Bill Shipley

List of Publications by Year
in descending order

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147 papers	18,556 citations	28242 55 h-index	15249 126 g-index
157 all docs	157 docs citations	157 times ranked	18785 citing authors

#	Article	IF	Citations
1	The global spectrum of plant form and function. Nature, 2016, 529, 167-171.	13.7	2,022
2	TRY â€“ a global database of plant traits. Global Change Biology, 2011, 17, 2905-2935.	4.2	2,002
3	TRY plant trait database â€“ enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	4.2	1,038
4	A global metaâ€analysis of the relative extent of intraspecific trait variation in plant communities. Ecology Letters, 2015, 18, 1406-1419.	3.0	768
5	Confirmatory path analysis in a generalized multilevel context. Ecology, 2009, 90, 363-368.	1.5	721
6	From Plant Traits to Plant Communities: A Statistical Mechanistic Approach to Biodiversity. Science, 2006, 314, 812-814.	6.0	517
7	Abiotic drivers and plant traits explain landscapeâ€scale patterns in soil microbial communities. Ecology Letters, 2012, 15, 1230-1239.	3.0	511
8	The balanced-growth hypothesis and the allometry of leaf and root biomass allocation. Functional Ecology, 2002, 16, 326-331.	1.7	448
9	FUNDAMENTAL TRADE-OFFS GENERATING THE WORLDWIDE LEAF ECONOMICS SPECTRUM. Ecology, 2006, 87, 535-541.	1.5	422
10	The AIC model selection method applied to path analytic models compared using a dâ€separation test. Ecology, 2013, 94, 560-564.	1.5	389
11	Specific Leaf Area and Dry Matter Content Estimate Thickness in Laminar Leaves. Annals of Botany, 2005, 96, 1129-1136.	1.4	374
12	A Modern Tool for Classical Plant Growth Analysis. Annals of Botany, 2002, 90, 485-488.	1.4	370
13	Reinforcing loose foundation stones in trait-based plant ecology. Oecologia, 2016, 180, 923-931.	0.9	335
14	A global method for calculating plant <scp>CSR</scp> ecological strategies applied across biomes worldâ€wide. Functional Ecology, 2017, 31, 444-457.	1.7	330
15	A New Inferential Test for Path Models Based on Directed Acyclic Graphs. Structural Equation Modeling, 2000, 7, 206-218.	2.4	308
16	Competitive Hierarchies in Herbaceous Plant Communities. Oikos, 1989, 54, 234.	1.2	268
17	Net assimilation rate, specific leaf area and leaf mass ratio: which is most closely correlated with relative growth rate? A meta-analysis. Functional Ecology, 2006, 20, 565-574.	1.7	242
18	Is leaf dry matter content a better predictor of soil fertility than specific leaf area?. Annals of Botany, 2011, 108, 1337-1345.	1.4	219

