , 2012 , 170, 695-707	2.9	65
151	Spectroscopic determination of ecologically relevant plant secondary metabolites. <i>Methods in Ecology and Evolution</i> , 2016 , 7, 1402-1412	7.7	64
150	Developmental trajectories in cottonwood phytochemistry. <i>Journal of Chemical Ecology</i> , 2006 , 32, 2269-85	6.3	63
149	Responses of the Gypsy Moth (Lepidoptera: Lymantriidae) to Tremulacin, an Aspen Phenolic Glycoside. <i>Environmental Entomology</i> , 1990 , 19, 842-847	2.1	63
148	Biochemical ecology of the forest tent caterpillar: responses to dietary protein and phenolic glycosides. <i>Oecologia</i> , 1991 , 86, 408-413	2.9	59
147	Characterization of phenolic glycosides from quaking aspen. <i>Biochemical Systematics and Ecology</i> , 1987 , 15, 677-680	1.4	59
146	Aphid individual performance may not predict population responses to elevated CO ₂ or O ₃ . <i>Global Change Biology</i> , 2004 , 10, 1414-1423	11.4	58
145	Removal of invasive shrubs reduces exotic earthworm populations. <i>Biological Invasions</i> , 2009 , 11, 663-671.7	5.7	57
144	CO ₂ and O ₃ effects on host plant preferences of the forest tent caterpillar (<i>Malacosoma disstria</i>). <i>Global Change Biology</i> , 2005 , 11, 588-599	11.4	56
143	Genetic mosaics of ecosystem functioning across aspen-dominated landscapes. <i>Oecologia</i> , 2009 , 160, 119-27	2.9	55
142	Effects of Phenolic Glycosides and Protein on Gypsy Moth (Lepidoptera: Lymantriidae) and Forest Tent Caterpillar (Lepidoptera: Lasiocampidae) Performance and Detoxication Activities. <i>Environmental Entomology</i> , 2000 , 29, 1108-1115	2.1	55

141	Variation in temperature and dietary nitrogen affect performance of the gypsy moth (<i>Lymantria dispar</i> L.). <i>Physiological Entomology</i> , 1997 , 22, 55-64	1.9	54
140	Canopy herbivory can mediate the influence of plant genotype on soil processes through frass deposition. <i>Soil Biology and Biochemistry</i> , 2007 , 39, 1192-1201	7.5	53
139	Imaging spectroscopy links aspen genotype with below-ground processes at landscape scales. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014 , 369, 20130194	5.8	52
138	Soil microbial communities adapt to genetic variation in leaf litter inputs. <i>Oikos</i> , 2011 , 120, 1696-1704	4	51
137	Consequences of Enriched Atmospheric CO ₂ and Defoliation for Foliar Chemistry and Gypsy Moth Performance. <i>Journal of Chemical Ecology</i> , 1998 , 24, 1677-1695	2.7	51
136	Differential toxicity of a phenolic glycoside from quaking aspen to <i>Papilio glaucus</i> butterfly subspecies, hybrids and backcrosses. <i>Oecologia</i> , 1989 , 81, 186-191	2.9	51
135	Independent, Interactive, and Species-Specific Responses of Leaf Litter Decomposition to Elevated CO ₂ and O ₃ in a Northern Hardwood Forest. <i>Ecosystems</i> , 2008 , 11, 505-519	3.9	50
134	Fourteen years of population fluctuations of <i>Microtus ochrogaster</i> and <i>M. pennsylvanicus</i> in east central Illinois. <i>Canadian Journal of Zoology</i> , 1987 , 65, 1317-1325	1.5	50
133	Elevated atmospheric carbon dioxide and ozone alter forest insect abundance and community composition. <i>Insect Conservation and Diversity</i> , 2008 , 1, 233-241	3.8	49
132	Responses of trembling aspen (<i>Populus tremuloides</i>) phytochemistry and aspen blotch leafminer (<i>Phyllonorycter tremuloidiella</i>) performance to elevated levels of atmospheric CO ₂ and O ₃ . <i>Agricultural and Forest Entomology</i> , 2003 , 5, 17-26	1.9	49
131	Within- and between-year variation in early season phytochemistry of quaking aspen (<i>Populus tremuloides</i> Michx.) clones. <i>Biochemical Systematics and Ecology</i> , 2000 , 28, 197-208	1.4	49
130	CO ₂ -Mediated Changes in Tree Chemistry and Tree-Lepidoptera Interactions 1996 , 105-120		49
129	Increased nitrogen availability influences predator-prey interactions by altering host-plant quality. <i>Chemoecology</i> , 2010 , 20, 277-284	2	48
