Marc W Cadotte

List of Publications by Year
in descending order

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136	14,397	31976	22166
papers	citations	53 h-index	113 g-index

143	143	143	15417
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Beyond species: functional diversity and the maintenance of ecological processes and services. Journal of Applied Ecology, 2011, 48, 1079-1087.	4.0	1,545
2	Impacts of plant diversity on biomass production increase through time because of species complementarity. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18123-18128.	7.1	1,175
3	CONSEQUENCES OF DOMINANCE: A REVIEW OF EVENNESS EFFECTS ON LOCAL AND REGIONAL ECOSYSTEM PROCESSES. Ecology, 2008, 89, 1510-1520.	3.2	720
4	A guide to phylogenetic metrics for conservation, community ecology and macroecology. Biological Reviews, 2017, 92, 698-715.	10.4	570
5	Using Phylogenetic, Functional and Trait Diversity to Understand Patterns of Plant Community Productivity. PLoS ONE, 2009, 4, e5695.	2.5	558
6	Should Environmental Filtering be Abandoned?. Trends in Ecology and Evolution, 2017, 32, 429-437.	8.7	509
7	Evolutionary history and the effect of biodiversity on plant productivity. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17012-17017.	7.1	503
8	Phylogenetic diversity and the functioning of ecosystems. Ecology Letters, 2012, 15, 637-648.	6.4	432
9	Phylogenetic diversity promotes ecosystem stability. Ecology, 2012, 93, S223.	3.2	372
10	Addition of multiple limiting resources reduces grassland diversity. Nature, 2016, 537, 93-96.	27.8	355
11	Phylogenetic diversity metrics for ecological communities: integrating species richness, abundance and evolutionary history. Ecology Letters, 2010, 13, 96-105.	6.4	340
12	Life-history correlates of plant invasiveness at regional and continental scales. Ecology Letters, 2005, 8, 1066-1074.	6.4	296
13	Functional traits explain ecosystem function through opposing mechanisms. Ecology Letters, 2017, 20, 989-996.	6.4	273
14	Functional Rarity: The Ecology of Outliers. Trends in Ecology and Evolution, 2017, 32, 356-367.	8.7	258
15	Linking community and ecosystem dynamics through spatial ecology. Ecology Letters, 2011, 14, 313-323.	6.4	213
16	Experimental evidence that evolutionarily diverse assemblages result in higher productivity. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8996-9000.	7.1	208
17	Rarest of the rare: advances in combining evolutionary distinctiveness and scarcity to inform conservation at biogeographical scales. Diversity and Distributions, 2010, 16, 376-385.	4.1	191
18	Non-native species in urban environments: patterns, processes, impacts and challenges. Biological Invasions, 2017, 19, 3461-3469.	2.4	190

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19	Is successional research nearing its climax? New approaches for understanding dynamic communities. Functional Ecology, 2015, 29, 154-164.	3.6	183
20	Dispersal, spatial scale, and species diversity in a hierarchically structured experimental landscape. Ecology Letters, 2005, 8, 548-557.	6.4	156
21	Why phylogenies do not always predict ecological differences. Ecological Monographs, 2017, 87, 535-551.	5.4	148
22	pez: phylogenetics for the environmental sciences. Bioinformatics, 2015, 31, 2888-2890.	4.1	146
23	Prioritizing phylogenetic diversity captures functional diversity unreliably. Nature Communications, 2018, 9, 2888.	12.8	144
24	Unifying measures of biodiversity: understanding when richness and phylogenetic diversity should be congruent. Diversity and Distributions, 2013, 19, 845-854.	4.1	138
25	Predicting communities from functional traits. Trends in Ecology and Evolution, 2015, 30, 510-511.	8.7	138
26	On the relationship between phylogenetic diversity and trait diversity. Ecology, 2018, 99, 1473-1479.	3.2	136
27	Management by proxy? The use of indices in applied ecology. Journal of Applied Ecology, 2015, 52, 1-6.	4.0	133
28	Ecological Patterns and Biological Invasions: Using Regional Species Inventories in Macroecology. Biological Invasions, 2006, 8, 809-821.	2.4	129
29	Convergence and divergence in a longâ€term oldâ€field succession: the importance of spatial scale and species abundance. Ecology Letters, 2016, 19, 1101-1109.	6.4	119
30	Are urban systems beneficial, detrimental, or indifferent for biological invasion?. Biological Invasions, 2017, 19, 3489-3503.	2.4	117
31	Niche Breadth: Causes and Consequences for Ecology, Evolution, and Conservation. Quarterly Review of Biology, 2020, 95, 179-214.	0.1	114
32	Diversity of plant evolutionary lineages promotes arthropod diversity. Ecology Letters, 2012, 15, 1308-1317.	6.4	108
33	The Necessity of Multitrophic Approaches in Community Ecology. Trends in Ecology and Evolution, 2018, 33, 754-764.	8.7	105
34	Species colonisation, not competitive exclusion, drives community overdispersion over longâ€term succession. Ecology Letters, 2015, 18, 964-973.	6.4	103
35	The effects of phylogenetic relatedness on invasion success and impact: deconstructing Darwin's naturalisation conundrum. Ecology Letters, 2015, 18, 1285-1292.	6.4	100
36	METACOMMUNITY INFLUENCES ON COMMUNITY RICHNESS AT MULTIPLE SPATIAL SCALES: A MICROCOSM EXPERIMENT. Ecology, 2006, 87, 1008-1016.	3.2	99

