Jarmo Holopainen

List of Publications by Year
in descending order

214 papers	10,214 citations	34016 52 h-index	49773 87 g-index
220 all docs	220 docs citations	220 times ranked	7643 citing authors

#	Article	IF	Citations
1	An amorphous solid state of biogenic secondary organic aerosol particles. Nature, 2010, 467, 824-827.	13.7	719
2	Multiple stress factors and the emission of plant VOCs. Trends in Plant Science, 2010, 15, 176-184.	4.3	715
3	Multiple functions of inducible plant volatiles. Trends in Plant Science, 2004, 9, 529-533.	4.3	325
4	Smelling global climate change: mitigation of function for plant volatile organic compounds. Trends in Ecology and Evolution, 2009, 24, 323-331.	4.2	192
5	Birch (<i>Betula</i> spp.) leaves adsorb and reâ€release volatiles specific to neighbouring plants â€“ a mechanism for associational herbivore resistance?. New Phytologist, 2010, 186, 722-732.	3.5	165
6	Comparing the VOC emissions between air-dried and heat-treated Scots pine wood. Atmospheric Environment, 2002, 36, 1763-1768.	1.9	164
7	Emission of Plutella xylostella-Induced Compounds from Cabbages Grown at Elevated CO2 and Orientation Behavior of the Natural Enemies. Plant Physiology, 2004, 135, 1984-1992.	2.3	157
8	Olfactory responses of Plutella xylostella natural enemies to host pheromone, larval frass, and green leaf cabbage volatiles. Journal of Chemical Ecology, 2002, 28, 131-143.	0.9	150
9	Plant volatiles in polluted atmospheres: stress responses and signal degradation. Plant, Cell and Environment, 2014, 37, 1892-1904.	2.8	150
10	Plant Volatile Organic Compounds (VOCs) in Ozone (O3) Polluted Atmospheres: The Ecological Effects. Journal of Chemical Ecology, 2010, 36, 22-34.	0.9	148
11	Contrasting effects of elevated carbon dioxide concentration and temperature on Rubisco activity, chlorophyll fluorescence, needle ultrastructure and secondary metabolites in conifer seedlings. Tree Physiology, 2003, 23, 97-108.	1.4	144
12	Climate Change Effects on Secondary Compounds of Forest Trees in the Northern Hemisphere. Frontiers in Plant Science, 2018, 9, 1445.	1.7	135
13	Ozone Degrades Common Herbivore-Induced Plant Volatiles: Does This Affect Herbivore Prey Location by Predators and Parasitoids?. Journal of Chemical Ecology, 2007, 33, 683-694.	0.9	128
14	From Plants to Birds: Higher Avian Predation Rates in Trees Responding to Insect Herbivory. PLoS ONE, 2008, 3, e2832.	1.1	128
15	Where do herbivore-induced plant volatiles go?. Frontiers in Plant Science, 2013, 4, 185.	1.7	120
16	Application of methyl jasmonate reduces growth but increases chemical defence and resistance against Hylobius abietis in Scots pine seedlings. Entomologia Experimentalis Et Applicata, 2005, 115, 117-124.	0.7	110
17	Concentrations of secondary compounds in Scots pine needles at different stages of decomposition. Soil Biology and Biochemistry, 2002, 34, 37-42.	4.2	109
18	Bright autumn colours of deciduous trees attract aphids: nutrient retranslocation hypothesis. Oikos, 2002, 99, 184-188.	1.2	102

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19	Covariation and phenotypic integration in chemical communication displays: biosynthetic constraints and ecoâ€evolutionary implications. New Phytologist, 2018, 220, 739-749.	3.5	101
20	Ozone exposure triggers the emission of herbivore-induced plant volatiles, but does not disturb tritrophic signalling. Environmental Pollution, 2004, 131, 305-311.	3.7	99
21	Effects of nitrogen fertilization on secondary chemistry and ectomycorrhizal state of Scots pine seedlings and on growth of grey pine aphid. Journal of Chemical Ecology, 1996, 22, 617-636.	0.9	98
22	Emission of herbivore-induced volatile terpenoids from two hybrid aspen (Populus tremula Ã—) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Biology, 2007, 13, 2538-2550.	4.2	98
23	Effect of drought and waterlogging stress on needle monoterpenes of <i>Picea abies</i>. Canadian Journal of Botany, 1992, 70, 1613-1616.	1.2	96
24	Seasonal and geographical variation of terpenes, resin acids and total phenolics in nursery grown seedlings of Scots pine (Pinus sylvestris L.). New Phytologist, 1994, 128, 703-713.	3.5	95
25	Nanoparticle formation by ozonolysis of inducible plant volatiles. Atmospheric Chemistry and Physics, 2005, 5, 1489-1495.	1.9	94
26	Effects of elevated carbon dioxide and ozone on volatile terpenoid emissions and multitrophic communication of transgenic insecticidal oilseed rape (<i>Brassica napus</i>). New Phytologist, 2009, 181, 174-186.	3.5	94
27	Realâ€time monitoring of herbivore induced volatile emissions in the field. Physiologia Plantarum, 2010, 138, 123-133.	2.6	93