128	Rapid shifts in the chemical composition of aspen forests: an introduced herbivore as an agent of natural selection. <i>Biological Invasions</i> , 2007 , 9, 715-722	2.7	48
127	Rapid modulation of ultraviolet shielding in plants is influenced by solar ultraviolet radiation and linked to alterations in flavonoids. <i>Plant, Cell and Environment</i> , 2016 , 39, 222-30	8.4	48
126	Forest gene diversity is correlated with the composition and function of soil microbial communities. <i>Population Ecology</i> , 2011 , 53, 35-46	2.1	45
125	Extrafloral nectaries in aspen (<i>Populus tremuloides</i>): heritable genetic variation and herbivore-induced expression. <i>Annals of Botany</i> , 2007 , 100, 1337-46	4.1	45
124	Condensed tannins increase nitrogen recovery by trees following insect defoliation. <i>New Phytologist</i> , 2015 , 208, 410-20	9.8	43

123	Experimental climate warming alters aspen and birch phytochemistry and performance traits for an outbreak insect herbivore. <i>Global Change Biology</i> , 2015 , 21, 2698-2710	11.4	43
122	Effects of variable phytochemistry and budbreak phenology on defoliation of aspen during a forest tent caterpillar outbreak. <i>Agricultural and Forest Entomology</i> , 2008 , 10, 399-410	1.9	43
121	Aspen Decline, Aspen Chemistry, and Elk Herbivory: Are They Linked?. <i>Rangelands</i> , 2008 , 30, 17-21	1.1	43
120	Atmospheric change alters foliar quality of host trees and performance of two outbreak insect species. <i>Oecologia</i> , 2012 , 168, 863-76	2.9	42
119	Hydrolysis of phenolic glycosides by midgut β -glucosidases in <i>Papilio glaucus</i> subspecies. <i>Insect Biochemistry</i> , 1988 , 18, 789-792		42
118	Incidence of <i>Venturia</i> shoot blight in aspen (<i>Populus tremuloides</i> Michx.) varies with tree chemistry and genotype. <i>Biochemical Systematics and Ecology</i> , 2009 , 37, 139-145	1.4	41
117	Divergent pheromone-mediated insect behaviour under global atmospheric change. <i>Global Change Biology</i> , 2004 , 10, 1820-1824	11.4	41
116	Genetic variation in response of the gypsy moth to aspen phenolic glycosides. <i>Biochemical Systematics and Ecology</i> , 1991 , 19, 97-103	1.4	41
115	Qualitative variation in proanthocyanidin composition of <i>Populus</i> species and hybrids: genetics is the key. <i>Journal of Chemical Ecology</i> , 2011 , 37, 57-70	2.7	40
114	Aspen defense chemicals influence midgut bacterial community composition of gypsy moth. <i>Journal of Chemical Ecology</i> , 2015 , 41, 75-84	2.7	39
113	Decomposition of <i>Betula papyrifera</i> leaf litter under the independent and interactive effects of elevated CO ₂ and O ₃ . <i>Global Change Biology</i> , 2004 , 10, 1666-1677	11.4	39
112	Nutrient deficiencies and the gypsy moth, <i>Lymantria dispar</i> : Effects on larval performance and detoxication enzyme activities. <i>Journal of Insect Physiology</i> , 1991 , 37, 45-52	2.4	39
111	Diversity, Redundancy, and Multiplicity in Chemical Defense Systems of Aspen 1996 , 25-56		39
110	Cottonwood Leaf Beetle (Coleoptera: Chrysomelidae) Performance in Relation to Variable Phytochemistry in Juvenile Aspen (<i>Populus tremuloides</i> Michx.). <i>Environmental Entomology</i> , 2004 , 33, 1505-1511	2.1	38
109	Effects of protein and juglone on gypsy moths: Growth performance and detoxification enzyme activity. <i>Journal of Chemical Ecology</i> , 1990 , 16, 2533-47	2.7	38
108	CO ₂ and O ₃ Effects on Paper Birch (<i>Betulaceae:Betula papyrifera</i>) Phytochemistry and Whitemarked Tussock Moth (<i>Lymantriidae:Orgyia leucostigma</i>) Performance. <i>Environmental Entomology</i> , 2001 , 30, 1119-1126	2.1	37
107	Host plant alteration of detoxication activity in <i>Papilio glaucus glaucus</i> . <i>Entomologia Experimentalis Et Applicata</i> , 1989 , 50, 29-35	2.1	37
