Peter Adler

List of Publications by Year
in descending order

119 papers	14,769 citations	34076 52 h-index	21521 114 g-index
130 all docs	130 docs citations	130 times ranked	15155 citing authors

#	Article	IF	Citations
1	A meta-analysis of biotic resistance to exotic plant invasions. Ecology Letters, 2004, 7, 975-989.	3.0	1,149
2	Community assembly, coexistence and the environmental filtering metaphor. Functional Ecology, 2015, 29, 592-599.	1.7	1,126
3	A niche for neutrality. Ecology Letters, 2007, 10, 95-104.	3.0	887
4	Herbivores and nutrients control grassland plant diversity via light limitation. Nature, 2014, 508, 517-520.	13.7	669
5	Plant diversity predicts beta but not alpha diversity of soil microbes across grasslands worldwide. Ecology Letters, 2015, 18, 85-95.	3.0	612
6	Integrative modelling reveals mechanisms linking productivity and plant species richness. Nature, 2016, 529, 390-393.	13.7	564
7	Beyond pairwise mechanisms of species coexistence in complex communities. Nature, 2017, 546, 56-64.	13.7	544
8	Functional traits explain variation in plant life history strategies. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 740-745.	3.3	473
9	Productivity Is a Poor Predictor of Plant Species Richness. Science, 2011, 333, 1750-1753.	6.0	463
10	Traitâ€based tests of coexistence mechanisms. Ecology Letters, 2013, 16, 1294-1306.	3.0	422
11	Eutrophication weakens stabilizing effects of diversity in natural grasslands. Nature, 2014, 508, 521-525.	13.7	409
12	Grassland productivity limited by multiple nutrients. Nature Plants, 2015, 1, 15080.	4.7	403
13	Addition of multiple limiting resources reduces grassland diversity. Nature, 2016, 537, 93-96.	13.7	355
14	Finding generality in ecology: a model for globally distributed experiments. Methods in Ecology and Evolution, 2014, 5, 65-73.	2.2	353
15	Climate variability has a stabilizing effect on the coexistence of prairie grasses. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12793-12798.	3.3	285
16	Competition and coexistence in plant communities: intraspecific competition is stronger than interspecific competition. Ecology Letters, 2018, 21, 1319-1329.	3.0	283
17	Coexistence of perennial plants: an embarrassment of niches. Ecology Letters, 2010, 13, 1019-1029.	3.0	230
18	Sensitivity of mean annual primary production to precipitation. Global Change Biology, 2012, 18, 2246-2255.	4.2	201

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19	Contrasting relationships between precipitation and species richness in space and time. Oikos, 2007, 116, 221-232.	1.2	183
20	The power of time: spatiotemporal scaling of species diversity. Ecology Letters, 2003, 6, 749-756.	3.0	178
21	Local loss and spatial homogenization of plant diversity reduce ecosystem multifunctionality. Nature Ecology and Evolution, 2018, 2, 50-56.	3.4	172
22	A practical guide to selecting models for exploration, inference, and prediction in ecology. Ecology, 2021, 102, e03336.	1.5	170
23	Lifeâ€history constraints in grassland plant species: a growthâ€defence tradeâ€off is the norm. Ecology Letters, 2013, 16, 513-521.	3.0	165
24	An expanded modern coexistence theory for empirical applications. Ecology Letters, 2019, 22, 3-18.	3.0	147
25	Functional traits of graminoids in semi-arid steppes: a test of grazing histories. Journal of Applied Ecology, 2004, 41, 653-663.	1.9	145
26	Plant speciesâ€™ origin predicts dominance and response to nutrient enrichment and herbivores in global grasslands. Nature Communications, 2015, 6, 7710.	5.8	143
27	Large niche differences emerge at the recruitment stage to stabilize grassland coexistence. Ecological Monographs, 2015, 85, 373-392.	2.4	137
28	Forecasting plant community impacts of climate variability and change: when do competitive interactions matter?. Journal of Ecology, 2012, 100, 478-487.	1.9	135
29	Synchrony matters more than species richness in plant community stability at a global scale. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 24345-24351.	3.3	113
30	The Net Effect of Functional Traits on Fitness. Trends in Ecology and Evolution, 2020, 35, 1037-1047.	4.2	107
31	Causal networks clarify productivityâ€"richness interrelations, bivariate plots do not. Functional Ecology, 2014, 28, 787-798.	1.7	106
32	Demography of perennial grassland plants: survival, life expectancy and life span. Journal of Ecology, 2008, 96, 1023-1032.	1.9	101
33	Climate influences the demography of three dominant sagebrush steppe plants. Ecology, 2011, 92, 75-85.	1.5	98
34	Leaf nutrients, not specific leaf area, are consistent indicators of elevated nutrient inputs. Nature Ecology and Evolution, 2019, 3, 400-406.	3.4	97
35	PLANT TRAITS AND ECOSYSTEM GRAZING EFFECTS: COMPARISON OF U.S. SAGEBRUSH STEPPE AND PATAGONIAN STEPPE. , 2005, 15, 774-792.		94
36	THE INFLUENCE OF CLIMATE AND SPECIES COMPOSITION ON THE POPULATION DYNAMICS OF TEN PRAIRIE FORBS. Ecology, 2008, 89, 3049-3060.	1.5	91

