Matthew P Ayres

List of Publications by Year
in descending order

132	9,656	57758 44	39675 94
papers	citations	h-index	g-index

136	136	136	9195
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Climate Change and Forest Disturbances. BioScience, 2001, 51, 723.	4.9	1,682
2	Jensenâ€™s inequality predicts effects of environmental variation. Trends in Ecology and Evolution, 1999, 14, 361-366.	8.7	649
3	Assessing the consequences of global change for forest disturbance from herbivores and pathogens. Science of the Total Environment, 2000, 262, 263-286.	8.0	643
4	Responses of insect pests, pathogens, and invasive plant species to climate change in the forests of northeastern North America: What can we predict?This article is one of a selection of papers from NE Forests 2100: A Synthesis of Climate Change Impacts on Forests of the Northeastern US and Eastern Canada.. Canadian Journal of Forest Research, 2009, 39, 231-248.	1.7	393
5	Consequences of climate change for biotic disturbances in North American forests. Ecological Monographs, 2013, 83, 441-470.	5.4	351
6	Observed and anticipated impacts of drought on forest insects and diseases in the United States. Forest Ecology and Management, 2016, 380, 321-334.	3.2	318
7	Nonnative forest insects and pathogens in the United States: Impacts and policy options. Ecological Applications, 2016, 26, 1437-1455.	3.8	289
8	NITROGEN BUDGETS OF PHLOEM-FEEDING BARK BEETLES WITH AND WITHOUT SYMBIOTIC FUNGI. Ecology, 2000, 81, 2198-2210.	3.2	273
9	Linking Breeding and Wintering Ranges of a Migratory Songbird Using Stable Isotopes. Science, 2002, 295, 1062-1065.	12.6	270
10	DIVERSITY OF STRUCTURE AND ANTIHERBIVORE ACTIVITY IN CONDENSED TANNINS. Ecology, 1997, 78, 1696-1712.	3.2	244
11	Environmental effects on constitutive and inducible resin defences of Pinus taeda. Ecology Letters, 2000, 3, 329-339.	6.4	222
12	Local Adaptation to Regional Climates in Papilio Canadensis (Lepidoptera: Papilionidae). Ecological Monographs, 1994, 64, 465-482.	5.4	191
13	Climate and the northern distribution limits of Dendroctonus frontalis Zimmermann (Coleoptera:) Tj ETQq1 1 0.784314 rgBT /Overloc	3.0	187
14	Causes of cyclicity of Epirrita autumnata (Lepidoptera, Geometridae): grandiose theory and tedious practice. Population Ecology, 2000, 42, 211-223.	1.2	159
15	Antagonisms, mutualisms and commensalisms affect outbreak dynamics of the southern pine beetle. Oecologia, 2006, 147, 679-691.	2.0	143
16	Climate affects severity and altitudinal distribution of outbreaks in an eruptive bark beetle. Climatic Change, 2012, 115, 327-341.	3.6	124
17	IMPACT OF MINIMUM WINTER TEMPERATURES ON THE POPULATION DYNAMICS OFDENDROCTONUS FRONTALIS. , 2007, 17, 882-899.		122
18	Development of Birch Leaves and the Growth Energetics of Epirrita Autumnata (Geometridae). Ecology, 1987, 68, 558-568.	3.2	118