106	Lespedeza phenolics and Penstemon alkaloids: Effects on digestion efficiencies and growth of voles. <i>Journal of Chemical Ecology</i> , 1986 , 12, 713-28	2.7	37

105	Consequences of clonal variation in aspen phytochemistry for late season folivores. <i>Ecoscience</i> , 1998 , 5, 508-516	1.1	36
104	Preservation of salicaceae leaves for phytochemical analyses: Further assessment. <i>Journal of Chemical Ecology</i> , 1996 , 22, 765-71	2.7	36
103	Effects of winter temperatures, spring degree-day accumulation, and insect population source on phenological synchrony between forest tent caterpillar and host trees. <i>Forest Ecology and Management</i> , 2016 , 362, 241-250	3.9	35
102	Browse quality in quaking Aspen (<i>Populus tremuloides</i>): effects of genotype, nutrients, defoliation, and coppicing. <i>Journal of Chemical Ecology</i> , 2007 , 33, 1049-64	2.7	35
101	A comparative analysis of phenylpropanoid metabolism, N utilization, and carbon partitioning in fast- and slow-growing <i>Populus</i> hybrid clones. <i>Journal of Experimental Botany</i> , 2009 , 60, 3443-52	7	34
100	Dietary Phenolics Affects Performance of the Gypsy Moth (Lepidoptera: Lymantriidae) and Its Parasitoid <i>Cotesia melanoscela</i> (Hymenoptera: Braconidae). <i>Environmental Entomology</i> , 1997 , 26, 668-671 ¹	2.1	34
99	Consequences of Elevated Atmospheric CO ₂ for Forest Insects 1996 , 347-361		34
98	Impacts of elevated CO ₂ and O ₃ on aspen leaf litter chemistry and earthworm and springtail productivity. <i>Soil Biology and Biochemistry</i> , 2010 , 42, 1132-1137	7.5	32
97	Influences of atmospheric CO ₂ enrichment on the responses of sugar maple and trembling aspen to defoliation. <i>New Phytologist</i> , 1998 , 140, 85-94	9.8	32
96	CO. <i>Oecologia</i> , 1999 , 119, 389	2.9	32
95	Rapid phytochemical analysis of birch (<i>Betula</i>) and poplar (<i>Populus</i>) foliage by near-infrared reflectance spectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2013 , 405, 1333-44	4.4	31
94	Patterns of phytochemical variation in <i>Mimulus guttatus</i> (yellow monkeyflower). <i>Journal of Chemical Ecology</i> , 2013 , 39, 525-36	2.7	30
93	Atmospheric change alters performance of an invasive forest insect. <i>Global Change Biology</i> , 2012 , 18, 3543-3557	11.4	30
92	Effects of Paper Birch Condensed Tannin on Whitemarked Tussock Moth (Lepidoptera: Lymantriidae) Performance. <i>Environmental Entomology</i> , 2002 , 31, 10-14	2.1	30
91	Genotype and soil nutrient environment influence aspen litter chemistry and in-stream decomposition. <i>Freshwater Science</i> , 2012 , 31, 1244-1253	2	29
90	Inducible Plant Chemical Defences: A Cause of Vole Population Cycles?. <i>Journal of Animal Ecology</i> , 1986 , 55, 431	4.7	29
89	Influence of Genotype, Environment, and Gypsy Moth Herbivory on Local and Systemic Chemical Defenses in Trembling Aspen (<i>Populus tremuloides</i>). <i>Journal of Chemical Ecology</i> , 2015 , 41, 651-61	2.7	28
88	Tri-trophic effects of plant defenses: chickadees consume caterpillars based on host leaf chemistry. <i>Oikos</i> , 2006 , 114, 507-517	4	27

87	A high-resolution genetic map of yellow monkeyflower identifies chemical defense QTLs and recombination rate variation. <i>G3: Genes, Genomes, Genetics</i> , 2014 , 4, 813-21	3.2	26
86	Transgenerational phenotypic plasticity under future atmospheric conditions. <i>Ecology Letters</i> , 2004 , 7, 941-946	10	26
85	Response of quaking aspen genotypes to enriched CO ₂ : foliar chemistry and tussock moth performance. <i>Agricultural and Forest Entomology</i> , 2002 , 4, 315-323	1.9	26
84	Secondary Plant Compounds in Seedling and Mature Aspen (<i>Populus tremuloides</i>) in Yellowstone National Park, Wyoming. <i>American Midland Naturalist</i> , 2001 , 145, 299-308	0.7	24
