Karl J Niklas

List of Publications by Year
in descending order

205	12,619	46984 47	30058 103
papers	citations	h-index	g-index

211	211	211	12131
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Biomass allocation to leaves, stems and roots: metaâ€analyses of interspecific variation and environmental control. New Phytologist, 2012, 193, 30-50.	3.5	2,012
2	Global Allocation Rules for Patterns of Biomass Partitioning in Seed Plants. Science, 2002, 295, 1517-1520.	6.0	602
3	Invariant scaling relations across tree-dominated communities. Nature, 2001, 410, 655-660.	13.7	566
4	The evolution and functional significance of leaf shape in the angiosperms. Functional Plant Biology, 2011, 38, 535.	1.1	421
5	A Reevaluation of the Key Factors That Influence Tomato Fruit Softening and Integrity. Plant Physiology, 2007, 144, 1012-1028.	2.3	328
6	Patterns in vascular land plant diversification. Nature, 1983, 303, 614-616.	13.7	291
7	Plant allometry: is there a grand unifying theory?. Biological Reviews, 2004, 79, 871-889.	4.7	280
8	The aerodynamics of wind pollination. Botanical Review, The, 1985, 51, 328-386.	1.7	263
9	A mechanical perspective on foliage leaf form and function. New Phytologist, 1999, 143, 19-31.	3.5	251
10	Thermodynamic and metabolic effects on the scaling of production and population energy use. Ecology Letters, 2003, 6, 990-995.	3.0	215
11	Nitrogen/phosphorus leaf stoichiometry and the scaling of plant growth. Ecology Letters, 2005, 8, 636-642.	3.0	215
12	From The Cover: Growth and hydraulic (not mechanical) constraints govern the scaling of tree height and mass. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 15661-15663.	3.3	211
13	The modern theory of biological evolution: an expanded synthesis. Die Naturwissenschaften, 2004, 91, 255-76.	0.6	197
14	On the Vegetative Biomass Partitioning of Seed Plant Leaves, Stems, and Roots. American Naturalist, 2002, 159, 482-497.	1.0	185
15	"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
16	Darwin's second â€œabominable mysteryâ€ Why are there so many angiosperm species?. American Journal of Botany, 2009, 96, 366-381.	0.8	171
17	Evidence of a general 2/3-power law of scaling leaf nitrogen to phosphorus among major plant groups and biomes. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 877-883.	1.2	163
18	Testing the metabolic theory of ecology. Ecology Letters, 2012, 15, 1465-1474.	3.0	155

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19	Plant Allometry, Leaf Nitrogen and Phosphorus Stoichiometry, and Interspecific Trends in Annual Growth Rates. Annals of Botany, 2006, 97, 155-163.	1.4	154
20	The evolution of the land plant life cycle. New Phytologist, 2010, 185, 27-41.	3.5	153
21	The origins of multicellular organisms. Evolution & Development, 2013, 15, 41-52.	1.1	151
22	Worldwide correlations of mechanical properties and green wood density. American Journal of Botany, 2010, 97, 1587-1594.	0.8	134
23	Canonical rules for plant organ biomass partitioning and annual allocation. American Journal of Botany, 2002, 89, 812-819.	0.8	131
24	Modelling Below- and Above-ground Biomass for Non-woody and Woody Plants. Annals of Botany, 2005, 95, 315-321.	1.4	123
25	Global leaf nitrogen and phosphorus stoichiometry and their scaling exponent. National Science Review, 2018, 5, 728-739.	4.6	121
26	Does the exception prove the rule?. Nature, 2007, 445, E9-E10.	13.7	118
27	Tree size frequency distributions, plant density, age and community disturbance. Ecology Letters, 2003, 6, 405-411.	3.0	112
28	The evolutionaryâ€developmental origins of multicellularity. American Journal of Botany, 2014, 101, 6-25.	0.8	110
29	The metabolic theory of ecology: prospects and challenges for plant biology. New Phytologist, 2010, 188, 696-710.	3.5	102
30	Above- and Below-ground Biomass Relationships Across 1534 Forested Communities. Annals of Botany, 2007, 99, 95-102.	1.4	97
31	Maximum plant height and the biophysical factors that limit it. Tree Physiology, 2007, 27, 433-440.	1.4	96
32	Rethinking gene regulatory networks in light of alternative splicing, intrinsically disordered protein domains, and post-translational modifications. Frontiers in Cell and Developmental Biology, 2015, 3, 8.	1.8	96
33	A phyletic perspective on the allometry of plant biomassâ€partitioning patterns and functionally equivalent organâ€categories. New Phytologist, 2006, 171, 27-40.	3.5	94
34	The Cell Walls that Bind the Tree of Life. BioScience, 2004, 54, 831.	2.2	87
35	THE ROLE OF PHYLLOTACTIC PATTERN AS A â€œDEVELOPMENTAL CONSTRAINTâ€• ON THE INTERCEPTION OF LIGHT BY LEAF SURFACES. Evolution; International Journal of Organic Evolution, 1988, 42, 1-16.	1.1	84
36	N, P, and C stoichiometry of<i>Eranthis hyemalis</i>(Ranunculaceae) and the allometry of plant growth. American Journal of Botany, 2005, 92, 1256-1263.	0.8	84