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37	Environmental Variation, Stochastic Extinction, and Competitive Coexistence. American Naturalist, 2008, 172, E186-E195.	1.0	90
38	The effects of intransitive competition on coexistence. Ecology Letters, 2017, 20, 791-800.	3.0	90
39	Abundance of introduced species at home predicts abundance away in herbaceous communities. Ecology Letters, 2011, 14, 274-281.	3.0	88
40	Can lifeâ€history traits predict the response of forb populations to changes in climate variability?. Journal of Ecology, 2010, 98, 209-217.	1.9	87
41	NEUTRAL MODELS FAIL TO REPRODUCE OBSERVED SPECIESâ€“AREA AND SPECIESâ€“TIME RELATIONSHIPS IN KANSAS GRASSLANDS. Ecology, 2004, 85, 1265-1272.	1.5	83
42	Integrating spatial and temporal approaches to understanding species richness. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 3633-3643.	1.8	81
43	How to quantify the temporal storage effect using simulations instead of math. Ecology Letters, 2016, 19, 1333-1342.	3.0	80
44	Sensitivity of global soil carbon stocks to combined nutrient enrichment. Ecology Letters, 2019, 22, 936-945.	3.0	75
45	General destabilizing effects of eutrophication on grassland productivity at multiple spatial scales. Nature Communications, 2020, 11, 5375.	5.8	75
46	Predicting invasion in grassland ecosystems: is exotic dominance the real embarrassment of richness?. Global Change Biology, 2013, 19, 3677-3687.	4.2	70
47	Strong selfâ€limitation promotes the persistence of rare species. Ecology, 2012, 93, 456-461.	1.5	69
48	Contrasting Effects of Precipitation Manipulations on Production in Two Sites within the Central Grassland Region, USA. Ecosystems, 2013, 16, 1039-1051.	1.6	64
49	Warming, competition, and <i>Bromus tectorum</i> population growth across an elevation gradient. Ecosphere, 2014, 5, 1-34.	1.0	63
50	Survival rates indicate that correlations between communityâ€weighted mean traits and environments can be unreliable estimates of the adaptive value of traits. Ecology Letters, 2018, 21, 411-421.	3.0	62
51	Increasing effects of chronic nutrient enrichment on plant diversity loss and ecosystem productivity over time. Ecology, 2021, 102, e03218.	1.5	62
52	Linking demography with drivers: climate and competition. Methods in Ecology and Evolution, 2016, 7, 171-183.	2.2	60
53	Water and nitrogen uptake are better associated with resource availability than root biomass. Ecosphere, 2017, 8, e01738.	1.0	59
54	Soil net nitrogen mineralisation across global grasslands. Nature Communications, 2019, 10, 4981.	5.8	57