83	Differential toxicity of juglone (5-hydroxy-1,4-naphthoquinone) and related naphthoquinones to saturniid moths. <i>Journal of Chemical Ecology</i> , 1994 , 20, 1631-41	2.7	24
82	Chemical ecology of the luna moth : Effects of host plant on detoxification enzyme activity. <i>Journal of Chemical Ecology</i> , 1989 , 15, 2019-29	2.7	23
81	Effects of foliar phenolics and ascorbic acid on performance of the gypsy moth (<i>Lymantria dispar</i>). <i>Biochemical Systematics and Ecology</i> , 1994 , 22, 341-351	1.4	22
80	Transgenerational effects of herbivory in a group of long-lived tree species: maternal damage reduces offspring allocation to resistance traits, but not growth. <i>Journal of Ecology</i> , 2013 , 101, 1062-1073	6	21
79	Behavioral archives link the chemistry and clonal structure of trembling aspen to the food choice of North American porcupine. <i>Oecologia</i> , 2009 , 160, 687-95	2.9	21
78	Plant genotypic diversity and environmental stress interact to negatively affect arthropod community diversity. <i>Arthropod-Plant Interactions</i> , 2009 , 3, 249-258	2.2	21
77	Soil carbon and nitrogen mineralization following deposition of insect frass and greenfall from forests under elevated CO ₂ and O ₃ . <i>Plant and Soil</i> , 2010 , 336, 75-85	4.2	21
76	The Impact of Genomics on Advances in Herbivore Defense and Secondary Metabolism in <i>Populus</i> 2010 , 279-305		21
75	Genotypic variation in plant traits shapes herbivorous insect and ant communities on a foundation tree species. <i>PLoS ONE</i> , 2018 , 13, e0200954	3.7	20
74	CO and light effects on deciduous trees: growth, foliar chemistry, and insect performance. <i>Oecologia</i> , 1999 , 119, 389-399	2.9	20
73	Interactions between Bacteria And Aspen Defense Chemicals at the Phyllosphere - Herbivore Interface. <i>Journal of Chemical Ecology</i> , 2016 , 42, 193-201	2.7	19
72	Atmospheric change, plant secondary metabolites and ecological interactions	120-153	19
71	Responses of deciduous broadleaf trees to defoliation in a CO ₂ enriched atmosphere. <i>Tree Physiology</i> , 2002 , 22, 435-48	4.2	19
70	Independent and interactive effects of plant genotype and environment on plant traits and insect herbivore performance: A meta-analysis with Salicaceae. <i>Functional Ecology</i> , 2019 , 33, 422-435	5.6	19

69	Effects of Elevated Atmospheric Carbon Dioxide and Tropospheric Ozone on Phytochemical Composition of Trembling Aspen (<i>Populus tremuloides</i>) and Paper Birch (<i>Betula papyrifera</i>). <i>Journal of Chemical Ecology</i> , 2017 , 43, 26-38	2.7	18
68	Differential esterase activity in <i>Papilio glaucus</i> subspecies: Absence of cross-resistance between allelochemicals and insecticides. <i>Pesticide Biochemistry and Physiology</i> , 1989 , 35, 185-191	4.9	18
67	Herbivore-mediated material fluxes in a northern deciduous forest under elevated carbon dioxide and ozone concentrations. <i>New Phytologist</i> , 2014 , 204, 397-407	9.8	17
66	Interactive effects of condensed tannin and cellulose additions on soil respiration. <i>Canadian Journal of Forest Research</i> , 2007 , 37, 2063-2067	1.9	17
65	Detoxication of some naturally occurring phenolics by prairie voles: a rapid assay of glucuronidation metabolism. <i>Biochemical Systematics and Ecology</i> , 1983 , 11, 405-409	1.4	17
64	Chemical defense over decadal scales: Ontogenetic allocation trajectories and consequences for fitness in a foundation tree species. <i>Functional Ecology</i> , 2019 , 33, 2105-2115	5.6	16
63	Elevated CO ₂ interacts with herbivory to alter chlorophyll fluorescence and leaf temperature in <i>Betula papyrifera</i> and <i>Populus tremuloides</i> . <i>Oecologia</i> , 2012 , 169, 905-13	2.9	16
62	Linking plant genes to insect communities: Identifying the genetic bases of plant traits and community composition. <i>Molecular Ecology</i> , 2019 , 28, 4404-4421	5.7	15