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19	Trade-offs between net assimilation rate and specific leaf area in determining relative growth rate: relationship with daily irradiance. Functional Ecology, 2002, 16, 682-689.	1.7	205
20	The Allometry of Seed Production in Herbaceous Angiosperms. American Naturalist, 1992, 139, 467-483.	1.0	195
21	Co-variations in litter decomposition, leaf traits and plant growth in species from a Mediterranean old-field succession. Functional Ecology, 2006, 20, 21-30.	1.7	194
22	Interacting determinants of specific leaf area in 22 herbaceous species: effects of irradiance and nutrient availability. Plant, Cell and Environment, 1999, 22, 447-459.	2.8	186
23	Dry matter content as a measure of dry matter concentration in plants and their parts. New Phytologist, 2002, 153, 359-364.	3.5	182
24	"Diminishing returns" in the scaling of functional leaf traits across and within species groups. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8891-8896.	3.3	177
25	Ecosystem productivity can be predicted from potential relative growth rate and species abundance. Ecology Letters, 2006, 9, 1061-1067.	3.0	172
26	The individualistic and community-unit concepts as falsifiable hypotheses. Plant Ecology, 1987, 69, 47-55.	1.2	167
27	A STRUCTURAL EQUATION MODEL TO INTEGRATE CHANGES IN FUNCTIONAL STRATEGIES DURING OLD-FIELD SUCCESSION. Ecology, 2006, 87, 504-517.	1.5	151
28	Interâ€specific and intraâ€specific trait variation along short environmental gradients in an oldâ€growth temperate forest. Journal of Vegetation Science, 2013, 24, 419-428.	1.1	150
29	Direct and Indirect Relationships Between Specific Leaf Area, Leaf Nitrogen and Leaf Gas Exchange. Effects of Irradiance and Nutrient Supply. Annals of Botany, 2001, 88, 915-927.	1.4	148
30	Traits to stay, traits to move: a review of functional traits to assess sensitivity and adaptive capacity of temperate and boreal trees to climate change. Environmental Reviews, 2016, 24, 164-186.	2.1	146
31	Plant Competition in Relation to Neighbor Biomass: An Intercontinental Study with POA Pratensis. Ecology, 1994, 75, 1753-1760.	1.5	120
32	A Test of the Tilman Model of Plant Strategies: Relative Growth Rate and Biomass Partitioning. American Naturalist, 1990, 136, 139-153.	1.0	115
33	Towards a thesaurus of plant characteristics: an ecological contribution. Journal of Ecology, 2017, 105, 298-309.	1.9	114
34	Which plant traits determine abundance under longâ€term shifts in soil resource availability and grazing intensity?. Journal of Ecology, 2012, 100, 662-677.	1.9	107
35	Exploratory Path Analysis With Applications in Ecology and Evolution. American Naturalist, 1997, 149, 1113-1138.	1.0	105
36	Leaf structure and specific leaf mass: the alpine desert plants of the Eastern Pamirs, Tadjikistan. New Phytologist, 1999, 143, 131-142.	3.5	105

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37	Functional linkages between leaf traits and net photosynthetic rate: reconciling empirical and mechanistic models. Functional Ecology, 2005, 19, 602-615.	1.7	95
38	Evaluating the Evidence for Competitive Hierarchies in Plant Communities. Oikos, 1994, 69, 340.	1.2	94
39	Global root traits (GRooT) database. Global Ecology and Biogeography, 2021, 30, 25-37.	2.7	90
40	Thermoregulation and habitat selection in wood turtles Glyptemys insculpta: chasing the sun slowly. Journal of Animal Ecology, 2009, 78, 1023-1032.	1.3	87
41	Quantifying the importance of local nicheâ€based and stochastic processes to tropical tree community assembly. Ecology, 2012, 93, 760-769.	1.5	86
42	Mechanisms producing plant zonation along a water depth gradient: a comparison with the exposure gradient. Canadian Journal of Botany, 1991, 69, 1420-1424.	1.2	80
43	Predicting invertebrate herbivory from plant traits: evidence from 51 grassland species in experimental monocultures. Ecology, 2012, 93, 2674-2682.	1.5	80
44	Simple measures of climate, soil properties and plant traits predict nationalâ€scale grassland soil carbon stocks. Journal of Applied Ecology, 2015, 52, 1188-1196.	1.9	79
45	Testing Causal Explanations in Organismal Biology: Causation, Correlation and Structural Equation Modelling. Oikos, 1999, 86, 374.	1.2	78
46	A Null Model for Competitive Hierarchies in Competition Matrices. Ecology, 1993, 74, 1693-1699.	1.5	75
47	<scp>CATS</scp> regression â€“ a modelâ€based approach to studying traitâ€based community assembly. Methods in Ecology and Evolution, 2015, 6, 389-398.	2.2	75
48	Experimental Evidence That Interspecific Competitive Asymmetry Increases with Soil Productivity. Oikos, 1997, 80, 253.	1.2	71
49	Interacting components of interspecific relative growth rate: constancy and change under differing conditions of light and nutrient supply. Functional Ecology, 1999, 13, 611-622.	1.7	69
50	Quantifying relationships between traits and explicitly measured gradients of stress and disturbance in early successional plant communities. Journal of Vegetation Science, 2010, 21, 1014-1024.	1.1	69
51	Habitat filtering determines the functional niche occupancy of plant communities worldwide. Journal of Ecology, 2018, 106, 1001-1009.	1.9	66
52	The leaf economics spectrum and the prediction of photosynthetic lightâ€response curves. Functional Ecology, 2010, 24, 263-272.	1.7	65
53	A Model of Species Density in Shoreline Vegetation. Ecology, 1991, 72, 1658-1667.	1.5	64
54	Why is Rhinanthus minor (Scrophulariaceae) such a good invader?. Canadian Journal of Botany, 1987, 65, 2373-2379.	1.2	61