#	Article	IF	Citations
19	In a warmer Arctic, mosquitoes avoid increased mortality from predators by growing faster. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20151549.	2.6	99
20	Effects of variation in quality of leaf detritus on growth of the eastern tree-hole mosquito, Aedes triseriatus (Diptera: Culicidae). Canadian Journal of Zoology, 1997, 75, 706-718.	1.0	98
21	The distribution and abundance of animal populations in a climate of uncertainty. Oikos, 2009, 118, 1121-1126.	2.7	93
22	Strong indirect interactions of Tarsonemus mites (Acarina: Tarsonemidae) and Dendroctonus frontalis (Coleoptera: Scolytidae). Oikos, 2003, 102, 243-252.	2.7	92
23	Cold Tolerance of Four Species of Bark Beetle (Coleoptera: Scolytidae) in North America. Environmental Entomology, 2000, 29, 421-432.	1.4	84
24	Loblolly pine responds to mechanical wounding with increased resin flow. Canadian Journal of Forest Research, 1998, 28, 596-602.	1.7	80
25	Resource partitioning and overlap in three sympatric species of Ips bark beetles (Coleoptera:) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.0	76
26	Interactions between fire and bark beetles in an old growth pine forest. Forest Ecology and Management, 2001, 144, 245-254.	3.2	74
27	Effects Of Tree Phytochemistry On The Interactions Among Endophloedic Fungi Associated With The Southern Pine Beetle. Journal of Chemical Ecology, 2005, 31, 539-560.	1.8	71
28	Tropical phenology: biâ€annual rhythms and interannual variation in an Afrotropical butterfly assemblage. Ecosphere, 2013, 4, 1-28.	2.2	70
29	ALTERNATIVE FORMULATIONS OF THE MIXEDâ€MODEL ANOVA APPLIED TO QUANTITATIVE GENETICS. Evolution; International Journal of Organic Evolution, 1990, 44, 221-226.	2.3	67
30	Temperature-dependent effects on mutualistic, antagonistic, and commensalistic interactions among insects, fungi and mites. Community Ecology, 2007, 8, 47-56.	0.9	67
31	Host-driven population dynamics in an herbivorous insect. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 10735-10740.	7.1	66
32	Effects of fire and mechanical wounding on Pinus resinosa resin defenses, beetle attacks, and pathogens. Forest Ecology and Management, 2006, 225, 349-358.	3.2	65
33	Cold tolerance of the pupae in relation to the distribution of swallowtail butterflies. Canadian Journal of Zoology, 1991, 69, 3028-3037.	1.0	63
34	Within-Tree and Among-Tree Variation in Leaf Characteristics of Mountain Birch and Its Implications for Herbivory. Oikos, 1994, 70, 212.	2.7	61
35	Adult Nutrition Affects Male Virility in Papilio glaucus L.. Functional Ecology, 1990, 4, 743.	3.6	59
36	Molt as a Component of Insect Development: Galerucella sagittariae (Chrysomelidae) and Epirrita autumnata (Geometridae). Oikos, 1987, 48, 273.	2.7	56

#	Article	IF	Citations
37	Host Suitability, Predation, and Bark Beetle Population Dynamics. , 1995, , 339-357.		53
38	Altitudinal patterns in host suitability for forest insects. Oecologia, 1998, 117, 133-142.	2.0	52
39	Breeding timed to maximize reproductive success for a migratory songbird: the importance of phenological asynchrony. Oikos, 2016, 125, 656-666.	2.7	52
40	Northern forest winters have lost cold, snowy conditions that are important for ecosystems and human communities. Ecological Applications, 2019, 29, e01974.	3.8	51
41	Growth performance of Epirrita autumnata (Lepidoptera: Geometridae) on mountain birch: trees, broods, and tree x brood interactions. Oecologia, 1987, 74, 450-457.	2.0	50
42	Larval Adaptation to Lauraceous Hosts: Geographic Divergence in the Spicebush Swallowtail Butterfly. Ecology, 1991, 72, 1428-1435.	3.2	50
43	Biology, demography and community interactions of Tarsonemus (Acarina: Tarsonemidae) mites phoretic on Dendroctonus frontalis (Coleoptera: Scolytidae). Agricultural and Forest Entomology, 2000, 2, 193-202.	1.3	50
44	Predation risk shapes thermal physiology of a predaceous damselfly. Oecologia, 2014, 176, 653-660.	2.0	50
45	Longâ€term species loss and homogenization of moth communities in Central Europe. Journal of Animal Ecology, 2017, 86, 730-738.	2.8	49
46	Differential Use of Lauraceous Hosts by Swallowtail Butterflies, Papilio troilus and P. palamedes (Papilionidae). Oikos, 1992, 63, 244.	2.7	48
47	Seasonal Dynamics of Mites and Fungi and Their Interaction with Southern Pine Beetle. Environmental Entomology, 2006, 35, 22-30.	1.4	47
48	Environmental controls on the phenology of moths: predicting plasticity and constraint under climate change. Oecologia, 2011, 165, 237-248.	2.0	44
49	Geographically variable response of Dendroctonus ponderosae to winter warming in the western United States. Landscape Ecology, 2015, 30, 1075-1093.	4.2	42
50	Fitness consequences of pheromone production and host selection strategies in a tree-killing bark beetle (Coleoptera: Curculionidae: Scolytinae). Oecologia, 2006, 148, 720-728.	2.0	39
51	Synchrony's double edge: transient dynamics and the Allee effect in stage structured populations. Ecology Letters, 2007, 10, 564-573.	6.4	38
52	Understory herb assemblages 25 and 60 years after clearcutting of a northern hardwood forest, USA. Biological Conservation, 1999, 90, 203-215.	4.1	37
53	Subcontinental impacts of an invasive tree disease on forest structure and dynamics. Journal of Ecology, 2011, 99, 532-541.	4.0	36
54	Fine roots and mycorrhizal fungi accelerate leaf litter decomposition in a northern hardwood forest regardless of dominant tree mycorrhizal associations. New Phytologist, 2021, 230, 316-326.	7.3	35