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55	Out of the shadows: multiple nutrient limitations drive relationships among biomass, light and plant diversity. Functional Ecology, 2017, 31, 1839-1846.	1.7	55
56	The development of forage production and utilization gradients around livestock watering points. Landscape Ecology, 2005, 20, 319-333.	1.9	54
57	Direct and Indirect Effects of Climate Change on a Prairie Plant Community. PLoS ONE, 2009, 4, e6887.	1.1	51
58	Weak effect of climate variability on coexistence in a sagebrush steppe community. Ecology, 2009, 90, 3303-3312.	1.5	47
59	Multiâ€model comparison highlights consistency in predicted effect of warming on a semiâ€arid shrub. Global Change Biology, 2018, 24, 424-438.	4.2	47
60	Linking transient dynamics and life history to biological invasion success. Journal of Ecology, 2016, 104, 399-408.	1.9	46
61	Environmental responses, not species interactions, determine synchrony of dominant species in semiarid grasslands. Ecology, 2017, 98, 971-981.	1.5	43
62	Do persistent rare species experience stronger negative frequency dependence than common species?. Global Ecology and Biogeography, 2017, 26, 513-523.	2.7	43
63	Nutrient availability controls the impact of mammalian herbivores on soil carbon and nitrogen pools in grasslands. Global Change Biology, 2020, 26, 2060-2071.	4.2	43
64	Herbivory and eutrophication mediate grassland plant nutrient responses across a global climatic gradient. Ecology, 2018, 99, 822-831.	1.5	42
65	Increased soil temperature and decreased precipitation during early life stages constrain grass seedling recruitment in cold desert restoration. Journal of Applied Ecology, 2019, 56, 2609-2619.	1.9	42
66	Contrasting effects of precipitation manipulations in two Great Plains plant communities. Journal of Vegetation Science, 2017, 28, 238-249.	1.1	41
67	Climate and local environment structure asynchrony and the stability of primary production in grasslands. Global Ecology and Biogeography, 2020, 29, 1177-1188.	2.7	41
68	The response of big sagebrush (<i>Artemisia tridentata</i>) to interannual climate variation changes across its range. Ecology, 2018, 99, 1139-1149.	1.5	40
69	LONG-TERM MAPPED QUADRATS FROM KANSAS PRAIRIE: DEMOGRAPHIC INFORMATION FOR HERBACEOUS PLANTS. Ecology, 2007, 88, 2673-2673.	1.5	38
70	Effects of precipitation on photosynthesis and water potential in Andropogon gerardii and Schizachyrium scoparium in a southern mixed grass prairie. Environmental and Experimental Botany, 2011, 72, 223-231.	2.0	38
71	Spatial heterogeneity in species composition constrains plant community responses to herbivory and fertilisation. Ecology Letters, 2018, 21, 1364-1371.	3.0	38
72	Forecasting climate change impacts on plant populations over large spatial extents. Ecosphere, 2016, 7, e01525.	1.0	35

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73	Nutrients cause grassland biomass to outpace herbivory. Nature Communications, 2020, 11, 6036.	5.8	35
74	Anticipating changes in variability of grassland production due to increases in interannual precipitation variability. Ecosphere, 2014, 5, 1-15.	1.0	34
75	Direct effects dominate responses to climate perturbations in grassland plant communities. Nature Communications, 2016, 7, 11766.	5.8	34
76	Belowground Biomass Response to Nutrient Enrichment Depends on Light Limitation Across Globally Distributed Grasslands. Ecosystems, 2019, 22, 1466-1477.	1.6	34
77	Anthropogenicâ€based regionalâ€scale factors most consistently explain plotâ€level exotic diversity in grasslands. Global Ecology and Biogeography, 2014, 23, 802-810.	2.7	32
78	The relationship between species richness and ecosystem variability is shaped by the mechanism of coexistence. Ecology Letters, 2017, 20, 958-968.	3.0	32
79	Do we need demographic data to forecast plant population dynamics?. Methods in Ecology and Evolution, 2017, 8, 541-551.	2.2	32
80	Response to Comments on â€œProductivity Is a Poor Predictor of Plant Species Richnessâ€. Science, 2012, 335, 1441-1441.	6.0	30
81	Hydrologic niches explain species coexistence and abundance in a shrubâ€"steppe system. Journal of Ecology, 2020, 108, 998-1008.	1.9	30
82	Mapped quadrats in sagebrush steppe: longâ€term data for analyzing demographic rates and plantâ€"plant interactions. Ecology, 2010, 91, 3427-3427.	1.5	29
83	Relationships between plantâ€"soil feedbacks and functional traits. Journal of Ecology, 2021, 109, 3411-3423.	1.9	29
84	Coexistence and Coevolution in Fluctuating Environments: Can the Storage Effect Evolve?. American Naturalist, 2011, 178, E76-E84.	1.0	27
85	On testing the role of niche differences in stabilizing coexistence. Functional Ecology, 2008, 22, 934-936.	1.7	26
86	Global impacts of fertilization and herbivore removal on soil net nitrogen mineralization are modulated by local climate and soil properties. Global Change Biology, 2020, 26, 7173-7185.	4.2	25
87	Nutrient enrichment increases invertebrate herbivory and pathogen damage in grasslands. Journal of Ecology, 2022, 110, 327-339.	1.9	25
88	When should plant population models include age structure?. Journal of Ecology, 2014, 102, 531-543.	1.9	24
89	Fourteen years of mapped, permanent quadrats in a northern mixed prairie, USA. Ecology, 2011, 92, 1703-1703.	1.5	23
90	Matching the forecast horizon with the relevant spatial and temporal processes and data sources. Ecography, 2020, 43, 1729-1739.	2.1	23

