Catherine A Gehring

List of Publications by Year
in descending order

102 papers	8,324 citations	61984 43 h-index	46799 89 g-index
103 all docs	103 docs citations	103 times ranked	8309 citing authors

#	Article	IF	Citations
1	A framework for community and ecosystem genetics: from genes to ecosystems. Nature Reviews Genetics, 2006, 7, 510-523.	16.3	911
2	A metaâ€analysis of contextâ€dependency in plant response to inoculation with mycorrhizal fungi. Ecology Letters, 2010, 13, 394-407.	6.4	889
3	COMMUNITY AND ECOSYSTEM GENETICS: A CONSEQUENCE OF THE EXTENDED PHENOTYPE. Ecology, 2003, 84, 559-573.	3.2	594
4	Differential tree mortality in response to severe drought: evidence for long-term vegetation shifts. Journal of Ecology, 2005, 93, 1085-1093.	4.0	437
5	Complex Species Interactions and the Dynamics of Ecological Systems: Long-Term Experiments. Science, 2001, 293, 643-650.	12.6	325
6	The promise and the potential consequences of the global transport of mycorrhizal fungal inoculum. Ecology Letters, 2006, 9, 501-515.	6.4	285
7	Tree genetics defines fungal partner communities that may confer drought tolerance. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11169-11174.	7.1	203
8	Mycorrhizal Fungalâ€"Plantâ€"Insect Interactions: The Importance of a Community Approach. Environmental Entomology, 2009, 38, 93-102.	1.4	200
9	Interactions between aboveground herbivores and the mycorrhizal mutualists of plants. Trends in Ecology and Evolution, 1994, 9, 251-255.	8.7	189
10	The role of locally adapted mycorrhizas and rhizobacteria in plantâ€"soil feedback systems. Functional Ecology, 2016, 30, 1086-1098.	3.6	184
11	ECTOMYCORRHIZAL FUNGAL COMMUNITY STRUCTURE OF PINYON PINES GROWING IN TWO ENVIRONMENTAL EXTREMES. Ecology, 1998, 79, 1562-1572.	3.2	182
12	Shifts from competition to facilitation between a foundation tree and a pioneer shrub across spatial and temporal scales in a semiarid woodland. New Phytologist, 2007, 173, 135-145.	7.3	156
13	Mycorrhizae-Herbivore Interactions: Population and Community Consequences. Ecological Studies, 2002, , 295-320.	1.2	148
14	Home-field advantage? evidence of local adaptation among plants, soil, and arbuscular mycorrhizal fungi through meta-analysis. BMC Evolutionary Biology, 2016, 16, 122.	3.2	148
15	Environmental and genetic effects on the formation of ectomycorrhizal and arbuscular mycorrhizal associations in cottonwoods. Oecologia, 2006, 149, 158-164.	2.0	140
16	Herbivore-driven mycorrhizal mutualism in insect-susceptible pinyon pine. Nature, 1991, 353, 556-557.	27.8	138
17	Community specificity: life and afterlife effects of genes. Trends in Plant Science, 2012, 17, 271-281.	8.8	135
18	ECTOMYCORRHIZAL ABUNDANCE AND COMMUNITY COMPOSITION SHIFTS WITH DROUGHT: PREDICTIONS FROM TREE RINGS. Ecology, 2004, 85, 1072-1084.	3.2	121