28	Bounce behavior of freshly nucleated biogenic secondary organic aerosol particles. Atmospheric Chemistry and Physics, 2011, 11, 8759-8766.	1.9	92
29	Emission of volatile organic compounds from two silver birch (Roth) clones grown under ambient and elevated CO and different O concentrations. Atmospheric Environment, 2005, 39, 1185-1197.	1.9	87
30	Air pollution impedes plantâ€toâ€plant communication by volatiles. Ecology Letters, 2010, 13, 1172-1181.	3.0	83
31	Isoprene emission from a subarctic peatland under enhanced UVâ€B radiation. New Phytologist, 2007, 176, 346-355.	3.5	81
32	Monoterpene and herbivore-induced emissions from cabbage plants grown at elevated atmospheric CO2 concentration. Atmospheric Environment, 2004, 38, 675-682.	1.9	78
33	Doubled volatile organic compound emissions from subarctic tundra under simulated climate warming. New Phytologist, 2010, 187, 199-208.	3.5	78
34	Use of Human Urine Fertilizer in Cultivation of Cabbage (<i><i>Brassica oleracea</i></i>)â€"â€"Impacts on Chemical, Microbial, and Flavor Quality. Journal of Agricultural and Food Chemistry, 2007, 55, 8657-8663.	2.4	76
35	Molecular Plant Volatile Communication. Advances in Experimental Medicine and Biology, 2012, 739, 17-31.	0.8	75
36	Climatic warming increases isoprene emission from a subarctic heath. New Phytologist, 2008, 180, 853-863.	3.5	74

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37	Epirrita autumnata induced VOC emission of silver birch differ from emission induced by leaf fungal pathogen. Arthropod-Plant Interactions, 2007, 1, 159-165.	0.5	72
38	Can forest trees compensate for stress-generated growth losses by induced production of volatile compounds?. Tree Physiology, 2011, 31, 1356-1377.	1.4	71
39	The Role of Ozone-reactive Compounds, Terpenes, and Green Leaf Volatiles (GLVs), in the Orientation of Cotesia plutellae. Journal of Chemical Ecology, 2007, 33, 2218-2228.	0.9	69
40	Mass yields of secondary organic aerosols from the oxidation of Î±-pinene and real plant emissions. Atmospheric Chemistry and Physics, 2011, 11, 1367-1378.	1.9	68
41	Language of plants: Where is the word?. Journal of Integrative Plant Biology, 2016, 58, 343-349.	4.1	68
42	The influence of elevated CO 2 and O 3 concentrations on Scots pine needles: changes in starch and secondary metabolites over three exposure years. Oecologia, 1998, 114, 455-460.	0.9	65
43	Genotypic variation in yellow autumn leaf colours explains aphid load in silver birch. New Phytologist, 2012, 195, 461-469.	3.5	65
44	Resource partitioning to growth, storage and defence in nitrogenâ€fertilized Scots pine and susceptibility of the seedlings to the tarnished plant bug Lygus rugulipennis. New Phytologist, 1995, 131, 521-532.	3.5	64
45	New particle formation from the oxidation of direct emissions of pine seedlings. Atmospheric Chemistry and Physics, 2009, 9, 8121-8137.	1.9	64
46	Foliar methyl salicylate emissions indicate prolonged aphid infestation on silver birch and black alder. Tree Physiology, 2010, 30, 404-416.	1.4	64
47	Life-history strategies affect aphid preference for yellowing leaves. Biology Letters, 2009, 5, 603-605.	1.0	61
48	Pine weevil feeding on Norway spruce bark has a stronger impact on needle VOC emissions than enhanced ultraviolet-B radiation. Environmental Pollution, 2009, 157, 174-180.	3.7	60
49	Carabid species and activity densities in biologically and conventionally managed cabbage fields. Journal of Applied Entomology, 1986, 102, 353-363.	0.8	59
50	Why redâ€dominated autumn leaves in America and yellowâ€dominated autumn leaves in Northern Europe?. New Phytologist, 2009, 183, 506-512.	3.5	57
51	Stored Human Urine Supplemented with Wood Ash as Fertilizer in Tomato (Solanum lycopersicum) Cultivation and Its Impacts on Fruit Yield and Quality. Journal of Agricultural and Food Chemistry, 2009, 57, 7612-7617.	2.4	56
52	Elevation of night-time temperature increases terpenoid emissions from Betula pendula and Populus tremula. Journal of Experimental Botany, 2010, 61, 1583-1595.	2.4	56
53	Chemical Changes Induced by Methyl Jasmonate in Oilseed Rape Grown in the Laboratory and in the Field. Journal of Agricultural and Food Chemistry, 2004, 52, 7607-7613.	2.4	55
54	Unravelling the functions of biogenic volatiles in boreal and temperate forest ecosystems. European Journal of Forest Research, 2019, 138, 763-787.	1.1	53

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55	Increases in volatile organic compound emissions of Scots pine in response to elevated ozone and warming are modified by herbivory and soil nitrogen availability. European Journal of Forest Research, 2016, 135, 343-360.	1.1	52