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37	Contrasting patterns of lichen functional diversity and species richness across an elevation gradient. Ecography, 2016, 39, 689-698.	4.5	93
38	Preadaptation and Naturalization of Nonnative Species: Darwin's Two Fundamental Insights into Species Invasion. Annual Review of Plant Biology, 2018, 69, 661-684.	18.7	90
39	Phylogenetic relatedness and plant invader success across two spatial scales. Diversity and Distributions, 2009, 15, 481-488.	4.1	89
40	Plants alter their vertical root distribution rather than biomass allocation in response to changing precipitation. Ecology, 2019, 100, e02828.	3.2	86
41	Difficult decisions: Strategies for conservation prioritization when taxonomic, phylogenetic and functional diversity are not spatially congruent. Biological Conservation, 2018, 225, 128-133.	4.1	82
42	Do traits and phylogeny support congruent community diversity patterns and assembly inferences?. Journal of Ecology, 2019, 107, 2065-2077.	4.0	79
43	Functional and phylogenetic structure of island bird communities. Journal of Animal Ecology, 2017, 86, 532-542.	2.8	73
44	Predicting loss of evolutionary history: Where are we?. Biological Reviews, 2017, 92, 271-291.	10.4	67
45	Assessing the utility of conserving evolutionary history. Biological Reviews, 2019, 94, 1740-1760.	10.4	65
46	The dimensionality and structure of species trait spaces. Ecology Letters, 2021, 24, 1988-2009.	6.4	63
47	Quantifying the invasiveness of species. NeoBiota, 0, 21, 7-27.	1.0	63
48	The new diversity: management gains through insights into the functional diversity of communities. Journal of Applied Ecology, 2011, 48, 1067-1069.	4.0	62
49	Increasing effects of chronic nutrient enrichment on plant diversity loss and ecosystem productivity over time. Ecology, 2021, 102, e03218.	3.2	62
50	Incorporating Geographical and Evolutionary Rarity into Conservation Prioritization. Conservation Biology, 2012, 26, 593-601.	4.7	60
51	Phylogeny in the Service of Ecological Restoration. American Journal of Botany, 2015, 102, 647-648.	1.7	59
52	Global evidence of positive biodiversity effects on spatial ecosystem stability in natural grasslands. Nature Communications, 2019, 10, 3207.	12.8	59
53	The ecology and economics of restoration: when, what, where, and how to restore ecosystems. Ecology and Society, 2018, 23, .	2.3	58
54	Phylogenetic patterns differ for native and exotic plant communities across a richness gradient in Northern California. Diversity and Distributions, 2010, 16, 892-901.	4.1	56