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37	The evolution of hydrophobic cell wall biopolymers: from algae to angiosperms. Journal of Experimental Botany, 2017, 68, 5261-5269.	2.4	83
38	A morphometric analysis of the phloem-unloading pathway in developing tobacco leaves. Planta, 1988, 176, 307-318.	1.6	76
39	Biomechanics and anatomy of <i>Lycopersicon esculentum</i> fruit peels and enzymeâ€treated samples. American Journal of Botany, 2004, 91, 352-360.	0.8	75
40	COMPUTER MODELS OF EARLY LAND PLANT EVOLUTION. Annual Review of Earth and Planetary Sciences, 2004, 32, 47-66.	4.6	70
41	The role of the epidermis as a stiffening agent in Tulipa (Liliaceae) stems. American Journal of Botany, 1997, 84, 735-744.	0.8	69
42	Insights into plant size-density relationships from models and agricultural crops. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8600-8605.	3.3	67
43	The influence of gravity and wind on land plant evolution. Review of Palaeobotany and Palynology, 1998, 102, 1-14.	0.8	61
44	The evolutionary development of plant body plans. Functional Plant Biology, 2009, 36, 682.	1.1	61
45	Cell division and turgor-driven stem elongation in juvenile plants: A synthesis. Plant Science, 2013, 207, 45-56.	1.7	61
46	Biomass partitioning and leaf N,P ? stoichiometry: comparisons between tree and herbaceous current-year shoots. Plant, Cell and Environment, 2006, 29, 2030-2042.	2.8	56
47	A general review of the biomechanics of root anchorage. Journal of Experimental Botany, 2019, 70, 3439-3451.	2.4	56
48	Plant biomechanics: an overview and prospectus. American Journal of Botany, 2006, 93, 1369-1378.	0.8	52
49	The evolutionary origins of cell type diversification and the role of intrinsically disordered proteins. Journal of Experimental Botany, 2018, 69, 1437-1446.	2.4	52
50	THE ELASTIC MODULI AND MECHANICS OF POPULUS TREMULOIDES (SALICACEAE) PETIOLES IN BENDING AND TORSION. American Journal of Botany, 1991, 78, 989-996.	0.8	51
51	A Comparison between the Record Height-to-Stem Diameter Allometries of Pachycaulis and Leptocaulis Species. Annals of Botany, 2006, 97, 79-83.	1.4	50
52	Evidence for a Strong Correlation Between Transcription Factor Protein Disorder and Organismic Complexity. Genome Biology and Evolution, 2017, 9, 1248-1265.	1.1	49
53	Dynamical patterning modules in plant development and evolution. International Journal of Developmental Biology, 2012, 56, 661-674.	0.3	48
54	Computing factors of safety against windâ€induced tree stem damage. Journal of Experimental Botany, 2000, 51, 797-806.	2.4	47