56	The effects of increasing atmospheric ozone on biogenic monoterpene profiles and the formation of secondary aerosols. Atmospheric Environment, 2007, 41, 4877-4887.	1.9	51
57	Feeding of large pine weevil on Scots pine stem triggers localised bark and systemic shoot emission of volatile organic compounds. Environmental and Experimental Botany, 2011, 71, 390-390.	2.0	50
58	The influence of elevated O3 and CO2 concentrations on secondary metabolites of Scots pine (Pinus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	4.2	48
59	Biotic stress accelerates formation of climate-relevant aerosols in boreal forests. Atmospheric Chemistry and Physics, 2015, 15, 12139-12157.	1.9	48
60	Needle ultrastructure and starch content in Scots pine and Norway spruce after ozone fumigation. Canadian Journal of Botany, 1996, 74, 67-76.	1.2	47
61	Aphid response to elevated ozone and CO 2. Entomologia Experimentalis Et Applicata, 2002, 104, 137-142.	0.7	47
62	Response of Plutella xylostella and its Parasitoid Cotesia plutellae to Volatile Compounds. Journal of Chemical Ecology, 2005, 31, 1969-1984.	0.9	46
63	Potential roles of volatile organic compounds in plant competition. Perspectives in Plant Ecology, Evolution and Systematics, 2019, 38, 58-63.	1.1	46
64	Variation in needle terpenoids among Pinus sylvestris L. (Pinaceae) provenances from Turkey. Biochemical Systematics and Ecology, 2007, 35, 652-661.	0.6	45
65	Constitutive and herbivore-inducible glucosinolate concentrations in oilseed rape (Brassica napus) leaves are not affected by Bt Cry1Ac insertion but change under elevated atmospheric CO2 and O3. Planta, 2008, 227, 427-37.	1.6	45
66	Interactions of elevated carbon dioxide and temperature with aphid feeding on transgenic oilseed rape: Are <i>Bacillus thuringiensis</i> (Bt) plants more susceptible to nontarget herbivores in future climate?. Global Change Biology, 2008, 14, 1437-1454.	4.2	45
67	Influence of elevated ozone and limited nitrogen availability on conifer seedlings in an open-air fumigation system: effects on growth, nutrient content, mycorrhiza, needle ultrastructure, starch and secondary compounds. Global Change Biology, 2000, 6, 345-355.	4.2	44
68	Terpene Composition Complexity Controls Secondary Organic Aerosol Yields from Scots Pine Volatile Emissions. Scientific Reports, 2018, 8, 3053.	1.6	44
69	Presence ofLythrum salicariaenhances the bodyguard effects of the parasitoidAsecodes mentoforFilipendula ulmaria. Oikos, 2007, 116, 482-490.	1.2	43
70	Effects of elevated CO2 and O3 on leaf litter phenolics and subsequent performance of litter-feeding soil macrofauna. Plant and Soil, 2007, 292, 25-43.	1.8	43
71	Conifer aphids in an air-polluted environment. II. Host plant quality. Environmental Pollution, 1993, 80, 193-200.	3.7	42
72	Carbon dioxide-induced changes in beech foliage cause female beech weevil larvae to feed in a compensatory manner. Global Change Biology, 1996, 2, 335-341.	4.2	42

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73	Human Urine and Wood Ash as Plant Nutrients for Red Beet (<i>Beta vulgaris</i>) Cultivation: Impacts on Yield Quality. Journal of Agricultural and Food Chemistry, 2010, 58, 2034-2039.	2.4	42
74	Host plants of the European tarnished plant bug <i>Lygus rugulipennis</i> Poppius (Het., Miridae). Journal of Applied Entomology, 1991, 111, 484-498.	0.8	41
75	Decomposition of secondary compounds from needle litter of Scots pine grown under elevated CO_2 and O_3. Global Change Biology, 2003, 9, 295-304.	4.2	40
76	Effects of elevated carbon dioxide and ozone on aphid oviposition preference and birch bud exudate phenolics. Global Change Biology, 2006, 12, 1670-1679.	4.2	40
77	Longâ€term effects of exogenous methyl jasmonate application on Scots pine (Pinus sylvestris) needle chemical defence and diprionid sawfly performance. Entomologia Experimentalis Et Applicata, 2008, 128, 162-171.	0.7	40
78	The influence of different nutrient levels on insectâ€induced plant volatiles in Bt and conventional oilseed rape plants. Plant Biology, 2008, 10, 97-107.	1.8	40
79	Herbivoreâ€induced aspen volatiles temporally regulate two different indirect defences in neighbouring plants. Functional Ecology, 2012, 26, 1176-1185.	1.7	40
80	Atmospheric transformation of plant volatiles disrupts host plant finding. Scientific Reports, 2016, 6, 33851.	1.6	40
81	Potential for the Use of Exogenous Chemical Elicitors in Disease and Insect Pest Management of Conifer Seedling Production. The Open Forest Science Journal, 2009, 2, 17-24.	0.9	40
82	Effect of ozone on the biochemistry and aphid infestation of scots pine. Phytochemistry, 1993, 35, 39-42.	1.4	39