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55	Explaining maximum variation in productivity requires phylogenetic diversity and single functional traits. Ecology, 2015, 96, 176-183.	3.2	56
56	Gauging the impact of meta-analysis on ecology. Evolutionary Ecology, 2012, 26, 1153-1167.	1.2	55
57	Out of the shadows: multiple nutrient limitations drive relationships among biomass, light and plant diversity. Functional Ecology, 2017, 31, 1839-1846.	3.6	55
58	Plant invasion alters trait composition and diversity across habitats. Ecology and Evolution, 2019, 9, 6199-6210.	1.9	55
59	Regional and global shifts in crop diversity through the Anthropocene. PLoS ONE, 2019, 14, e0209788.	2.5	53
60	Biodiversity assessments: Origin matters. PLoS Biology, 2018, 16, e2006686.	5.6	52
61	Greater than the sum of the parts: how the species composition in different forest strata influence ecosystem function. Ecology Letters, 2019, 22, 1449-1461.	6.4	51
62	Temporal changes in spatial variation: partitioning the extinction and colonisation components of beta diversity. Ecology Letters, 2021, 24, 1063-1072.	6.4	49
63	Functional response of lignicolous fungal guilds to bark beetle deforestation. Ecological Indicators, 2016, 65, 149-160.	6.3	48
64	The effects of resource enrichment, dispersal, and predation on local and metacommunity structure. Oecologia, 2006, 149, 150-157.	2.0	47
65	Constructing Nature: Laboratory Models as Necessary Tools for Investigating Complex Ecological Communities. Advances in Ecological Research, 2005, , 333-353.	2.7	46
66	Plant genetics shapes inquiline community structure across spatial scales. Ecology Letters, 2009, 12, 285-292.	6.4	43
67	Phylogenetically diverse grasslands are associated with pairwise interspecific processes that increase biomass. Ecology, 2011, 92, 1385-1392.	3.2	43
68	Warming affects foliar fungal diseases more than precipitation in a Tibetan alpine meadow. New Phytologist, 2019, 221, 1574-1584.	7.3	42
69	Evolutionary and ecological influences of plant invader success in the flora of Ontario. Ecoscience, 2006, 13, 388-395.	1.4	40
70	Contrasting effects of phylogenetic relatedness on plant invader success in experimental grassland communities. Journal of Applied Ecology, 2015, 52, 89-99.	4.0	40
71	Herbivores safeguard plant diversity by reducing variability in dominance. Journal of Ecology, 2018, 106, 101-112.	4.0	40
72	Negative effects of nitrogen override positive effects of phosphorus on grassland legumes worldwide. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	40

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73	The importance of accounting for imperfect detection when estimating functional and phylogenetic community structure. Ecology, 2018, 99, 2103-2112.	3.2	38
74	Biodiversity and ecosystem function: making sense of numerous species interactions in multiâ€species communities. Ecology, 2017, 98, 1771-1778.	3.2	36
75	Phylogenetic turnover patterns consistent with niche conservatism in montane plant species. Journal of Ecology, 2015, 103, 742-749.	4.0	35
76	Climate modifies response of non-native and native species richness to nutrient enrichment. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150273.	4.0	34
77	Deconstructing the relationships between phylogenetic diversity and ecology: a case study on ecosystem functioning. Ecology, 2016, 97, 2212-2222.	3.2	34
78	On the extinction of the singleâ€authored paper: The causes and consequences of increasingly collaborative applied ecological research. Journal of Applied Ecology, 2018, 55, 1-4.	4.0	34
79	The ecology of biological invasions: past, present and future. , 2005, , 19-43.		33
80	Invasion drives plant diversity loss through competition and ecosystem modification. Journal of Ecology, 2021, 109, 3587-3601.	4.0	33
81	Forest community assembly is driven by different strataâ€dependent mechanisms along an elevational gradient. Journal of Biogeography, 2019, 46, 2174-2187.	3.0	32
82	Functional and phylogenetic diversity explain different components of diversity effects on biomass production. Oikos, 2020, 129, 1185-1195.	2.7	32
83	Phylogenetic diversity and productivity: gauging interpretations from experiments that do not manipulate phylogenetic diversity. Functional Ecology, 2015, 29, 1603-1606.	3.6	31
84	Solving environmental problems in the Anthropocene: the need to bring novel theoretical advances into the applied ecology fold. Journal of Applied Ecology, 2017, 54, 1-6.	4.0	30
85	Phylogenetic Patterns of Colonization and Extinction in Experimentally Assembled Plant Communities. PLoS ONE, 2011, 6, e19363.	2.5	30
86	Ensuring applied ecology has impact. Journal of Applied Ecology, 2012, 49, 1-5.	4.0	29
87	Phylogenetic ecology and the greening of cities. Journal of Applied Ecology, 2016, 53, 1470-1476.	4.0	29
88	Invasive dominance and resident diversity: unpacking the impact of plant invasion on biodiversity and ecosystem function. Ecological Monographs, 2020, 90, e01425.	5.4	27
89	Elevational patterns of bird functional and phylogenetic structure in the central Himalaya. Ecography, 2021, 44, 1403-1417.	4.5	27
90	Transforming ecosystems: When, where, and how to restore contaminated sites. Integrated Environmental Assessment and Management, 2016, 12, 273-283.	2.9	24