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55	Dynamical Patterning Modules, Biogeneric Materials, and the Evolution of Multicellular Plants. Frontiers in Plant Science, 2018, 9, 871.	1.7	46
56	Petiole mechanics, light interception by Lamina, and â€œEconomy in Designâ€• Oecologia, 1992, 90, 518-526.	0.9	45
57	The Role of Phyllotatic Pattern as a "Developmental Constraint" On the Interception of Light by Leaf Surfaces. Evolution; International Journal of Organic Evolution, 1988, 42, 1.	1.1	43
58	Predicting the allometry of leaf surface area and dry mass. American Journal of Botany, 2009, 96, 531-536.	0.8	41
59	Nondestructive estimation of leaf area for 15 species of vines with different leaf shapes. American Journal of Botany, 2020, 107, 1481-1490.	0.8	41
60	Linking ecomechanical models and functional traits to understand phenotypic diversity. Trends in Ecology and Evolution, 2021, 36, 860-873.	4.2	41
61	A REEVALUATION OF THE ZOSTEROPHYLLOPHYTINA WITH COMMENTS ON THE ORIGIN OF LYCOPODS. American Journal of Botany, 1990, 77, 274-283.	0.8	39
62	Metabolic Scaling and the Evolutionary Dynamics of Plant Size, Form, and Diversity: Toward a Synthesis of Ecology, Evolution, and Paleontology. International Journal of Plant Sciences, 2007, 168, 729-749.	0.6	39
63	Evidence for â€œdiminishing returnsâ€•from the scaling of stem diameter and specific leaf area. American Journal of Botany, 2008, 95, 549-557.	0.8	38
64	Evolutionary plant physiology: Charles Darwinâ€™s forgotten synthesis. Die Naturwissenschaften, 2009, 96, 1339-1354.	0.6	38
65	Evolutionary trends in safety factors against wind-induced stem failure. American Journal of Botany, 2001, 88, 1266-1278.	0.8	37
66	Size-dependent species richness: trends within plant communities and across latitude. Ecology Letters, 2003, 6, 631-636.	3.0	37
67	Ontogenetic shift in the scaling of dark respiration with wholeâ€plant mass in seven shrub species. Functional Ecology, 2010, 24, 502-512.	1.7	37
68	Allometric theory and the mechanical stability of large trees: proof and conjecture. American Journal of Botany, 2006, 93, 824-828.	0.8	36
69	Identifying Morphological and Mechanical Traits Associated with Stem Lodging in Bioenergy Sorghum (Sorghum bicolor). Bioenergy Research, 2017, 10, 635-647.	2.2	35
70	The scaling of fine root nitrogen versus phosphorus in terrestrial plants: A global synthesis. Functional Ecology, 2019, 33, 2081-2094.	1.7	35
71	Lamina shape does not correlate with lamina surface area: An analysis based on the simplified Gielis equation. Global Ecology and Conservation, 2019, 19, e00666.	1.0	35
72	The scaling of the hydraulic architecture in poplar leaves. New Phytologist, 2017, 214, 145-157.	3.5	34