#	Article	IF	Citations
55	Climatic effects on caterpillar fluctuations in northern hardwood forests. Canadian Journal of Forest Research, 2007, 37, 481-491.	1.7	33
56	Forest pests and their management in the Anthropocene. Canadian Journal of Forest Research, 2018, 48, 292-301.	1.7	33
57	High-resolution analysis of stem increment and sap flow for loblolly pine trees attacked by southern pine beetle. Canadian Journal of Forest Research, 2004, 34, 2387-2393.	1.7	32
58	Alternate attractors in the population dynamics of a treeâ€killing bark beetle. Population Ecology, 2013, 55, 95-106.	1.2	32
59	Factors Influencing Bark Beetle Outbreaks After Forest Fires on the Iberian Peninsula. Environmental Entomology, 2011, 40, 1007-1018.	1.4	31
60	Host Use Patterns by the European Woodwasp, Sirex noctilio, in Its Native and Invaded Range. PLoS ONE, 2014, 9, e90321.	2.5	28
61	Evolutionary history predicts highâ€impact invasions by herbivorous insects. Ecology and Evolution, 2019, 9, 12216-12230.	1.9	28
62	Effects of available water on growth and competition of southern pine beetle associated fungi. Mycological Research, 2004, 108, 183-188.	2.5	26
63	Temperature Extremes, Density Dependence, and Southern Pine Beetle (Coleoptera: Curculionidae) Population Dynamics in East Texas. Environmental Entomology, 2008, 37, 650-659.	1.4	26
64	Old pests in new places: Effects of stand structure and forest type on susceptibility to a bark beetle on the edge of its native range. Forest Ecology and Management, 2018, 419-420, 206-219.	3.2	25
65	High individual variation in pheromone production by tree-killing bark beetles (Coleoptera:) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	1.6	24
66	Impact of climatic variation on populations of pine processionary moth Thaumetopoea pityocampa in a core area of its distribution. Agricultural and Forest Entomology, 2011, 13, 273-281.	1.3	24
67	Geographical variation in seasonality and life history of pine sawyer beetles Monochamus spp: its relationship with phoresy by the pinewood nematode Bursaphelenchus xylophilus. Agricultural and Forest Entomology, 2014, 16, 196-206.	1.3	24
68	Monochamus galloprovincialis and Bursaphelenchus xylophilus life history in an area severely affected by pine wilt disease: Implications for forest management. Forest Ecology and Management, 2017, 389, 105-115.	3.2	23
69	Interannual dynamics of aerial and arboreal green spruce aphid populations. Population Ecology, 2010, 52, 317-327.	1.2	22
70	Influence of temperature on the northern distribution limits of Scirpophaga incertulas Walker (Lepidoptera: Pyralidae) in China. Journal of Thermal Biology, 2012, 37, 130-137.	2.5	22
71	ROLE OF PLANT ENEMIES IN THE FORESTRY OF INDIGENOUS VS. NONINDIGENOUS PINES. Ecological Applications, 2008, 18, 1171-1181.	3.8	21
72	Impact of Stand and Landscape Management on Forest Pest Damage. Annual Review of Entomology, 2022, 67, 181-199.	11.8	21