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91	Planting accelerates restoration of tropical forest but assembly mechanisms appear insensitive to initial composition. Journal of Applied Ecology, 2018, 55, 986-996.	4.0	22
92	Individualâ€based models of community assembly: Neighbourhood competition drives phylogenetic community structure. Journal of Ecology, 2019, 107, 735-746.	4.0	22
93	Manipulating plant phylogenetic diversity for green roof ecosystem service delivery. Evolutionary Applications, 2018, 11, 2014-2024.	3.1	21
94	The application of selected invasion frameworks to urban ecosystems. NeoBiota, 0, 62, 365-386.	1.0	21
95	Phylogenetic diversityâ€“ecosystem function relationships are insensitive to phylogenetic edge lengths. Functional Ecology, 2015, 29, 718-723.	3.6	20
96	Phylogenetic conservatism and climate factors shape flowering phenology in alpine meadows. Oecologia, 2016, 182, 419-428.	2.0	20
97	Species responses to changing precipitation depend on trait plasticity rather than trait means and intraspecific variation. Functional Ecology, 2020, 34, 2622-2633.	3.6	20
98	Mycorrhizal type influences plant density dependence and species richness across 15 temperate forests. Ecology, 2021, 102, e03259.	3.2	20
99	The latitudinal gradient in plant community assembly processes: AÂmetaâ€analysis. Ecology Letters, 2022, 25, 1711-1724.	6.4	20
100	Quantifying Biodiversity: Does It Matter What We Measure?. , 2011, , 43-60.		18
101	Phylogenetic diversity and ecological features in the Egyptian flora. Biodiversity and Conservation, 2002, 11, 1809-1824.	2.6	17
102	Restorationâ€oriented forest management affects community assembly patterns of deadwoodâ€dependent organisms. Journal of Applied Ecology, 2020, 57, 2429-2440.	4.0	17
103	Darwin to Elton: early ecology and the problem of invasive species. , 2006, , 15-33.		17
104	Biodiversity explains maximum variation in productivity under experimental warming, nitrogen addition, and grazing in mountain grasslands. Ecology and Evolution, 2018, 8, 10094-10112.	1.9	16
105	Richness, phylogenetic diversity, and abundance all have positive effects on invader performance in an arid ecosystem. Ecosphere, 2020, 11, e03045.	2.2	16
106	Phylogenetic and functional clustering illustrate the roles of adaptive radiation and dispersal filtering in jointly shaping lateâ€Quaternary mammal assemblages on oceanic islands. Ecology Letters, 2022, 25, 1250-1262.	6.4	16
107	Explaining ecosystem multifunction with evolutionary models. Ecology, 2017, 98, 3175-3187.	3.2	14
108	Lost in trait space: species-poor communities are inflexible in properties that drive ecosystem functioning. Advances in Ecological Research, 2019, , 91-131.	2.7	14