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73	BIOMECHANICS OF PSILOTUM NUDUM AND SOME EARLY PALEOZOIC VASCULAR SPOROPHYTES. American Journal of Botany, 1990, 77, 590-606.	0.8	33
74	FLEXURAL STIFFNESS ALLOMETRIES OF ANGIOSPERM AND FERN PETIOLES AND RACHISES: EVIDENCE FOR BIOMECHANICAL CONVERGENCE. Evolution; International Journal of Organic Evolution, 1991, 45, 734-750.	1.1	32
75	The biomechanics of <i>Pachycereus pringlei</i> root systems. American Journal of Botany, 2002, 89, 12-21.	0.8	32
76	The evoâ€devo of multinucleate cells, tissues, and organisms, and an alternative route to multicellularity. Evolution & Development, 2013, 15, 466-474.	1.1	32
77	Sensitivity of growth and biomass allocation patterns to increasing nitrogen: a comparison between ephemerals and annuals in the Gurbantunggut Desert, north-western China. Annals of Botany, 2014, 113, 501-511.	1.4	32
78	â€œDiminishing returnsâ€• in the scaling of leaf area vs. dry mass in Wuyi Mountain bamboos, Southeast China. American Journal of Botany, 2017, 104, 993-998.	0.8	32
79	Phloem networks in leaves. Current Opinion in Plant Biology, 2018, 43, 29-35.	3.5	32
80	The many roads to and from multicellularity. Journal of Experimental Botany, 2020, 71, 3247-3253.	2.4	32
81	Apparent Changes in the Diversity of Fossil Plants. , 1980, , 1-89.		32
82	Macroevolution via secondary endosymbiosis: a Neo-Goldschmidtian view of unicellular hopeful monsters and Darwinâ€™s primordial intermediate form. Theory in Biosciences, 2008, 127, 277-289.	0.6	30
83	Biophysical effects on plant competition and coexistence. Functional Ecology, 2013, 27, 854-864.	1.7	29
84	Assessing Scaling Relationships: Uses, Abuses, and Alternatives. International Journal of Plant Sciences, 2014, 175, 754-763.	0.6	29
85	Leaf shape influences the scaling of leaf dry mass vs. area: a test case using bamboos. Annals of Forest Science, 2020, 77, 1.	0.8	29
86	Size-dependent leaf area ratio in plant twigs: implication for leaf size optimization. Annals of Botany, 2010, 105, 71-77.	1.4	28
87	Effects of biotic and abiotic factors on forest biomass fractions. National Science Review, 2021, 8, nwab025.	4.6	28
88	Preferential states of longitudinal tension in the outer tissues of Taraxacum Officinale (Asteraceae) peduncles. American Journal of Botany, 1998, 85, 1068-1081.	0.8	27
89	Functional adaptation and phenotypic plasticity at the cellular and whole plant level. Journal of Biosciences, 2009, 34, 613-620.	0.5	27
90	Size-Dependent Variations in Plant Growth Rates and the "Â¾ Power Rule". American Journal of Botany, 1994, 81, 134.	0.8	27

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91	A wholeâ€plant economics spectrum including bark functional traits for 59 subtropical woody plant species. Journal of Ecology, 2022, 110, 248-261.	1.9	27
92	Modes of failure in tubular plant organs. American Journal of Botany, 2013, 100, 332-336.	0.8	26
93	Evolution of Cellular Differentiation: From Hypotheses to Models. Trends in Ecology and Evolution, 2021, 36, 49-60.	4.2	26
94	A Reevaluation of the Zosterophyllophytina with Comments on the Origin of Lycopods. American Journal of Botany, 1990, 77, 274.	0.8	26
95	Sizeâ€dependent variations in plant growth rates and the â€œÂ¾â€power ruleâ€• American Journal of Botany, 1994, 81, 134-144.	0.8	25
96	The scaling relationships of leaf biomass vs. leaf surface area of 12 bamboo species. Global Ecology and Conservation, 2019, 20, e00793.	1.0	25
97	Water content quantitatively affects metabolic rates over the course of plant ontogeny. New Phytologist, 2020, 228, 1524-1534.	3.5	25
98	The effects of domestication on the scaling of belowâ€•vs. aboveground biomass in four selected wheat (<i>Triticum</i>; Poaceae) genotypes. American Journal of Botany, 2012, 99, 1112-1117.	0.8	24
99	On the Interpretation of the Normalization Constant in the Scaling Equation. Frontiers in Ecology and Evolution, 2019, 6, .	1.1	24
100	Differences in the scaling of area and mass of <i>Ginkgo biloba</i> (Ginkgoaceae) leaves and their relevance to the study of specific leaf area. American Journal of Botany, 2011, 98, 1381-1386.	0.8	23
101	The number of cell types, information content, and the evolution of complex multicellularity. Acta Societatis Botanicorum Poloniae, 2014, 83, 337-347.	0.8	23
102	The Allometry of Saguaro Height. American Journal of Botany, 1994, 81, 1161.	0.8	23
103	The effect of twig architecture and seed number on seed size variation in subtropical woody species. New Phytologist, 2009, 183, 1212-1221.	3.5	22
104	Life history strategies drive sizeâ€dependent biomass allocation patterns of dryland ephemerals and shrubs. Ecosphere, 2019, 10, e02709.	1.0	22
105	<i>Carica papaya</i> (Caricaceae): a case study into the effects of domestication on plant vegetative growth and reproduction. American Journal of Botany, 2007, 94, 999-1002.	0.8	21
106	Biophysical and size-dependent perspectives on plant evolution. Journal of Experimental Botany, 2013, 64, 4817-4827.	2.4	21
107	Chemotaxonomy of Some Paleozoic Vascular Plants. Part I: Chemical Compositions and Preliminary Cluster Analyses. Brittonia, 1976, 28, 353.	0.8	20
108	The<i>Bio</i>â€Logic and machinery of plant morphogenesis. American Journal of Botany, 2003, 90, 515-525.	0.8	20