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55	Secondary sexual characters signal fighting ability and determine social rank in Alpine ibex (Capra) Tj ETQq1 1 0.784314 rgBT /Overlock	0.6	61
56	The functional co-ordination of leaf morphology, nitrogen concentration, and gas exchange in40 wetland species. Ecoscience, 2000, 7, 183-194.	0.6	57
57	A strong test of a maximum entropy model of trait-based community assembly. Ecology, 2011, 92, 507-517.	1.5	56
58	Functional structure of an arid steppe plant community reveals similarities with Grime's Câ€Šâ€R theory. Journal of Vegetation Science, 2012, 23, 208-222.	1.1	52
59	Do plant species with high relative growth rates have poorer chemical defences?. Functional Ecology, 1999, 13, 819-827.	1.7	50
60	Community assembly, natural selection and maximum entropy models. Oikos, 2010, 119, 604-609.	1.2	50
61	Plasticity in relative growth rate and its components following a change in irradiance. Plant, Cell and Environment, 2000, 23, 1207-1216.	2.8	48
62	Prediction of in situ root decomposition rates in an interspecific context from chemical and morphological traits. Annals of Botany, 2012, 109, 287-297.	1.4	48
63	Common paths link food abundance and ectoparasite loads to physiological performance and recruitment in nestling blue tits. Functional Ecology, 2007, 21, 947-955.	1.7	47
64	Effect of chitosan and a biocontrol streptomycete on field and potato tuber bacterial communities. BioControl, 2006, 51, 533-546.	0.9	45
65	Plant traits, species pools and the prediction of relative abundance in plant communities: a maximum entropy approach. Journal of Vegetation Science, 2010, 21, 318-331.	1.1	44
66	Analysing the allometry of multiple interacting traits. Perspectives in Plant Ecology, Evolution and Systematics, 2004, 6, 235-241.	1.1	43
67	Tree communities rapidly alter soil microbial resistance and resilience to drought. Functional Ecology, 2015, 29, 570-578.	1.7	43
68	Testing models for the leaf economics spectrum with leaf and whole-plant traits inArabidopsis thaliana. AoB PLANTS, 2015, 7, plv049.	1.2	43
69	Traitâ€based climate change predictions of plant community structure in arid steppes. Journal of Ecology, 2013, 101, 484-492.	1.9	40
70	Predicting invertebrate herbivory from plant traits: Polycultures show strong nonadditive effects. Ecology, 2013, 94, 1499-1509.	1.5	39
71	Phosphorus and micronutrient dynamics during gymnosperm and angiosperm litters decomposition in temperate cold forest from Eastern Canada. Geoderma, 2016, 273, 25-31.	2.3	39
72	Predicting habitat affinities of plant species using commonly measured functional traits. Journal of Vegetation Science, 2017, 28, 1082-1095.	1.1	38