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91	Life form influences survivorship patterns for 109 herbaceous perennials from six semiâ€arid ecosystems. Journal of Vegetation Science, 2014, 25, 947-954.	1.1	21
92	Sizeâ€byâ€environment interactions: a neglected dimension of species' responses to environmental variation. Ecology Letters, 2018, 21, 1757-1770.	3.0	21
93	The plant diversity sampling design for The National Ecological Observatory Network. Ecosphere, 2019, 10, e02603.	1.0	19
94	Biotic vs abiotic controls on temporal sensitivity of primary production to precipitation across North American drylands. New Phytologist, 2021, 231, 2150-2161.	3.5	18
95	Indirect Effects of Environmental Change in Resource Competition Models. American Naturalist, 2015, 186, 766-776.	1.0	17
96	Technical Comment on Pande <i>et al</i>. (2020): Why invasion analysis is important for understanding coexistence. Ecology Letters, 2020, 23, 1721-1724.	3.0	17
97	Nutrient identity modifies the destabilising effects of eutrophication in grasslands. Ecology Letters, 2022, 25, 754-765.	3.0	17
98	Comment on â€œWorldwide evidence of a unimodal relationship between productivity and plant species richnessâ€. Science, 2016, 351, 457-457.	6.0	16
99	Weak interspecific interactions in a sagebrush steppe? Conflicting evidence from observations and experiments. Ecology, 2018, 99, 1621-1632.	1.5	16
100	What processes must we understand to forecast regional-scale population dynamics?. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20202219.	1.2	16
101	Impacts of climate change on multiple use management of Bureau of Land Management land in the Intermountain West, USA. Ecosphere, 2020, 11, e03286.	1.0	14
102	Temporal rarity is a better predictor of local extinction risk than spatial rarity. Ecology, 2021, 102, e03504.	1.5	14
103	Species loss due to nutrient addition increases with spatial scale in global grasslands. Ecology Letters, 2021, 24, 2100-2112.	3.0	13
104	Cover and density of semi-desert grassland plants in permanent quadrats mapped from 1915 to 1947. Ecology, 2012, 93, 1492-1492.	1.5	12
105	Nitrogen increases earlyâ€stage and slows lateâ€stage decomposition across diverse grasslands. Journal of Ecology, 2022, 110, 1376-1389.	1.9	12
106	Ecosystem functional response across precipitation extremes in a sagebrush steppe. PeerJ, 2018, 6, e4485.	0.9	11
107	Direct effects of warming increase woody plant abundance in a subarctic wetland. Ecology and Evolution, 2018, 8, 2868-2879.	0.8	10
108	Influence of water Availability on Photosynthesis, Water Potential, Leaf Î´¹³C, and Phenology in Dominant C₄Grasses In Kansas, USA. Transactions of the Kansas Academy of Science, 2015, 118, 173-193.	0.0	9

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109	Agreement and Uncertainty Among Climate Change Impact Models: A Synthesis of Sagebrush Steppe Vegetation Projections. Rangeland Ecology and Management, 2021, 75, 119-129.	1.1	9
110	Can the past predict the future? Experimental tests of historically based population models. Global Change Biology, 2013, 19, 1793-1803.	4.2	7
111	Mycorrhization rates of two grasses following alterations in moisture inputs in a southern mixed grass prairie. Applied Soil Ecology, 2012, 60, 56-60.	2.1	6
112	Toward a â€œmodern coexistence theoryâ€• for the discrete and spatial. Ecological Monographs, 2022, 92, .	2.4	6
113	Cover, density, and demographics of shortgrass steppe plants mapped 1997â€“2010 in permanent grazed and ungrazed quadrats. Ecology, 2013, 94, 1435-1435.	1.5	5
114	Climate change, snow mold and the Bromus tectorum invasion: mixed evidence for release from cold weather pathogens. AoB PLANTS, 2019, 11, plz043.	1.2	5
115	Water availability dictates how plant traits predict demographic rates. Ecology, 2022, 103, .	1.5	5
116	Quadratâ€based monitoring of desert grassland vegetation at the Jornada Experimental Range, New Mexico, 1915â€“2016. Ecology, 2021, 102, e03530.	1.5	4
117	LOTVS: A global collection of permanent vegetation plots. Journal of Vegetation Science, 2022, 33, .	1.1	4
118	A critical comparison of integral projection and matrix projection models for demographic analysis: Comment. Ecology, 2022, 103, e3605.	1.5	2
119	The influence of lifeâ€history strategy on ecosystem sensitivity to resource fluctuations. Journal of Ecology, 2021, 109, 4081-4091.	1.9	1