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19	Host plant genetics affect hidden ecological players: links among Populus, condensed tannins, and fungal endophyte infection. Canadian Journal of Botany, 2005, 83, 356-361.	1.1	119
20	Increased moth herbivory associated with environmental stress of pinyon pine at local and regional levels. Oecologia, 1997, 109, 389-397.	2.0	105
21	Temporal variation in temperature and rainfall differentially affects ectomycorrhizal colonization at two contrasting sites. New Phytologist, 1998, 139, 733-739.	7.3	85
22	Disrupting mycorrhizal mutualisms: a potential mechanism by which exotic tamarisk outcompetes native cottonwoods. Ecological Applications, 2012, 22, 532-549.	3.8	84
23	Reduced mycorrhizae on Juniperus monosperma with mistletoe: the influence of environmental stress and tree gender on a plant parasite and a plant-fungal mutualism. Oecologia, 1992, 89, 298-303.	2.0	83
24	Deadly combination of genes and drought: increased mortality of herbivoreâ€resistant trees in a foundation species. Global Change Biology, 2009, 15, 1949-1961.	9.5	77
25	Genetically based susceptibility to herbivory influences the ectomycorrhizal fungal communities of a foundation tree species. New Phytologist, 2009, 184, 657-667.	7.3	77
26	C<scp>omparisons of ectomycorrhizae on pinyon pines</scp> (<i>P<scp>inus edulis</scp></i>;) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 4 Botany, 1994, 81, 1509-1516.	1.7	75
27	Climate relicts and their associated communities as natural ecology and evolution laboratories. Trends in Ecology and Evolution, 2014, 29, 406-416.	8.7	71
28	From Lilliput to Brobdingnag: Extending Models of Mycorrhizal Function across Scales. BioScience, 2006, 56, 889.	4.9	70
29	Soil community composition and the regulation of grazed temperate grassland. Oecologia, 2003, 137, 603-609.	2.0	63
30	Tree genotype mediates covariance among communities from microbes to lichens and arthropods. Journal of Ecology, 2015, 103, 840-850.	4.0	59
31	Plant genetics and interspecific competitive interactions determine ectomycorrhizal fungal community responses to climate change. Molecular Ecology, 2014, 23, 1379-1391.	3.9	58
32	Title is missing!. Plant Ecology, 2003, 167, 127-139.	1.6	57
33	Mycorrhizae, invasions, and the temporal dynamics of mutualism disruption. Journal of Ecology, 2017, 105, 1496-1508.	4.0	56
34	Terrestrial vertebrates promote arbuscular mycorrhizal fungal diversity and inoculum potential in a rain forest soil. Ecology Letters, 2002, 5, 540-548.	6.4	55
35	Duration of Herbivore Removal and Environmental Stress Affect the Ectomycorrhizae of Pinyon Pines. Ecology, 1995, 76, 2118-2123.	3.2	54
36	Ungulate and topographic control of arbuscular mycorrhizal fungal spore community composition in a temperate grassland. Ecology, 2010, 91, 815-827.	3.2	53

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37	Long-term effects of burning slash on plant communities and arbuscular mycorrhizae in a semi-arid woodland. Journal of Applied Ecology, 2004, 41, 379-388.	4.0	52
38	Plant genetic effects on soils under climate change. Plant and Soil, 2014, 379, 1-19.	3.7	52
39	Tree genotype and genetically based growth traits structure twig endophyte communities. American Journal of Botany, 2014, 101, 467-478.	1.7	52
40	Neighboring trees affect ectomycorrhizal fungal community composition in a woodland-forest ecotone. Mycorrhiza, 2008, 18, 363-374.	2.8	49
41	Above- and belowground responses to tree thinning depend on the treatment of tree debris. Forest Ecology and Management, 2009, 259, 71-80.	3.2	49
42	Negative Effects of Scale Insect Herbivory on the Ectomycorrhizae of Juvenile Pinyon Pine. Ecology, 1993, 74, 2297-2302.	3.2	48
43	Belowâ€ground interactions with arbuscular mycorrhizal shrubs decrease the performance of pinyon pine and the abundance of its ectomycorrhizas. New Phytologist, 2006, 171, 171-178.	7.3	46
44	Patterns of diversity and adaptation in Glomeromycota from three prairie grasslands. Molecular Ecology, 2013, 22, 2573-2587.	3.9	46
45	Continent-wide tree fecundity driven by indirect climate effects. Nature Communications, 2021, 12, 1242.	12.8	46
46	Comparisons of Ectomycorrhizae on Pinyon Pines (Pinus edulis; Pinaceae) Across Extremes of Soil Type and Herbivory. American Journal of Botany, 1994, 81, 1509.	1.7	45
47	Convergence in mycorrhizal fungal communities due to drought, plant competition, parasitism, and susceptibility to herbivory: consequences for fungi and host plants. Frontiers in Microbiology, 2014, 5, 306.	3.5	43
48	Is there tree senescence? The fecundity evidence. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	42
49	Common garden experiments disentangle plant genetic and environmental contributions to ectomycorrhizal fungal community structure. New Phytologist, 2019, 221, 493-502.	7.3	40
50	The effect of natural disturbances on forest biodiversity: an ecological synthesis. Biological Reviews, 2022, 97, 1930-1947.	10.4	40
51	Molecular characterization of pezizalean ectomycorrhizas associated with pinyon pine during drought. Mycorrhiza, 2011, 21, 431-441.	2.8	36
52	INTERACTIONS WITH JUNIPER ALTER PINYON PINE ECTOMYCORRHIZAL FUNGAL COMMUNITIES. Ecology, 2004, 85, 2687-2692.	3.2	35
53	Arbuscular mycorrhizal fungi in the tree seedlings of two Australian rain forests: occurrence, colonization, and relationships with plant performance. Mycorrhiza, 2006, 16, 89-98.	2.8	35
54	Chronic herbivory negatively impacts cone and seed production, seed quality and seedling growth of susceptible pinyon pines. Oecologia, 2005, 143, 558-565.	2.0	34