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73	Testing Recursive Path Models With Correlated Errors Using D-Separation. Structural Equation Modeling, 2003, 10, 214-221.	2.4	37
74	Interspecific consistency and intraspecific variability of specific leaf area with respect to irradiance and nutrient availability. Ecoscience, 2003, 10, 74-79.	0.6	37
75	Interspecific covariation between stomatal density and other functional leaf traits in a local flora. Botany, 2010, 88, 30-38.	0.5	36
76	Linking hard and soft traits: Physiology, morphology and anatomy interact to determine habitat affinities to soil water availability in herbaceous dicots. PLoS ONE, 2018, 13, e0193130.	1.1	35
77	Interacting determinants of interspecific relative growth: Empirical patterns and a theoretical explanation. Ecoscience, 1999, 6, 286-296.	0.6	34
78	Non-destructive estimation of root mass using electrical capacitance on ten herbaceous species. Plant and Soil, 2012, 355, 41-49.	1.8	34
79	Geographic scale and disturbance influence intraspecific trait variability in leaves and roots of North American understorey plants. Functional Ecology, 2019, 33, 1771-1784.	1.7	34
80	An experimental test of CSR theory using a globally calibrated ordination method. PLoS ONE, 2017, 12, e0175404.	1.1	34
81	Linking plant and insect traits to understand multitrophic community structure in arid steppes. Functional Ecology, 2013, 27, 786-792.	1.7	31
82	Forest Floor Bacterial Community Composition and Catabolic Profiles in Relation to Landscape Features in QuÃ©becâ€™s Southern Boreal Forest. Microbial Ecology, 2007, 54, 10-20.	1.4	30
83	Partitioning the effect of composition and diversity of tree communities on leaf litter decomposition and soil respiration. Oikos, 2017, 126, 959-971.	1.2	30
84	Regression Smoothers for Estimating Parameters of Growth Analyses. Annals of Botany, 1996, 78, 569-576.	1.4	29
85	Interspecific prediction of photosynthetic light response curves using specific leaf mass and leaf nitrogen content: effects of differences in soil fertility and growth irradiance. Annals of Botany, 2012, 109, 1149-1157.	1.4	29
86	A traits-based test of the home-field advantage in mixed-species tree litter decomposition. Annals of Botany, 2015, 116, 781-788.	1.4	28
87	Context-dependent Changes in the Weighting of Environmental Cues That Initiate Breeding in a Temperate Passerine, the Corsican Blue Tit (Cyanistes caeruleus). Auk, 2010, 127, 129-139.	0.7	27
88	Quantifying trait selection driving community assembly: a test in herbaceous plant communities under contrasted land use regimes. Oikos, 2012, 121, 1103-1111.	1.2	27
89	Limitations of entropy maximization in ecology: a reply to Haegeman and Loreau. Oikos, 2009, 118, 152-159.	1.2	26
90	Relationship between postâ€fire regeneration and leaf economics spectrum in Mediterranean woody species. Functional Ecology, 2009, 23, 103-110.	1.7	25