83	Ozone affects growth and development of Pieris brassicae on the wild host plant Brassica nigra. Environmental Pollution, 2015, 199, 119-129.	3.7	39
84	Plant-derived Secondary Organic Material in the Air and Ecosystems. Trends in Plant Science, 2017, 22, 744-753.	4.3	39
85	Targeted use of LEDs in improvement of production efficiency through phytochemical enrichment. Journal of the Science of Food and Agriculture, 2017, 97, 5059-5064.	1.7	39
86	Elevated Atmospheric CO_2 Affects the Chemical Quality of Brassica Plants and the Growth Rate of the Specialist, Plutella xylostella, but Not the Generalist, Spodoptera littoralis. Journal of Agricultural and Food Chemistry, 2004, 52, 4185-4191.	2.4	38
87	New Light for Phytochemicals. Trends in Biotechnology, 2018, 36, 7-10.	4.9	38
88	Foliar behaviour of biogenic semi-volatiles: potential applications in sustainable pest management. Arthropod-Plant Interactions, 2019, 13, 193-212.	0.5	38
89	Few long-term effects of simulated climate change on volatile organic compound emissions and leaf chemistry of three subarctic dwarf shrubs. Environmental and Experimental Botany, 2011, 72, 377-386.	2.0	36
90	Responses of spruce seedlings (Picea abies) to exhaust gas under laboratory conditionsâ€" I plantâ€"insect interactions. Environmental Pollution, 2000, 107, 89-98.	3.7	34

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91	Emission of non-methane volatile organic compounds (VOCs) from boreal peatland microcosmsâ€"effects of ozone exposure. Atmospheric Environment, 2005, 39, 921-930.	1.9	34
92	Herbivory by an Outbreaking Moth Increases Emissions of Biogenic Volatiles and Leads to Enhanced Secondary Organic Aerosol Formation Capacity. Environmental Science & Technology, 2016, 50, 11501-11510.	4.6	34
93	Dual RNA-seq analysis provides new insights into interactions between Norway spruce and necrotrophic pathogen Heterobasidion annosum s.l.. BMC Plant Biology, 2019, 19, 2.	1.6	34
94	Susceptibility of ectomycorrhizal and non-mycorrhizal Scots pine (Pinus sylvestris) seedlings to a generalist insect herbivore, Lygus rugulipennis, at two nitrogen availability levels. New Phytologist, 1998, 140, 55-63.	3.5	33
95	Long-term exposure to enhanced UV-B radiation has no significant effects on growth or secondary compounds of outdoor-grown Scots pine and Norway spruce seedlings. Environmental Pollution, 2006, 144, 166-171.	3.7	33
96	Leaf Volatile Emissions of Betula pendula during Autumn Coloration and Leaf Fall. Journal of Chemical Ecology, 2010, 36, 1068-1075.	0.9	33
97	Needle Removal by Pine Sawfly Larvae Increases Branch-Level VOC Emissions and Reduces Below-Ground Emissions of Scots Pine. Environmental Science & Technology, 2013, 47, 4325-4332.	4.6	33
98	Contrasting responses of silver birch VOC emissions to short- and long-term herbivory. Tree Physiology, 2014, 34, 241-252.	1.4	33
99	Herbivore-induced BVOC emissions of Scots pine under warming, elevated ozone and increased nitrogen availability in an open-field exposure. Agricultural and Forest Meteorology, 2017, 242, 21-32.	1.9	33
100	Influence of tree provenance on biogenic VOC emissions of Scots pine (Pinus sylvestris) stumps. Atmospheric Environment, 2012, 60, 477-485.	1.9	32
101	Effect of bark beetle (Ips typographus L.) attack on bark VOC emissions of Norway spruce (Picea abies) Tj ETQq1 1 0.784314 rgBT /Ov	1.9	32
102	Secondary Organic Aerosol Formation from Healthy and Aphid-Stressed Scots Pine Emissions. ACS Earth and Space Chemistry, 2019, 3, 1756-1772.	1.2	32
103	Effect of exposure to fluoride, nitrogen compounds and SO2 on the numbers of spruce shoot aphids on Norway spruce seedlings. Oecologia, 1991, 86, 51-56.	0.9	31
104	Pathogenesis-related proteins in ozone-exposed Norway spruce [Picea abies(Karst) L.]. New Phytologist, 1994, 126, 81-89.	3.5	31
105	Combined Effects of Ozone and Nitrogen on Secondary Compounds, Amino Acids, and Aphid Performance in Scots Pine. Journal of Environmental Quality, 2000, 29, 334-342.	1.0	31
106	Secondary Metabolite Concentrations and Terpene Emissions of Scots Pine Xylem after Longâ€Term Forest Fertilization. Journal of Environmental Quality, 2002, 31, 1694-1701.	1.0	31
107	Influence of Carrot Psyllid (Trioza apicalis) Feeding or Exogenous Limonene or Methyl Jasmonate Treatment on Composition of Carrot (Daucus carota) Leaf Essential Oil and Headspace Volatiles. Journal of Agricultural and Food Chemistry, 2005, 53, 8631-8638.	2.4	31
108	Activation of defence pathways in Scots pine bark after feeding by pine weevil (Hylobius abietis). BMC Genomics, 2015, 16, 352.	1.2	31