61	Heterozygosity, gender, and the growth-defense trade-off in quaking aspen. <i>Oecologia</i> , 2016 , 181, 381-409	9.0	15
60	Phytochemical Variation in Quaking Aspen: Effects on Gypsy Moth Susceptibility to Nuclear Polyhedrosis Virus. <i>Journal of Chemical Ecology</i> , 1999 , 25, 1331-1341	2.7	15
59	Adaptations of Mammalian Herbivores to Plant Chemical Defenses 1988 , 415-445		15
58	Phenylpropanoid glycosides of <i>Mimulus guttatus</i> (yellow monkeyflower). <i>Phytochemistry Letters</i> , 2014 , 10, 132-139	1.9	14
57	Detoxication activity in the gypsy moth: Effects of host CO ₂ and NO ₃ ⁻ availability. <i>Journal of Chemical Ecology</i> , 1993 , 19, 357-67	2.7	14
56	Condensed tannin biosynthesis and polymerization synergistically condition carbon use, defense, sink strength and growth in <i>Populus</i> . <i>Tree Physiology</i> , 2014 , 34, 1240-51	4.2	13
55	Effects of genotype, elevated CO ₂ and elevated O ₃ on aspen phytochemistry and aspen leaf beetle <i>Chrysomela crotchi</i> performance. <i>Agricultural and Forest Entomology</i> , 2010 , 12, 267	1.9	13
54	Climate Change and Temporal and Spatial Mismatches in Insect Communities 2009 , 215-231		13
53	Phytochemical traits underlie genotypic variation in susceptibility of quaking aspen (<i>Populus tremuloides</i>) to browsing by a keystone forest ungulate. <i>Journal of Ecology</i> , 2016 , 104, 850-863	6	12
52	Atmospheric change alters frass quality of forest canopy herbivores. <i>Arthropod-Plant Interactions</i> , 2014 , 8, 33-47	2.2	12

51	Small mammal activity alters plant community composition and microbial activity in an old-field ecosystem. <i>Ecosphere</i> , 2017 , 8, e01777	3.1	12
50	Modeling nitrogen flux by larval insect herbivores from a temperate hardwood forest. <i>Oecologia</i> , 2007 , 153, 833-43	2.9	12
49	Purification and Analysis of Salicinoids. <i>Current Analytical Chemistry</i> , 2018 , 14, 423-429	1.7	12
48	Genetic variation in aspen phytochemical patterns structures windows of opportunity for gypsy moth larvae. <i>Oecologia</i> , 2018 , 187, 471-482	2.9	11
47	Root chemistry in <i>Populus tremuloides</i> : effects of soil nutrients, defoliation, and genotype. <i>Journal of Chemical Ecology</i> , 2014 , 40, 31-8	2.7	10
46	Elevated carbon dioxide and ozone have weak, idiosyncratic effects on herbivorous forest insect abundance, species richness, and community composition. <i>Insect Conservation and Diversity</i> , 2014 , 7, 553-562	3.8	10
45	Vernal freeze damage and genetic variation alter tree growth, chemistry, and insect interactions. <i>Plant, Cell and Environment</i> , 2017 , 40, 2743-2753	8.4	10
44	Performance of the invasive weevil <i>Polydrusus sericeus</i> is influenced by atmospheric CO ₂ and host species. <i>Agricultural and Forest Entomology</i> , 2010 , 12, 285	1.9	10
43	Growing up aspen: ontogeny and trade-offs shape growth, defence and reproduction in a foundation species. <i>Annals of Botany</i> , 2021 , 127, 505-517	4.1	10
42	Genotypic differences and prior defoliation affect re-growth and phytochemistry after coppicing in <i>Populus tremuloides</i> . <i>Journal of Chemical Ecology</i> , 2012 , 38, 306-14	2.7	9
41	Effects of CO ₂ and NO ₃ - Availability on Deciduous Trees: Phytochemistry and Insect Performance. <i>Ecology</i> , 1997 , 78, 215	4.6	9
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39	Growth and chemical responses of trembling aspen to simulated browsing and ungulate saliva. <i>Journal of Plant Ecology</i> , 2016 , 9, 474-484	1.7	8
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36	Altered growth and fine root chemistry of <i>Betula papyrifera</i> and <i>Acer saccharum</i> under elevated CO ₂ . <i>Canadian Journal of Forest Research</i> , 2003 , 33, 842-846	1.9	7
35	Impacts of Atmospheric Change on Tree-Arthropod Interactions. <i>Developments in Environmental Science</i> , 2013 , 13, 227-248		6