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91	The Seduction by Mechanism: A Reply to Tilman. American Naturalist, 1991, 138, 1276-1282.	1.0	25
92	What makes traitâ€“abundance relationships when both environmental filtering and stochastic neutral dynamics are at play?. Oikos, 2018, 127, 1735-1745.	1.2	24
93	The relationship between functional dispersion of mixedâ€species leaf litter mixtures and species' interactions during decomposition. Oikos, 2015, 124, 1050-1057.	1.2	23
94	Occupancy and overlap in trait space along a successional gradient in Mediterranean old fields. American Journal of Botany, 2016, 103, 1050-1060.	0.8	22
95	Generalized AIC and chiâ€squared statistics for path models consistent with directed acyclic graphs. Ecology, 2020, 101, e02960.	1.5	22
96	Disturbance and resource availability act differently on the same suite of plant traits: revisiting assembly hypotheses. Ecology, 2012, 93, 825-835.	1.5	21
97	Can the biomass-ratio hypothesis predict mixed-species litter decomposition along a climatic gradient?. Annals of Botany, 2014, 113, 843-850.	1.4	21
98	Mineral nitrogen and microbial dynamics in the forest floor of clearcut or partially harvested successional boreal forest stands. Plant and Soil, 2005, 271, 27-37.	1.8	20
99	Using the biomass-ratio and idiosyncratic hypotheses to predict mixed-species litter decomposition. Annals of Botany, 2013, 111, 135-141.	1.4	20
100	Community divergence and convergence along experimental gradients of stress and disturbance. Ecology, 2018, 99, 775-781.	1.5	19
101	Joint effects of maternal and offspring sizes on clutch mass and fecundity in plants and animals. Ecoscience, 1996, 3, 173-182.	0.6	18
102	Interspecific correlates of plasticity in relative growth rate following a decrease in nitrogen availability. Annals of Botany, 2010, 105, 333-339.	1.4	18
103	Direct and indirect effects of regional and local climatic factors on trophic interactions in the Arctic tundra. Journal of Animal Ecology, 2020, 89, 704-715.	1.3	18
104	Refining numerical approaches for analyzing soil microbial community catabolic profiles based on carbon source utilization patterns. Soil Biology and Biochemistry, 2006, 38, 629-632.	4.2	17
105	Plasticity in relative growth rate after a reduction in nitrogen availability is related to root morphological and physiological responses. Annals of Botany, 2010, 106, 617-625.	1.4	17
106	Measuring and interpreting traitâ€based selection versus metaâ€community effects during local community assembly. Journal of Vegetation Science, 2014, 25, 55-65.	1.1	17
107	Inferential permutation tests for maximum entropy models in ecology. Ecology, 2010, 91, 2794-2805.	1.5	16
108	Recasting the dynamic equilibrium model through a functional lens: the interplay of traitâ€based community assembly and climate. Journal of Ecology, 2016, 104, 781-791.	1.9	16

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109	Shade tolerance and the functional trait: demography relationship in temperate and boreal forests. Functional Ecology, 2017, 31, 821-830.	1.7	16
110	The complexity of traitâ€“environment performance landscapes in a local subtropical forest. New Phytologist, 2021, 229, 1388-1397.	3.5	16
111	Explaining ontogenetic shifts in rootâ€“shoot scaling with transient dynamics. Annals of Botany, 2014, 114, 513-524.	1.4	15
112	Predicting habitat affinities of herbaceous dicots to soil wetness based on physiological traits of drought tolerance. Annals of Botany, 2017, 119, 1073-1084.	1.4	15
113	Leaf and bark functional traits predict resprouting strategies of understory woody species after prescribed fires. Forest Ecology and Management, 2018, 429, 158-174.	1.4	15
114	The relative importance of abiotic conditions and subsequent land use on the boreal primary succession of acidogenic mine tailings. Ecological Engineering, 2019, 127, 66-74.	1.6	15
115	Crop functional diversity drives multiple ecosystem functions during early agroforestry succession. Journal of Applied Ecology, 2021, 58, 1718.	1.9	15
116	Differences in elemental composition of tailings, soils, and plant tissues following five decades of native plant colonization on a gold mine site in Northwestern QuÃ©bec. Chemosphere, 2020, 250, 126243.	4.2	13
117	Causal hypotheses accounting for correlations between decomposition rates of different mass fractions of leaf litter. Ecology, 2021, 102, e03196.	1.5	13
118	Soil factors controlling mineral N uptake by Picea engelmannii seedlings: the importance of gross NH 4 + production rates. New Phytologist, 2005, 165, 791-800.	3.5	12
119	Book Review of Causality: Models, Reasoning, and Inference. Structural Equation Modeling, 2000, 7, 637-639.	2.4	11
120	The measurement and quantification of generalized gradients of soil fertility relevant to plant community ecology. Ecology, 2019, 100, e02549.	1.5	11
121	Interacting effects of nutrients, pH - Al and elevated CO2 on the growth of red spruce (Picea rubens) Tj ETQq1 1 0.784314 rgBT /Over	1.1	10
122	Quantifying the relationship linking the communityâ€weighted means of plant traits and soil fertility. Ecology, 2021, 102, e03454.	1.5	10
123	Direct and Indirect Effects of Forest Anthropogenic Disturbance on Above and Below Ground Communities and Litter Decomposition. Ecosystems, 2021, 24, 1716-1737.	1.6	9
124	The effects of aluminum on Picearubens:factorial experiments using sand culture. Canadian Journal of Forest Research, 1995, 25, 8-17.	0.8	8
125	Start and Stop Rules for Exploratory Path Analysis. Structural Equation Modeling, 2002, 9, 554-561.	2.4	8
126	Trivial and nonâ€trivial applications of entropy maximization in ecology: Shipley's reply. Oikos, 2009, 118, 1279-1280.	1.2	8