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109	The hydraulic architecture of Ginkgo leaves. American Journal of Botany, 2017, 104, 1285-1298.	0.8	20
110	Leaping lizards landing on leaves: escape-induced jumps in the rainforest canopy challenge the adhesive limits of geckos. Journal of the Royal Society Interface, 2017, 14, 20170156.	1.5	20
111	The evolutionary ecology (evo-eco) of plant asexual reproduction. Evolutionary Ecology, 2017, 31, 317-332.	0.5	20
112	â€œDiminishing returnsâ€•for leaves of five ageâ€groups of <i>Phyllostachys edulis</i> culms. American Journal of Botany, 2021, 108, 1662-1672.	0.8	20
113	Plant Development, Auxin, and the Subsystem Incompleteness Theorem. Frontiers in Plant Science, 2012, 3, 37.	1.7	19
114	Did meiosis evolve before sex and the evolution of eukaryotic life cycles?. BioEssays, 2014, 36, 1091-1101.	1.2	19
115	Stem Diameter (and Not Length) Limits Twig Leaf Biomass. Frontiers in Plant Science, 2019, 10, 185.	1.7	19
116	Comparison of the Scaling Relationships of Leaf Biomass versus Surface Area between Spring and Summer for Two Deciduous Tree Species. Forests, 2020, 11, 1010.	0.9	19
117	Leaf Bilateral Symmetry and the Scaling of the Perimeter vs. the Surface Area in 15 Vine Species. Forests, 2020, 11, 246.	0.9	19
118	EFFECTS OF TISSUE VOLUME AND LOCATION ON THE MECHANICAL CONSEQUENCES OF DEHYDRATION OF PETIOLES. American Journal of Botany, 1991, 78, 361-369.	0.8	18
119	Isometric scaling of above- and below-ground biomass at the individual and community levels in the understorey of a sub-tropical forest. Annals of Botany, 2015, 115, 303-313.	1.4	18
120	Plant biomechanics in the 21st century. Journal of Experimental Botany, 2019, 70, 3435-3438.	2.4	18
121	Variation in plant carbon, nitrogen and phosphorus contents across the drylands of China. Functional Ecology, 2022, 36, 174-186.	1.7	18
122	Ontogenetic changes in the numbers of shortâ€•vs. longâ€shoots account for decreasing specific leaf area in <i>Acer rubrum</i> (Aceraceae) as trees increase in size. American Journal of Botany, 2010, 97, 27-37.	0.8	17
123	Organ-specific rates of cellular respiration in developing sunflower seedlings and their bearing on metabolic scaling theory. Protoplasma, 2012, 249, 1049-1057.	1.0	17
124	A Superellipse with Deformation and Its Application in Describing the Cross-Sectional Shapes of a Square Bamboo. Symmetry, 2020, 12, 2073.	1.1	17
125	Scaling relationships of leaf vein and areole traits versus leaf size for nine Magnoliaceae species differing in venation density. American Journal of Botany, 2022, 109, 899-909.	0.8	16
126	Voigt and Reuss Models for Predicting Changes in Young's Modulus of Dehydrating Plant Organs. Annals of Botany, 1992, 70, 347-355.	1.4	15