#	Article	IF	Citations
73	Effects of Atmospheric CO 2 , Light Availability and Tree Species on the Quality of Leaf Detritus as a Resource for Treehole Mosquitoes. Oikos, 1999, 84, 277.	2.7	20
74	Is climate warming more consequential towards poles? The phenology of Lepidoptera in Finland. Global Change Biology, 2014, 20, 16-27.	9.5	19
75	Concordant population dynamics of Lepidoptera herbivores in a forest ecosystem. Ecography, 2011, 34, 772-779.	4.5	17
76	Population biology of the European woodwasp,Sirex noctilio, in Galicia, Spain. Bulletin of Entomological Research, 2016, 106, 569-580.	1.0	17
77	Latitudinal patterns in temperature-dependent growth rates of a forest pathogen. Journal of Thermal Biology, 2018, 72, 39-43.	2.5	17
78	Plasticity and Constraint in Growth and Protein Mineralization of Ectomycorrhizal Fungi under Simulated Nitrogen Deposition. Mycologia, 2002, 94, 921.	1.9	15
79	Relative Suitability of Virginia Pine and Loblolly Pine as Host Species forDendroctonus frontalis(Coleoptera: Scolytidae). Environmental Entomology, 2003, 32, 668-679.	1.4	15
80	Why does longleaf pine have low susceptibility to southern pine beetle?. Canadian Journal of Forest Research, 2007, 37, 1966-1977.	1.7	15
81	Disease ontogeny overshadows effects of climate and species interactions on population dynamics in a nonnative forest disease complex. Ecography, 2012, 35, 412-421.	4.5	15
82	Pinewood nematode population growth in relation to pine phloem chemical composition. Plant Pathology, 2017, 66, 856-864.	2.4	15
83	Temperature affects phenological synchrony in a tree-killing bark beetle. Oecologia, 2018, 188, 117-127.	2.0	15
84	Temperature Alters the Relative Abundance and Population Growth Rates of Species Within theDendroctonus frontalis(Coleoptera: Curculionidae) Community. Environmental Entomology, 2011, 40, 824-834.	1.4	14
85	Tree basal area and conifer abundance predict soil carbon stocks and concentrations in an actively managed forest of northern New Hampshire, USA. Forest Ecology and Management, 2019, 451, 117534.	3.2	14
86	Temperature Effects on Growth and Molt of Nematus calais (Hymenoptera: Tenthredinidae). Environmental Entomology, 1994, 23, 719-725.	1.4	13
87	Differential impacts of the southern pine beetle, Dendroctonus frontalis, on Pinus palustris and Pinus taeda. Canadian Journal of Forest Research, 2007, 37, 1427-1437.	1.7	13
88	Inferring controls on the epidemiology of beech bark disease from spatial patterning of disease organisms. Agricultural and Forest Entomology, 2013, 15, 146-156.	1.3	13
89	Spatioâ€temporal dynamics of a treeâ€killing beetle and its predator. Ecography, 2017, 40, 221-234.	4.5	13
90	Effect of Rising Temperature on Lyme Disease:Ixodes scapularisPopulation Dynamics andBorrelia burgdorferiTransmission and Prevalence. Canadian Journal of Infectious Diseases and Medical Microbiology, 2019, 2019, 1-15.	1.9	13

#	Article	IF	Citations
91	Higher Soil Respiration Rate Beneath Arbuscular Mycorrhizal Trees in a Northern Hardwood Forest is Driven by Associated Soil Properties. Ecosystems, 2020, 23, 1243-1253.	3.4	13
92	The Fire and Tree Mortality Database, for empirical modeling of individual tree mortality after fire. Scientific Data, 2020, 7, 194.	5.3	13
93	Signal diversification inOecanthustree crickets is shaped by energetic, morphometric, and acoustic trade-offs. Evolution; International Journal of Organic Evolution, 2015, 69, 1518-1527.	2.3	12
94	Population Dynamics of Bark Beetles. , 2015, , 157-176.		12
95	Disturbance Regimes and Stressors. Advances in Global Change Research, 2014, , 55-92.	1.6	12
96	Analytical approaches for evaluating passive acoustic monitoring data: A case study of avian vocalizations. Ecology and Evolution, 2022, 12, e8797.	1.9	12
97	Spatial heterogeneity in the abundance and fecundity of Arctic mosquitoes. Ecosphere, 2018, 9, e02345.	2.2	11
98	Attack rates ofSirex noctilioand patterns of pine tree defenses and mortality in northern Patagonia. Bulletin of Entomological Research, 2019, 109, 141-149.	1.0	11
99	Disruptive Selection Maintains Variable Pheromone Blends in the Bark Beetle Ips pini. Environmental Entomology, 2011, 40, 1530-1540.	1.4	10
100	Effects of defoliation and site quality on growth and defenses of Pinus pinaster and P. radiata. Forest Ecology and Management, 2016, 382, 39-50.	3.2	10
101	Pine defenses against the pitch canker disease are modulated by a native insect newly associated with the invasive fungus. Forest Ecology and Management, 2019, 437, 253-262.	3.2	10
102	Seedling survival declines with increasing conspecific density in a common temperate tree. Ecosphere, 2020, 11, e03292.	2.2	10
103	Estimation of Soil Temperature from Climatic Variables at Barrow, Alaska, U.S.A.. Arctic and Alpine Research, 1985, 17, 425.	1.3	9
104	Field Performance of F 1 -Sterile Gypsy Moth Larvae (Lepidoptera: Lymantriidae) on Loblolly Pine and Sweetgum. Environmental Entomology, 1996, 25, 749-756.	1.4	9
105	Roe deer prefer mixed-sex willow stands over monosexual stands but do not discriminate between male and female plants. Environmental and Experimental Botany, 2018, 146, 62-67.	4.2	9
106	Consumerâ€“resource dynamics in Arctic ponds. Ecology, 2020, 101, e03135.	3.2	9
107	Aggressive tree killer or natural thinning agent? Assessing the impacts of a globally important forest insect. Forest Ecology and Management, 2021, 483, 118728.	3.2	9
108	The global diversity of Deladenus siricidicola in native and non-native populations. Biological Control, 2019, 132, 57-65.	3.0	8