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109	Short feeding period of carrot psyllid (TriozaÂapicalis) females at early growth stages of carrot reduces yield and causes leaf discolouration. Entomologia Experimentalis Et Applicata, 2007, 125, 277-283.	0.7	30
110	Cordeauxia edulis and Rhododendron tomentosum extracts disturb orientation and feeding behavior of Hylobius abietis and Phyllodecta laticollis. Entomologia Experimentalis Et Applicata, 2011, 138, 162-174.	0.7	30
111	The responses of shoot-root-rhizosphere continuum to simultaneous fertilizer addition, warming, ozone and herbivory in young Scots pine seedlings in a high latitude field experiment. Soil Biology and Biochemistry, 2017, 114, 279-294.	4.2	29
112	The role of low-level ozone exposure and mycorrhizas in chemical quality and insect herbivore performance on Scots pine seedlings. Global Change Biology, 2000, 6, 111-121.	4.2	28
113	Spring versus autumn leaf colours: Evidence for different selective agents and evolution in various species and floras. Flora: Morphology, Distribution, Functional Ecology of Plants, 2012, 207, 80-85.	0.6	28
114	Significance of Wood Terpenoids in the Resistance of Scots Pine Provenances Against the Old House Borer, Hylotrupes bajulus, and Brown-Rot Fungus, Coniophora puteana. Journal of Chemical Ecology, 2004, 30, 125-141.	0.9	27
115	Importance of olfactory and visual signals of autumn leaves in the coevolution of aphids and trees. BioEssays, 2008, 30, 889-896.	1.2	27
116	Contribution of vegetation and water table on isoprene emission from boreal peatland microcosms. Atmospheric Environment, 2009, 43, 5469-5475.	1.9	27
117	The effect of warming and enhanced ultraviolet radiation on gender-specific emissions of volatile organic compounds from European aspen. Science of the Total Environment, 2016, 547, 39-47.	3.9	27
118	Effects of SO2 on the concentrations of carbohydrates and secondary compounds in Scots pine (Pinus sylvestris L.) and Norway spruce (Picea abies (L.) Karst.) seedlings. New Phytologist, 1995, 130, 231-238.	3.5	26
119	Growth and reproduction of aphids and levels of free amino acids in Scots pine and Norway spruce in an openâ€air fumigation with ozone. Global Change Biology, 1997, 3, 139-147.	4.2	26
120	Variation in Growth, Chemical Defense, and Herbivore Resistance in Scots Pine Provenances. Journal of Chemical Ecology, 1998, 24, 1315-1331.	0.9	26
121	Effects of limonene on the growth and physiology of cabbage(Brassica oleracea L) and carrot(Daucus) Tj ETQq1 1 0.784314 rgBT /Overl	1.7	26
122	Host location behavior of Cotesia plutellae Kurdjumov (Hymenoptera: Braconidae) in ambient and moderately elevated ozone in field conditions. Environmental Pollution, 2008, 156, 227-231.	3.7	26
123	Utilizing associational resistance for biocontrol: impacted by temperature, supported by indirect defence. BMC Ecology, 2015, 15, 16.	3.0	26
124	Damage caused by <i>Lygus rugulipennis</i> Popp. (Heteroptera, Miridae), to <i>Pinus sylvestris</i> L. seedlings. Scandinavian Journal of Forest Research, 1986, 1, 343-349.	0.5	25
125	Non-Methane Biogenic Volatile Organic Compound Emissions from a Subarctic Peatland Under Enhanced UV-B Radiation. Ecosystems, 2010, 13, 860-873.	1.6	25
126	Do elevated atmospheric CO₂ and O₃ affect food quality and performance of folivorous insects on silver birch?. Global Change Biology, 2010, 16, 918-935.	4.2	25

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127	Isoprene emissions from boreal peatland microcosms; effects of elevated ozone concentration in an open field experiment. Atmospheric Environment, 2007, 41, 3819-3828.	1.9	24
128	Manipulation of VOC emissions with methyl jasmonate and carrageenan in the evergreen conifer <i>Pinus sylvestris</i> and evergreen broadleaf <i>Quercus ilex</i>. Plant Biology, 2012, 14, 57-65.	1.8	24
129	Tissue Microbiome of Norway Spruce Affected by Heterobasidion-Induced Wood Decay. Microbial Ecology, 2019, 77, 640-650.	1.4	24
130	Evaluation of potential genetic and chemical markers for Scots pine tolerance against Heterobasidion annosum infection. Planta, 2019, 250, 1881-1895.	1.6	24
131	Trichloroacetic acid in pine needles in the vicinity of a pulp mill. Chemosphere, 1993, 26, 1859-1868.	4.2	23
132	Pre-exposure to nitric oxide modulates the effect of ozone on oxidative defenses and volatile emissions in lima bean. Environmental Pollution, 2013, 179, 111-119.	3.7	23
133	Do Insectivorous Birds use Volatile Organic Compounds from Plants as Olfactory Foraging Cues? Three Experimental Tests. Ethology, 2015, 121, 1131-1144.	0.5	23