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55	Interactions between an above-ground plant parasite and below-ground ectomycorrhizal fungal communities on pinyon pine. Journal of Ecology, 2006, 94, 276-284.	4.0	33
56	SOIL RESPONSES TO MANAGEMENT, INCREASED PRECIPITATION, AND ADDED NITROGEN IN PONDEROSA PINE FORESTS. , 2007, 17, 1352-1365.		33
57	Geneticsâ€based interactions among plants, pathogens, and herbivores define arthropod community structure. Ecology, 2015, 96, 1974-1984.	3.2	33
58	Effects of a litter-disturbing bird species on tree seedling germination and survival in an Australian tropical rain forest. Journal of Tropical Ecology, 1999, 15, 737-749.	1.1	31
59	Plant species differ in early seedling growth and tissue nutrient responses to arbuscular and ectomycorrhizal fungi. Mycorrhiza, 2017, 27, 211-223.	2.8	31
60	Evidence for mutualist limitation: the impacts of conspecific density on the mycorrhizal inoculum potential of woodland soils. Oecologia, 2005, 145, 123-131.	2.0	30
61	Drought negatively affects communities on a foundation tree: growth rings predict diversity. Oecologia, 2010, 164, 751-761.	2.0	29
62	Interwoven branches of the plant and fungal trees of life. New Phytologist, 2010, 185, 874-878.	7.3	29
63	Rehabilitating Downy Brome (<i>Bromus tectorum</i>)â€“Invaded Shrublands Using Imazapic and Seeding with Native Shrubs. Invasive Plant Science and Management, 2011, 4, 223-233.	1.1	29
64	Sexual stability in the nearly dioecious <i>Pinus johannis</i> (Pinaceae). American Journal of Botany, 2013, 100, 602-612.	1.7	27
65	Exotic cheatgrass and loss of soil biota decrease the performance of a native grass. Biological Invasions, 2013, 15, 2503-2517.	2.4	27
66	Mapping the potential mycorrhizal associations of the conterminous United States of America. Fungal Ecology, 2016, 24, 139-147.	1.6	27
67	Terrestrial vertebrates alter seedling composition and richness but not diversity in an Australian tropical rain forest. Ecology, 2011, 92, 1637-1647.	3.2	25
68	Restoration of a ponderosa pine forest increases soil CO₂ efflux more than either water or nitrogen additions. Journal of Applied Ecology, 2008, 45, 913-920.	4.0	24
69	Large, high-severity burn patches limit fungal recovery 13 years after wildfire in a ponderosa pine forest. Soil Biology and Biochemistry, 2019, 139, 107616.	8.8	23
70	Consequences for ectomycorrhizal fungi of the selective loss or gain of pine across landscapes. Botany, 2014, 92, 855-865.	1.0	21
71	Reconciling disparate responses to grazing in the arbuscular mycorrhizal symbiosis. Rhizosphere, 2019, 11, 100167.	3.0	21
72	Legacy effects of tree mortality mediated by ectomycorrhizal fungal communities. New Phytologist, 2019, 224, 155-165.	7.3	21