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127	On the mechanical properties of the rare endemic cactus <i>Stenocereus eruca</i> and the related species <i>S. gummosus</i>. American Journal of Botany, 2003, 90, 663-674.	0.8	15
128	A theoretical framework for whole-plant carbon assimilation efficiency based on metabolic scaling theory: a test case using Picea seedlings. Tree Physiology, 2015, 35, 599-607.	1.4	15
129	Kleiber's Law: How the <i>Fire of Life</i> ignited debate, fueled theory, and neglected plants as model organisms. Plant Signaling and Behavior, 2015, 10, e1036216.	1.2	15
130	The Elastic Moduli and Mechanics of Populus tremuloides (Salicaceae) Petioles in Bending and Torsion. American Journal of Botany, 1991, 78, 989.	0.8	15
131	Comparisons Among Biomass Allocation and Spatial Distribution Patterns of Some Vine, Pteridophyte, and Gymnosperm Shoots. American Journal of Botany, 1994, 81, 1416.	0.8	15
132	Emergent properties of plants competing in silico for space and light: Seeing the tree from the forest. American Journal of Botany, 2009, 96, 1430-1444.	0.8	14
133	Mechanical properties of wood disproportionately increase with increasing density. American Journal of Botany, 2012, 99, 169-170.	0.8	14
134	A Phyletic Perspective on Cell Growth. Cold Spring Harbor Perspectives in Biology, 2015, 7, a019158.	2.3	14
135	Global Data Analysis Shows That Soil Nutrient Levels Dominate Foliar Nutrient Resorption Efficiency in Herbaceous Species. Frontiers in Plant Science, 2018, 9, 1431.	1.7	14
136	Julius Sachs (1868): The father of plant physiology. American Journal of Botany, 2018, 105, 656-666.	0.8	14
137	Polarity, planes of cell division, and the evolution of plant multicellularity. Protoplasma, 2019, 256, 585-599.	1.0	14
138	The Leaf Economics Spectrum Constrains Phenotypic Plasticity Across a Light Gradient. Frontiers in Plant Science, 2020, 11, 735.	1.7	14
139	Diminishing returns among lamina fresh and dry mass, surface area, and petiole fresh mass among nine Lauraceae species. American Journal of Botany, 2022, 109, 377-392.	0.8	14
140	Aerodynamics of Ephedra trifurca. Journal of Mathematical Biology, 1986, 24, 1-24.	0.8	13
141	Reexamination of a canonical model for plant organ biomass partitioning. American Journal of Botany, 2003, 90, 250-254.	0.8	13
142	Important foliar traits depend on species-grouping: analysis of a remnant temperate forest at the Keerqin Sandy Lands, China. Plant and Soil, 2011, 340, 337-345.	1.8	13
143	Patterns of diversity in leaves from canopies of <i>Ginkgo biloba</i> are revealed using Specific Leaf Area as a morphological character. American Journal of Botany, 2011, 98, 1068-1076.	0.8	13
144	Leaf traits and relationships differ with season as well as among species groupings in a managed Southeastern China forest landscape. Plant Ecology, 2012, 213, 1489-1502.	0.7	13

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145	Amphimixis and the individual in evolving populations: does Weismannâ€™s Doctrine apply to all, most or a few organisms?. Die Naturwissenschaften, 2014, 101, 357-372.	0.6	13
146	Ecosystem organic carbon storage and their drivers across the drylands of China. Catena, 2022, 214, 106280.	2.2	13
147	Comparisons among biomass allocation and spatial distribution patterns of some vine, pteridophyte, and gymnosperm shoots. American Journal of Botany, 1994, 81, 1416-1421.	0.8	12
148	COMPUTER SIMULATIONS OF PLANT BIODIVERSITY IN STABLE AND UNSTABLE ENVIRONMENTS: A TEST OF THE NEUTRAL BIODIVERSITY THEORY. Journal of Biological Systems, 2011, 19, 1-17.	0.5	12
149	Influence of Leaf Age on the Scaling Relationships of Lamina Mass vs. Area. Frontiers in Plant Science, 2022, 13, 860206.	1.7	12
150	Interspecific differences in wholeâ€plant respiration vs. biomass scaling relationships: A case study using evergreen conifer and angiosperm tree seedlings. American Journal of Botany, 2014, 101, 617-623.	0.8	11
151	Boron and the evolutionary development of roots. Plant Signaling and Behavior, 2017, 12, e1320631.	1.2	11
152	The Evolution of Early Vascular Plant Complexity. International Journal of Plant Sciences, 2019, 180, 800-810.	0.6	11
153	Evolutionary walks through a land plant morphospace. , 0, .		11
154	AERODYNAMICS OF EPHEDRA TRIFURCA: I. POLLEN GRAIN VELOCITY FIELDS AROUND STEMS BEARING OVULES. , 1986, 73, 966.		11
155	Biomechanics of Psilotum nudum and Some Early Paleozoic Vascular Sporophytes. American Journal of Botany, 1990, 77, 590.	0.8	11
156	Comparison of a universal (but complex) model for avian egg shape with a simpler model. Annals of the New York Academy of Sciences, 2022, 1514, 34-42.	1.8	11
157	The Aerodynamics of Pollen Capture in Two Sympatric Ephedra Species. Evolution; International Journal of Organic Evolution, 1987, 41, 104.	1.1	10
158	On the Allometry of Biomass Partitioning and Light Harvesting for Plants with Leafless Stems. Journal of Theoretical Biology, 2002, 217, 47-52.	0.8	10
159	Climbing Plants: Attachment and the Ascent for Light. Current Biology, 2011, 21, R199-R201.	1.8	10
160	A Biophysical Perspective on the Pollination Biology of Ephedra nevadensis and E. trifurca. Botanical Review, The, 2015, 81, 28-41.	1.7	10
161	Haeckel's Biogenetic Law and the Land Plant Phylotypic Stage. BioScience, 2016, 66, 510-519.	2.2	10
162	A predictive nondestructive model for the covariation of tree height, diameter and stem volume scaling relationships. Scientific Reports, 2016, 6, 31008.	1.6	10