134	Conifer aphids in an air-polluted environment. I. Aphid density, growth and accumulation of sulphur and nitrogen by scots pine and Norway spruce seedlings. Environmental Pollution, 1993, 80, 185-191.	3.7	22
135	Non-methane biogenic volatile organic compound emissions from boreal peatland microcosms under warming and water table drawdown. Biogeochemistry, 2011, 106, 503-516.	1.7	22
136	Elevated Ozone Modulates Herbivore-Induced Volatile Emissions of Brassica nigra and Alters a Tritrophic Interaction. Journal of Chemical Ecology, 2016, 42, 368-381.	0.9	22
137	Effects of Cyclamen Mite (Phytonemus pallidus) and Leaf Beetle (Galerucella tenella) Damage on Volatile Emission from Strawberry (FragariaÃ—ananassaDuch.) Plants and Orientation of Predatory Mites (Neoseiulus cucumeris,N. californicus,andEuseius finlandicus). Journal of Agricultural and Food Chemistry, 2005, 53, 8624-8630.	2.4	21
138	Elevated ozone modifies the feeding behaviour of the common leaf weevil on hybrid aspen through shifts in developmental, chemical, and structural properties of leaves. Entomologia Experimentalis Et Applicata, 2008, 128, 66-72.	0.7	21
139	Effect of vegetation removal and water table drawdown on the non-methane biogenic volatile organic compound emissions in boreal peatland microcosms. Atmospheric Environment, 2010, 44, 4432-4439.	1.9	21
140	Natural Variation in Volatile Emissions of the Invasive Weed Calluna vulgaris in New Zealand. Plants, 2020, 9, 283.	1.6	21
141	The influence of exogenous monoterpene treatment and elevated temperature on growth, physiology, chemical content and headspace volatiles of two carrot cultivars (Daucus carota L.). Environmental and Experimental Botany, 2006, 56, 95-107.	2.0	20
142	Reproductive capacity of the grey pine aphid and allocation response of Scots pine seedlings across temperature gradients: a test of hypotheses predicting outcomes of global warming. Canadian Journal of Forest Research, 2004, 34, 94-102.	0.8	19
143	Abundance and seasonal occurrence of adult Carabidae (Coleoptera) in cabbage, sugar beet and timothy fields in southern Finland. Zeitschrift FÃ¼r Angewandte Entomologie, 1984, 98, 62-73.	0.0	19
144	Warming and elevated ozone differently modify needle anatomy of Norway spruce (<i>Picea abies</i>) and Scots pine (<i>Pinus sylvestris</i>). Canadian Journal of Forest Research, 2017, 47, 488-499.	0.8	19

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145	Variable growth and reproduction response of the spruce shoot aphid, Cinara pilicornis, to increasing ozone concentrations. Entomologia Experimentalis Et Applicata, 1998, 87, 109-113.	0.7	18
146	Foliar and Emission Composition of Essential Oil in Two Carrot Varieties. Journal of Agricultural and Food Chemistry, 1998, 46, 3780-3784.	2.4	18
147	Yeheb (Cordeauxia edulis) extract deters feeding and oviposition of Plutella xylostella and attracts its natural enemy. BioControl, 2010, 55, 613-624.	0.9	18
148	Induced defenses of Veronica spicata: Variability in herbivore-induced volatile organic compounds. Phytochemistry Letters, 2013, 6, 653-656.	0.6	18
149	Volatile organic compounds emitted from silver birch of different provenances across a latitudinal gradient in Finland. Tree Physiology, 2015, 35, 975-986.	1.4	18
150	Effects of drought and waterlogging on ultrastructure of Scots pine and Norway spruce needles. Trees - Structure and Function, 1994, 9, 98.	0.9	17
151	Essential oil composition in leaves of carrot varieties and preference of specialist and generalist sucking insect herbivores. Agricultural and Forest Entomology, 2002, 4, 211-216.	0.7	17
152	Rising Atmospheric CO2Concentration Partially Masks the Negative Effects of Elevated O3in Silver Birch (Betula pendula Roth). Ambio, 2009, 38, 418-424.	2.8	17
153	Diversity of volatile organic compound emissions from flowering and vegetative branches of Yeheb, <i>Cordeauxia edulis</i> (Caesalpiniaceae), a threatened evergreen desert shrub. Flavour and Fragrance Journal, 2010, 25, 83-92.	1.2	17
154	Understorey Rhododendron tomentosum and Leaf Trichome Density Affect Mountain Birch VOC Emissions in the Subarctic. Scientific Reports, 2018, 8, 13261.	1.6	17
155	Effects of gaseous air pollutants on secondary chemistry of Scots pine and norway spruce seedlings. Water, Air, and Soil Pollution, 1995, 85, 1393-1398.	1.1	16
156	Multitrophic Signalling in Polluted Atmospheres. Tree Physiology, 2013, , 285-314.	0.9	16
157	Host plant preference of the tarnished plant bug <i>Lygus rugulipennis</i> Popp. (Het., Miridae). Journal of Applied Entomology, 1989, 107, 78-82.	0.8	15
158	Effects of Planting on Concentrations of Terpenes, Resin Acids and Total Phenolics in Pinus sylvestris Seedlings. Scandinavian Journal of Forest Research, 1999, 14, 218-226.	0.5	15