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109	Urbanization and plant invasion alter the structure of litter microarthropod communities. Journal of Animal Ecology, 2020, 89, 2496-2507.	2.8	14
110	Nonâ€random loss of phylogenetically distinct rare species degrades phylogenetic diversity in semiâ€natural grasslands. Journal of Applied Ecology, 2019, 56, 1419-1428.	4.0	13
111	Reply to: â€œGlobal conservation of phylogenetic diversity captures more than just functional diversityâ€. Nature Communications, 2019, 10, 858.	12.8	13
112	Including distantly related taxa can bias phylogenetic tests. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E536.	7.1	12
113	Experimental dominant plant removal results in contrasting assembly for dominant and nonâ€dominant plants. Ecology Letters, 2019, 22, 1233-1242.	6.4	12
114	Multiâ€trophic metacommunity interactions mediate asynchrony and stability in fluctuating environments. Ecological Monographs, 2022, 92, e1484.	5.4	12
115	Biodiversity responses to restoration across the Brazilian Atlantic Forest. Science of the Total Environment, 2022, 821, 153403.	8.0	12
116	Neighborhood interactions on seedling survival were greatly altered following an extreme winter storm. Forest Ecology and Management, 2020, 461, 117940.	3.2	11
117	Conservation of Species- and Trait-Based Modeling Network Interactions in Extremely Acidic Microbial Community Assembly. Frontiers in Microbiology, 2017, 8, 1486.	3.5	10
118	Nitrogen alters effects of disturbance on annual grassland community diversity: Implications for restoration. Journal of Ecology, 2019, 107, 2054-2064.	4.0	10
119	Trait dimensionality and population choice alter estimates of phenotypic dissimilarity. Ecology and Evolution, 2017, 7, 2273-2285.	1.9	9
120	The mechanisms generating community phylogenetic patterns change with spatial scale. Oecologia, 2020, 193, 655-664.	2.0	9
121	Core and Satellite Species in Degraded Habitats: an Analysis Using Malagasy Tree Communities. Biodiversity and Conservation, 2007, 16, 2515-2529.	2.6	8
122	Heterogeneity in patterns of survival of the invasive species Ipomoea carnea in urban habitats along the Egyptian Nile Delta. NeoBiota, 0, 33, 1-17.	1.0	8
123	Opposing community assembly patterns for dominant and nondominant plant species in herbaceous ecosystems globally. Ecology and Evolution, 2021, 11, 17744-17761.	1.9	8
124	Individualâ€level leaf trait variation and correlation across biological and spatial scales. Ecology and Evolution, 2021, 11, 5344-5354.	1.9	7
125	A replicated study on the response of spider assemblages to regional and local processes. Ecological Monographs, 2022, 92, .	5.4	6
126	Prioritizing terrestrial invasive alien plant species for management in urban ecosystems. Journal of Applied Ecology, 2022, 59, 872-883.	4.0	6

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127	Embracing the Nonindependence of the Environmental Filter: A Reply to Responses. Trends in Ecology and Evolution, 2017, 32, 886-887.	8.7	5
128	Trait hierarchies are stronger than trait dissimilarities in structuring spatial coâ€occurrence patterns of common tree species in a subtropical forest. Ecology and Evolution, 2021, 11, 7366-7377.	1.9	5
129	Scaleâ€dependent shifts in functional and phylogenetic structure of Mediterranean island plant communities over two centuries. Journal of Ecology, 2021, 109, 3513.	4.0	5
130	Habitat loss-biodiversity relationships are influenced by assembly processes and the spatial configuration of area loss. Forest Ecology and Management, 2021, 496, 119452.	3.2	5
131	A Common Toolbox to Understand, Monitor or Manage Rarity? A Response to Carmona et al.. Trends in Ecology and Evolution, 2017, 32, 891-893.	8.7	4
132	The list of vascular plants for the city of Toronto. Ecological Solutions and Evidence, 2021, 2, e12036.	2.0	4
133	Host plant environmental filtering drives foliar fungal community assembly in symptomatic leaves. Oecologia, 2021, 195, 737-749.	2.0	4
134	Phylogenetic Diversity of Urban Floras in the Central Urals. Frontiers in Ecology and Evolution, 2021, 9, .	2.2	4
135	National-scale changes in crop diversity through the Anthropocene. Scientific Reports, 2021, 11, 20361.	3.3	4
136	Coâ€designed ecological research for more effective management and conservation. Ecological Solutions and Evidence, 2022, 3, .	2.0	2