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32	Experimental Approaches for Assessing Invertebrate Responses to Global Change Factors 2016 , 30-45		6
31	Analysis of condensed tannins in <i>Populus</i> spp. using reversed phase UPLC-PDA(-)-ESI-MS following thiolytic depolymerisation. <i>Phytochemical Analysis</i> , 2019 , 30, 257-267	3.4	6
30	The Occurrence of Sulfated Salicinoids in Poplar and Their Formation by Sulfotransferase1. <i>Plant Physiology</i> , 2020 , 183, 137-151	6.6	5
29	Divergent host plant utilization by adults and offspring is related to intra-plant variation in chemical defences. <i>Journal of Animal Ecology</i> , 2019 , 88, 1789-1798	4.7	5
28	Genetic down-regulation of gibberellin results in semi-dwarf poplar but few non-target effects on chemical resistance and tolerance to defoliation. <i>Journal of Plant Ecology</i> , 2019 , 12, 124-136	1.7	5
27	Trait plasticity and trade-offs shape intra-specific variation in competitive response in a foundation tree species. <i>New Phytologist</i> , 2021 , 230, 710-719	9.8	5
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25	Large effect quantitative trait loci for salicinoid phenolic glycosides in : Implications for gene discovery. <i>Ecology and Evolution</i> , 2018 , 8, 3726-3737	2.8	4
24	Host genetics and environment shape fungal pathogen incidence on a foundation forest tree species, <i>Populus tremuloides</i> . <i>Canadian Journal of Forest Research</i> , 2016 , 46, 1167-1172	1.9	4
23	Arthropod community similarity in clonal stands of aspen: A test of the genetic similarity rule. <i>Ecoscience</i> , 2012 , 19, 48-58	1.1	4
22	Herbivory in a World of Elevated CO2 2005 , 468-486		4
21	Coordinated resource allocation to plant growth-defense tradeoffs. <i>New Phytologist</i> , 2021 ,	9.8	4
20	Clonal Saplings of Trembling Aspen Do Not Coordinate Defense Induction. <i>Journal of Chemical Ecology</i> , 2018 , 44, 1045-1050	2.7	4
19	Genetic variation in tree leaf chemistry predicts the abundance and activity of autotrophic soil microorganisms. <i>Ecosphere</i> , 2019 , 10, e02795	3.1	3
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17	Altered genotypic and phenotypic frequencies of aphid populations under enriched CO2 and O3 atmospheres. <i>Global Change Biology</i> , 2005 , 11, 051013014052002-???	11.4	3
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15	Influence of global atmospheric change on the feeding behavior and growth performance of a mammalian herbivore, <i>Microtus ochrogaster</i> . <i>PLoS ONE</i> , 2013 , 8, e72717	3.7	2
14	Individual growth rates do not predict aphid population densities under altered atmospheric conditions. <i>Agricultural and Forest Entomology</i> , 2010 , 12, no-no	1.9	2
13	Beavers, Bugs and Chemistry: A Mammalian Herbivore Changes Chemistry Composition and Arthropod Communities in Foundation Tree Species. <i>Forests</i> , 2021 , 12, 877	2.8	2
12	Spatial, genetic and biotic factors shape within-crown leaf trait variation and herbivore performance in a foundation tree species. <i>Functional Ecology</i> , 2021 , 35, 54-66	5.6	2
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10	Root Secondary Metabolites in <i>Populus tremuloides</i> : Effects of Simulated Climate Warming, Defoliation, and Genotype. <i>Journal of Chemical Ecology</i> , 2021 , 47, 313-321	2.7	2
9	Phenological responses to prior-season defoliation and soil-nutrient availability vary among early- and late-flushing aspen (<i>Populus tremuloides</i> Michx.) genotypes. <i>Forest Ecology and Management</i> , 2020 , 458, 117771	3.9	1
8	Local adaptation and rapid evolution of aphids in response to genetic interactions with their cottonwood hosts. <i>Ecology and Evolution</i> , 2020 , 10, 10532-10542	2.8	1
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