159	Ecological Functions of Terpenoids in Changing Climates. , 2013, , 2913-2940.		14
160	Scots pine provenance affects the emission rate and chemical composition of volatile organic compounds of forest floor. Canadian Journal of Forest Research, 2018, 48, 1373-1381.	0.8	14
161	Gramine and Free Amino Acids as Indicators of Fluoride-Induced Stress in Barley and Its Consequences to Insect Herbivory. Ecotoxicology and Environmental Safety, 1995, 31, 238-245.	2.9	13
162	Performance of grey pine aphid, Schizolachnus pineti, on ectomycorrhizal and non-mycorrhizal Scots pine seedlings at different levels of nitrogen availability. Entomologia Experimentalis Et Applicata, 1999, 93, 117-120.	0.7	13

#	Article	IF	Citations
163	The Significance of Ectomycorrhizas in Chemical Quality of Silver Birch Foliage and Above-Ground Insect Herbivore Performance. Journal of Chemical Ecology, 2008, 34, 1322-1330.	0.9	13
164	Levels of damage of Scots pine and Norway spruce caused by needle miners along a SO₂ gradient. Ecography, 1996, 19, 229-236.	2.1	12
165	Norway spruce and spruce shoot aphid as indicators of traffic pollution. Environmental Pollution, 2000, 107, 305-314.	3.7	12
166	Passive Adsorption of Volatile Monoterpene in Pest Control: Aided by Proximity and Disrupted by Ozone. Journal of Agricultural and Food Chemistry, 2017, 65, 9579-9586.	2.4	12
167	Abundance and control of Lygus rugulipennis (Heteroptera: Miridae) on Scots pine (Pinus sylvestris L.) nursery stock. New Forests, 1990, 4, 13-25.	0.7	11
168	Resistance of Scots pine wood to Brown-rot fungi after long-term forest fertilization. Trees - Structure and Function, 2005, 19, 729-735.	0.9	11
169	Elevated atmospheric ozone increases concentration of insecticidal Bacillus thuringiensis (Bt) Cry1Ac protein in Bt Brassica napus and reduces feeding of a Bt target herbivore on the non-transgenic parent. Environmental Pollution, 2009, 157, 181-185.	3.7	11
170	Ozone disrupts adsorption of Rhododendron tomentosum volatiles to neighbouring plant surfaces, but does not disturb herbivore repellency. Environmental Pollution, 2018, 240, 775-780.	3.7	11
171	Seasonal and environmental variation in volatile emissions of the New Zealand native plant Leptospermum scoparium in weed-invaded and non-invaded sites. Scientific Reports, 2020, 10, 11736.	1.6	11
172	The phytotoxic air-pollutant O3 enhances the emission of herbivore-induced volatile organic compounds (VOCs) and affects the susceptibility of black mustard plants to pest attack. Environmental Pollution, 2020, 265, 115030.	3.7	11
173	Effects of a mechanical barrier and formalin preservative on pitfall catches of carabid beetles (Coleoptera, Carabidae) in arable fields. Journal of Applied Entomology, 1986, 102, 440-445.	0.8	10
174	The relationship between multiple leaders and mechanical and frost damage to the apical meristem of Scots pine seedlings. Canadian Journal of Forest Research, 1990, 20, 280-284.	0.8	10
175	Gut Contents of Ground Beetles (Col., Carabidae), and Activity of these and other Epigeal Predators during an Outbreak ofRhopalosiphum padi(Hom., Aphididae). Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 1992, 42, 57-61.	0.3	10
176	Wood borer performance and wood characteristics of droughtâ€stressed Scots pine seedlings. Entomologia Experimentalis Et Applicata, 2010, 137, 105-110.	0.7	10
177	Potential of Climate Change and Herbivory to Affect the Release and Atmospheric Reactions of BVOCs from Boreal and Subarctic Forests. Molecules, 2021, 26, 2283.	1.7	10
178	Hylobius abietisL. feeding on the novel hostPinus brutiaTen. increases emission of volatile organic compounds. Journal of Applied Entomology, 2017, 141, 133-140.	0.8	9
179	Herbivory and Attenuated UV Radiation Affect Volatile Emissions of the Invasive Weed Calluna vulgaris. Molecules, 2020, 25, 3200.	1.7	9
180	Methyl Salicylate and Sesquiterpene Emissions Are Indicative for Aphid Infestation on Scots Pine. Forests, 2020, 11, 573.	0.9	9

#	Article	IF	Citations
181	The response of spruce shoot aphid Cinara pilicornis hartig to ambient and filtered air at two elevations and pollution climates. Environmental Pollution, 1994, 86, 233-238.	3.7	8
182	Ozone levels and plant growth. Trends in Plant Science, 1996, 1, 368-369.	4.3	8
183	Effect of Long-Term Forest Fertilization on Scots Pine Xylem Quality and Wood Borer Performance. Journal of Chemical Ecology, 2008, 34, 26-31.	0.9	8
184	Combined effects of elevated ozone, temperature, and nitrogen on stem phenolic concentrations of Scots pine (<i>Pinus sylvestris</i>) seedlings. Canadian Journal of Forest Research, 2019, 49, 246-255.	0.8	8