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73	Local biotic adaptation of trees and shrubs to plant neighbors. Oikos, 2017, 126, 583-593.	2.7	20
74	Higher Temperature at Lower Elevation Sites Fails to Promote Acclimation or Adaptation to Heat Stress During Pollen Germination. Frontiers in Plant Science, 2018, 9, 536.	3.6	20
75	Ectomycorrhizal and Dark Septate Fungal Associations of Pinyon Pine Are Differentially Affected by Experimental Drought and Warming. Frontiers in Plant Science, 2020, 11, 582574.	3.6	20
76	Adaptive capacity in the foundation tree species Populus fremontii: implications for resilience to climate change and non-native species invasion in the American Southwest. , 2020, 8, coaa061.		20
77	The relationship between stem-galling wasps and mycorrhizal colonization of Quercus turbinella. Canadian Journal of Botany, 2005, 83, 1349-1353.	1.1	19
78	An elusive ectomycorrhizal fungus reveals itself: a new species of Geopora (Pyronemataceae) associated with Pinus edulis. Mycologia, 2014, 106, 553-563.	1.9	18
79	Adaptive trait syndromes along multiple economic spectra define cold and warm adapted ecotypes in a widely distributed foundation tree species. Journal of Ecology, 2021, 109, 1298-1318.	4.0	18
80	Stand-replacing wildfires alter the community structure of wood-inhabiting fungi in southwestern ponderosa pine forests of the USA. Fungal Ecology, 2013, 6, 192-204.	1.6	17
81	Species Introductions and Their Cascading Impacts on Biotic Interactions in desert riparian ecosystems. Integrative and Comparative Biology, 2015, 55, 587-601.	2.0	17
82	Tree species with limited geographical ranges show extreme responses to ectomycorrhizas. Global Ecology and Biogeography, 2018, 27, 839-848.	5.8	16
83	Familiar soil conditions help <scp><i>Pinus ponderosa</i></scp> seedlings cope with warming and drying climate. Restoration Ecology, 2020, 28, S344.	2.9	15
84	Seed reserves and light intensity affect the growth and mycorrhiza development of the seedlings of an Australian rain-forest tree. Journal of Tropical Ecology, 2004, 20, 345-349.	1.1	14
85	Persistent effects of fire severity on ponderosa pine regeneration niches and seedling growth. Forest Ecology and Management, 2020, 477, 118502.	3.2	14
86	A robust method to determine historical annual cone production among slow-growing conifers. Forest Ecology and Management, 2016, 368, 1-6.	3.2	13
87	Plant response to fungal root endophytes varies by host genotype in the foundation species <i>Spartina alterniflora</i>. American Journal of Botany, 2020, 107, 1645-1653.	1.7	13
88	Repeated Genetic and Adaptive Phenotypic Divergence across Tidal Elevation in a Foundation Plant Species. American Naturalist, 2021, 198, E152-E169.	2.1	13
89	Cheatgrass invasion alters the abundance and composition of dark septate fungal communities in sagebrush steppe. Botany, 2016, 94, 481-491.	1.0	11
90	Genetic-Based Susceptibility of a Foundation Tree to Herbivory Interacts With Climate to Influence Arthropod Community Composition, Diversity, and Resilience. Frontiers in Plant Science, 2018, 9, 1831.	3.6	11

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91	Accounting for local adaptation in ectomycorrhizas: a call to track geographical origin of plants, fungi, and soils in experiments. Mycorrhiza, 2018, 28, 187-195.	2.8	9
92	Long-Term Studies Reveal Differential Responses to Climate Change for Trees Under Soil- or Herbivore-Related Stress. Frontiers in Plant Science, 2019, 10, 132.	3.6	9
93	Hybridization in Populus alters the species composition and interactions of root-colonizing fungi: consequences for host plant performance. Botany, 2014, 92, 287-293.	1.0	8
94	Arthropod communities on hybrid and parental cottonwoods are phylogenetically structured by tree type: Implications for conservation of biodiversity in plant hybrid zones. Ecology and Evolution, 2017, 7, 5909-5921.	1.9	7
95	Plastic responses to hot temperatures homogenize riparian leaf litter, speed decomposition, and reduce detritivores. Ecology, 2021, 102, e03461.	3.2	7
96	Introduced elk alter traits of a native plant and its plant-associated arthropod community. Acta Oecologica, 2015, 67, 8-16.	1.1	5
97	UAV thermal image detects genetic trait differences among populations and genotypes of Fremont cottonwood (Populus fremontii , Salicaceae). Remote Sensing in Ecology and Conservation, 2021, 7, 245-258.	4.3	5
98	Beyond ICOM8: perspectives on advances in mycorrhizal research from 2015 to 2017. Mycorrhiza, 2018, 28, 197-201.	2.8	4
99	Plant genetic identity of foundation tree species and their hybrids affects a litter-dwelling generalist predator. Oecologia, 2014, 176, 799-810.	2.0	3
100	Pine Seeds Carry Symbionts: Endophyte Transmission Re-examined. , 2019, , 335-361.		3
101	Host identity and neighborhood trees affect belowground microbial communities in a tropical rainforest. Tropical Ecology, 2022, 63, 216-228.	1.2	3
102	Microsatellite Primers in the Foundation Tree Species Pinus edulis and P. monophylla (Pinaceae). Applications in Plant Sciences, 2013, 1, 1200552.	2.1	2