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163	Allocation Strategies for Seed Nitrogen and Phosphorus in an Alpine Meadow Along an Altitudinal Gradient on the Tibetan Plateau. Frontiers in Plant Science, 2020, 11, 614644.	1.7	9
164	Morphological (and not anatomical or reproductive) features define early vascular plant phylogenetic relationships. American Journal of Botany, 2020, 107, 477-488.	0.8	9
165	Physiological and Morphological Modifications of Plantago major (Plantaginaceae) in Response to Light Conditions. American Journal of Botany, 1989, 76, 370.	0.8	9
166	Embryo morphology and seedling evolution. , 2008, , 103-129.		8
167	Spatiotemporal distribution of essential elements through<i>Populus</i>leaf ontogeny. Journal of Experimental Botany, 2016, 67, 2777-2786.	2.4	8
168	Stem and leaf growth rates define the leaf size vs. number trade-off. AoB PLANTS, 2019, 11, plz063.	1.2	8
169	Global synthesis for the scaling of soil microbial nitrogen to phosphorus in terrestrial ecosystems. Environmental Research Letters, 2021, 16, 044034.	2.2	8
170	Modeling fossil plant form-function relationships: a critique. Paleobiology, 2000, 26, 289-304.	1.3	7
171	Carbon/nitrogen/phosphorus allometric relations across species. Plant Ecophysiology, 2008, , 9-30.	1.5	7
172	Metabolic scaling theory in plant biology and the three oxygen paradoxa of aerobic life. Theory in Biosciences, 2013, 132, 277-288.	0.6	7
173	Tree Biomechanics with Special Reference to Tropical Trees. Tree Physiology, 2016, , 413-435.	0.9	7
174	A General Model for Describing the Ovate Leaf Shape. Symmetry, 2021, 13, 1524.	1.1	7
175	Taxing Debate for Taxonomists. Science, 2001, 292, 2249b-2250.	6.0	7
176	Tree Size Influences Leaf Shape but Does Not Affect the Proportional Relationship Between Leaf Area and the Product of Length and Width. Frontiers in Plant Science, 0, 13, .	1.7	7
177	AN ASSESSMENT OF CHEMICAL FEATURES FOR THE CLASSIFICATION OF PLANT FOSSILS. Taxon, 1979, 28, 505-516.	0.4	6
178	Computer simulations support a core prediction of a contentious plant model. American Journal of Botany, 2012, 99, 508-516.	0.8	6
179	Size-dependent variation in plant form. Current Biology, 2017, 27, R900-R905.	1.8	6
180	From Goetheâ€™s plant archetype via Haeckelâ€™s biogenetic law to plant evo-devo 2016. Theory in Biosciences, 2017, 136, 49-57.	0.6	6

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