185	Plant-emitted semi-volatiles shape the infochemical environment and herbivore resistance of heterospecific neighbors. Plant Signaling and Behavior, 2010, 5, 1234-1236.	1.2	7
186	Deposition of Î±-pinene oxidation products on plant surfaces affects plant VOC emission and herbivore feeding and oviposition. Environmental Pollution, 2020, 263, 114437.	3.7	7
187	Effects of gaseous air pollutants on aphid performance on Scots pine and Norway spruce seedlings. Water, Air, and Soil Pollution, 1995, 85, 1431-1436.	1.1	6
188	Abiotic stress and transgenics: Implications for reproductive success and crop-to-wild gene flow in Brassicas. Basic and Applied Ecology, 2010, 11, 513-521.	1.2	6
189	Effects of Two Invasive Weeds on Arthropod Community Structure on the Central Plateau of New Zealand. Plants, 2020, 9, 919.	1.6	6
190	Functional Role of Extrafloral Nectar in Boreal Forest Ecosystems under Climate Change. Forests, 2020, 11, 67.	0.9	6
191	Performance of pine sawflies under elevated tropospheric ozone.. Silva Fennica, 1996, 30, .	0.5	6
192	How red is the red autumn leaf herring and did it lose its red color?. Plant Signaling and Behavior, 2011, 6, 1879-1880.	1.2	5
193	BVOC Emissions From a Subarctic Ecosystem, as Controlled by Insect Herbivore Pressure and Temperature. Ecosystems, 2022, 25, 872-891.	1.6	5
194	Changes in light spectra modify secondary compound concentrations and BVOC emissions of Norway spruce seedlings. Canadian Journal of Forest Research, 2021, 51, 1218-1229.	0.8	5
195	Open-top chamber fumigation system for exposure of field grown Pinus sylvestris to elevated carbon dioxide and ozone concentration. Silva Fennica, 1998, 32, .	0.5	5
196	Aphid response to elevated ozone and CO2. , 2002, , 137-142.		5
197	Treating Scots pine seedlings with the herbicide atrazine does not affect shoot chemistry or feeding and oviposition by Lygusrugulipennis. Canadian Journal of Forest Research, 1992, 22, 588-592.	0.8	4
198	Degree of herbivore feeding damage as an important contributor to multitrophic plant-parasitoid signaling under climate change. Plant Signaling and Behavior, 2009, 4, 249-251.	1.2	4

#	Article	IF	Citations
199	Air pollution impedes plant-to-plant communication, but what is the signal?. Plant Signaling and Behavior, 2011, 6, 1016-1018.	1.2	4
200	A field study with geometrid moths to test the coevolution hypothesis of red autumn colours in deciduous trees. Entomologia Experimentalis Et Applicata, 2017, 165, 29-37.	0.7	4
201	Herbivore Gender Effects on Volatile Induction in Aspen and on Olfactory Responses in Leaf Beetles. Forests, 2020, 11, 638.	0.9	4
202	Environmentally acquired chemical camouflage affects Pieris brassicae L. host plant selection and orientation behaviour of a larval parasitoid. Arthropod-Plant Interactions, 2021, 15, 299-312.	0.5	4
203	Seasonal Volatile Emission Patterns of the Endemic New Zealand Shrub Dracophyllum subulatum on the North Island Central Plateau. Frontiers in Plant Science, 2021, 12, 734531.	1.7	4
204	Effects of elevated ozone and warming on terpenoid emissions and concentrations of Norway spruce depend on needle phenology and age. Tree Physiology, 2022, , .	1.4	4
205	Palatability of herbicide-treated maize to the Indian stick insect (Carausius morosus). Agriculture, Ecosystems and Environment, 1991, 36, 191-197.	2.5	3
206	Interactions of ectomycorrhizas and above-ground insect herbivores on silver birch. Plant Signaling and Behavior, 2009, 4, 355-357.	1.2	3
207	The influence of cypermethrin and oxydemeton-methyl treatment on Lygus damage in young Scots pine seedlings. Annals of Applied Biology, 1989, 114, 209-213.	1.3	2
208	Loss of isoprene-emitting capacity: deleterious for trees?. Tree Physiology, 2013, 33, 559-561.	1.4	2
209	Levels of damage of Scots pine and Norway spruce caused by needle miners along a SO2 gradient. Ecography, 1996, 19, 229-236.	2.1	2
210	Proteinaceous elicitor from a secretion of eggâ€laying insect herbivore induces plant emission that attracts egg parasitoids. Plant, Cell and Environment, 2022, 45, 1029-1032.	2.8	2
211	Plantâ€“animal communication. Annals of Botany, 2013, 111, vii-vii.	1.4	1
212	Effects of Ozone on Trees and Forest Insects. Forestry Sciences, 2000, , 106-112.	0.4	0
213	Reproduction of Aphids and Spider Mites and Levels of Amino Acids in Conifer Seedlings Exposed to Ozone. , 1992, , 965-966.		0
214	UV-B radiation and insect herbivory: preliminary observations on strawberry plants and the leaf beetle Galerucella sagittariae in Finland. International Journal of Circumpolar Health, 2000, 59, 22-5.	0.5	0