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127	Describing, explaining and predicting community assembly: a convincing traitâ€based case study. Journal of Vegetation Science, 2015, 26, 615-616.	1.1	8
128	Aboveâ€•and belowground drivers of intraspecific trait variability across subcontinental gradients for five ubiquitous forest plants in North America. Journal of Ecology, 2022, 110, 1590-1605.	1.9	8
129	Title is missing!. Statistics and Computing, 2000, 10, 253-257.	0.8	7
130	The systematic position of the genus Rhinanthus (Scrophulariaceae) in North America. Canadian Journal of Botany, 1986, 64, 1443-1449.	1.2	6
131	Effects of nutrient availability on the production of pentaynene, a secondary compound related to defense, in Rudbeckia hirta. Plant Species Biology, 2003, 18, 85-89.	0.6	6
132	Exploring traitâ€“performance relationships of tree seedlings along experimentally manipulated light and water gradients. Ecology, 2022, 103, e3703.	1.5	6
133	The relationship between dynamic game theory and the lotka-volterra competition equations. Journal of Theoretical Biology, 1987, 125, 121-123.	0.8	5
134	Another one bites the dust: Does incisor-arcade size affect mass gain and survival in grazing ungulates?. Canadian Journal of Zoology, 2003, 81, 1623-1629.	0.4	5
135	Path models for the abscission of reproductive structures in three contrasting cultivars of faba bean (Vicia faba). Canadian Journal of Botany, 2005, 83, 264-271.	1.2	5
136	Survival, growth and element translocation by 4 plant species growing on acidogenic gold mine tailings in QuÃ©bec. Ecological Engineering, 2020, 151, 105855.	1.6	5
137	A multigroup extension to piecewise path analysis. Ecosphere, 2021, 12, e03502.	1.0	5
138	From biological hypotheses to structural equation models: the imperfection of causal translation. , 2003, , 194-211.		4
139	A Correction Note on â€œA New Inferential Test for Path Models Based on Directed Acyclic Graphsâ€• Structural Equation Modeling, 2009, 16, 537-538.	2.4	4
140	Testing Piecewise Structural Equations Models in the Presence of Latent Variables and Including Correlated Errors. Structural Equation Modeling, 2021, 28, 582-589.	2.4	4
141	Multifunctionality in practice: Measuring differences in urban woodland ecosystem properties via functional traits. Urban Forestry and Urban Greening, 2022, 68, 127453.	2.3	4
142	Functional niche occupation and species richness in herbaceous plant communities along experimental gradients of stress and disturbance. Annals of Botany, 2019, 124, 861-867.	1.4	3
143	Functional markers to predict forest ecosystem properties along a ruralâ€toâ€urban gradient. Journal of Vegetation Science, 2020, 31, 416-428.	1.1	3
144	Nitrogen Addition in a Tibetan Alpine Meadow Increases Intraspecific Variability in Nitrogen Uptake, Leading to Increased Community-level Nitrogen Uptake. Ecosystems, 2022, 25, 172-183.	1.6	3

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145	Simplifying the protocol for the quantification of generalized soil fertility gradients in grassland community ecology. Plant and Soil, 2020, 457, 457-468.	1.8	1
146	Explaining variation in productivity requires intraspecific variability in plant height among communities. Journal of Plant Ecology, 2022, 15, 310-319.	1.2	1
147	A measure of generalized soil fertility that is largely independent of species identity. Annals of Botany, 2022, 129, 29-36.	1.4	0