#	Article	IF	Citations
109	Extreme climatic events affect populations of Asian chestnut gall wasps, <scp>Dryocosmus kuriphilus</scp>, but do not stop the spread. Agricultural and Forest Entomology, 2021, 23, 473-488.	1.3	8
110	Foliar terpene chemistry of Pinus pinaster and P. radiata responds differently to Methyl Jasmonate and feeding by larvae of the pine processionary moth. Forest Ecology and Management, 2013, 310, 935-943.	3.2	7
111	Interactions between pinewood nematodes and the fungal community of pine trees. Fungal Ecology, 2021, 51, 101046.	1.6	7
112	Interactive effects of defoliation and climate change on compensatory growth of silver birch seedlings. Silva Fennica, 2013, 47, .	1.3	7
113	The impact is in the details: evaluating a standardized protocol and scale for determining non-native insect impact. NeoBiota, 0, 55, 61-83.	1.0	7
114	Isotopic studies of leaf water. Part 2: Between-age isotopic variations in pine needles. Geochimica Et Cosmochimica Acta, 2008, 72, 5189-5200.	3.9	6
115	Sublethal infection of different pine species by the pinewood nematode. Plant Pathology, 2020, 69, 1565-1573.	2.4	6
116	Streams in an uninhabited watershed have predictably different thermal sensitivities to variable summer air temperatures. Freshwater Biology, 2018, 63, 676-686.	2.4	5
117	Modeling the Sensitivity of Blacklegged Ticks (Ixodes scapularis) to Temperature and Land Cover in the Northeastern United States. Journal of Medical Entomology, 2021, 58, 416-427.	1.8	5
118	Predicting non-native insect impact: focusing on the trees to see the forest. Biological Invasions, 2021, 23, 3921-3936.	2.4	5
119	Plasticity and constraint in growth and protein mineralization of ectomycorrhizal fungi under simulated nitrogen deposition. Mycologia, 2002, 94, 921-32.	1.9	5
120	Comparison of methods to obtain and maintain cultures of the pinewood nematode, Bursaphelenchus xylophilus. Journal of Forest Research, 2020, 25, 101-107.	1.4	4
121	Title is missing!. Plant and Soil, 2001, 236, 251-262.	3.7	3
122	Emerging mosquitoes (Aedes nigripes) as a resource subsidy for wolf spiders (Pardosa glacialis) in western Greenland. Polar Biology, 0, , 1.	1.2	3
123	Speaking out: weighing advocacy and objectivity as a junior scientist. Frontiers in Ecology and the Environment, 2010, 8, 50-51.	4.0	2
124	Increasing shrub damage by invertebrate herbivores in the warming and drying tundra of West Greenland. Oecologia, 2021, 195, 995-1005.	2.0	2
125	Quantifying the nature and strength of intraspecific density dependence in Arctic mosquitoes. Oecologia, 2021, 196, 1061-1072.	2.0	2
126	Limited evidence that larger acorns buffer Quercus rubra seedlings from densityâ€dependent biotic stressors. American Journal of Botany, 2021, 108, 1861-1872.	1.7	2

#	Article	IF	Citations
127	Insect infestations and the persistence and functioning of oak-pine mixedwood forests in the mid-Atlantic region, USA. PLoS ONE, 2022, 17, e0265955.	2.5	2
128	Phloem and xylem nitrogen variability in Quercus rubra attacked by Enaphalodes rufulus. Canadian Entomologist, 2011, 143, 380-383.	0.8	1
129	Global Change and Disturbance in Southern Forest Ecosystems. Ecological Studies, 1998, , 741-752.	1.2	1
130	NITROGEN BUDGETS OF PHLOEM-FEEDING BARK BEETLES WITH AND WITHOUT SYMBIOTIC FUNGI. , 2000, 81, 2198.		1
131	Life-history strategies and virulence in the pinewood nematode. Physiological and Molecular Plant Pathology, 2022, 117, 101756.	2.5	1
132	ï»¿Demography of an invading forest insect reunited with hosts and parasitoids from its native range. NeoBiota, 0, 72, 81-107.	1.0	1