Pei-Jian Shi

List of Publications by Year
in descending order

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Version: 2024-02-01

94 papers	1,995 citations	236612 25 h-index	360668 35 g-index
97 all docs	97 docs citations	97 times ranked	1200 citing authors

#	Article	IF	Citations
1	Leaf Fresh Weight Versus Dry Weight: Which is Better for Describing the Scaling Relationship between Leaf Biomass and Leaf Area for Broad-Leaved Plants?. Forests, 2019, 10, 256.	0.9	82
2	A comparison of different thermal performance functions describing temperature-dependent development rates. Journal of Thermal Biology, 2010, 35, 225-231.	1.1	76
3	A simple model for describing the effect of temperature on insect developmental rate. Journal of Asia-Pacific Entomology, 2011, 14, 15-20.	0.4	71
4	Exploring key cellular processes and candidate genes regulating the primary thickening growth of <scp>M</scp>oso underground shoots. New Phytologist, 2017, 214, 81-96.	3.5	66
5	A General Leaf Area Geometric Formula Exists for Plantsâ€"Evidence from the Simplified Gielis Equation. Forests, 2018, 9, 714.	0.9	63
6	Comparison of Thermal Performance Equations in Describing Temperature-Dependent Developmental Rates of Insects: (I) Empirical Models. Annals of the Entomological Society of America, 2016, 109, 211-215.	1.3	53
7	A Modified Program for Estimating the Parameters of the SSI Model. Environmental Entomology, 2011, 40, 462-469.	0.7	52
8	Applications of the Bootstrap to Insect Physiology. Florida Entomologist, 2011, 94, 1036-1041.	0.2	48
9	Comparison of dwarf bamboos (Indocalamus sp.) leaf parameters to determine relationship between spatial density of plants and total leaf area per plant. Ecology and Evolution, 2015, 5, 4578-4589.	0.8	47
10	Leaf areaâ€"length allometry and its implications in leaf shape evolution. Trees - Structure and Function, 2019, 33, 1073-1085.	0.9	43
11	Leaf size estimation based on leaf length, width and shape. Annals of Botany, 2021, 128, 395-406.	1.4	42
12	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
13	Capturing spiral radial growth of conifers using the superellipse to model tree-ring geometric shape. Frontiers in Plant Science, 2015, 6, 856.	1.7	39
14	Confidence interval of intrinsic optimum temperature estimated using thermodynamic SSI model. Insect Science, 2013, 20, 420-428.	1.5	35
15	A geometrical model for testing bilateral symmetry of bamboo leaf with a simplified Gielis equation. Ecology and Evolution, 2016, 6, 6798-6806.	0.8	35
16	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
17	Timing of cherry tree blooming: Contrasting effects of rising winter low temperatures and early spring temperatures. Agricultural and Forest Meteorology, 2017, 240-241, 78-89.	1.9	34
18	A New Flexible Sigmoidal Growth Model. Symmetry, 2019, 11, 204.	1.1	34

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19	Solving the pitfalls of pitfall trapping: a twoâ€•circle method for density estimation of groundâ€•dwelling arthropods. Methods in Ecology and Evolution, 2013, 4, 865-871.	2.2	33
20	Proportional Relationship between Leaf Area and the Product of Leaf Length and Width of Four Types of Special Leaf Shapes. Forests, 2019, 10, 178.	0.9	33
21	Precipitation is the most crucial factor determining the distribution of moso bamboo in Mainland China. Global Ecology and Conservation, 2020, 22, e00924.	1.0	32
22	Capture the time when plants reach their maximum body size by using the beta sigmoid growth equation. Ecological Modelling, 2016, 320, 177-181.	1.2	31
23	Comparison of Thermal Performance Equations in Describing Temperature-Dependent Developmental Rates of Insects: (II) Two Thermodynamic Models. Annals of the Entomological Society of America, 2017, 110, 113-120.	1.3	31
24	Weakening density dependence from climate change and agricultural intensification triggers pest outbreaks: a 37â€•year observation of cotton bollworms. Ecology and Evolution, 2014, 4, 3362-3374.	0.8	30
25	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
26	The â€œgeneralâ€•ontogenetic growth model is inapplicable to crop growth. Ecological Modelling, 2013, 266, 1-9.	1.2	26
27	Effect of Temperature on the Development of <I>Laodelphax striatellus</I> (Homoptera:) Tj ETQq1 1 0.784314 rgBT /Overl	0.8	26
28	The scaling relationships of leaf biomass vs. leaf surface area of 12 bamboo species. Global Ecology and Conservation, 2019, 20, e00793.	1.0	25
29	Does the sizeâ€“density relationship developed for bamboo species conform to the self-thinning rule?. Forest Ecology and Management, 2016, 361, 339-345.	1.4	24
30	On the 3/4-exponent von Bertalanffy equation for ontogenetic growth. Ecological Modelling, 2014, 276, 23-28.	1.2	23
31	Why Does Not the Leaf Weight-Area Allometry of Bamboos Follow the 3/2-Power Law?. Frontiers in Plant Science, 2018, 9, 583.	1.7	23
32	Influence of temperature on the northern distribution limits of Scirpophaga incertulas Walker (Lepidoptera: Pyralidae) in China. Journal of Thermal Biology, 2012, 37, 130-137.	1.1	22
33	Does the law of diminishing returns in leaf scaling apply to vines? â€“ Evidence from 12 species of climbing plants. Global Ecology and Conservation, 2020, 21, e00830.	1.0	22
34	Dispersal distance determines the exponent of the spatial Taylorâ€™s power law. Ecological Modelling, 2016, 335, 48-53.	1.2	21
35	Scaling Relationships between Leaf Shape and Area of 12 Rosaceae Species. Symmetry, 2019, 11, 1255.	1.1	21
36	A Simple Method for Measuring the Bilateral Symmetry of Leaves. Symmetry, 2018, 10, 118.	1.1	20

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37	A general formula for calculating surface area of the similarly shaped leaves: Evidence from six Magnoliaceae species. Global Ecology and Conservation, 2020, 23, e01129.	1.0	20
38	â€œDiminishing returnsâ€•for leaves of five ageâ€groups of Phyllostachys edulis culms. American Journal of Botany, 2021, 108, 1662-1672.	0.8	20
39	Intrinsic Optimum Temperature of the Diamondback Moth and Its Ecological Meaning. Environmental Entomology, 2012, 41, 714-722.	0.7	19
40	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
41	Leaf Bilateral Symmetry and the Scaling of the Perimeter vs. the Surface Area in 15 Vine Species. Forests, 2020, 11, 246.	0.9	19
42	The effect of temperature on the developmental rates of seedling emergence and leaf-unfolding in two dwarf bamboo species. Trees - Structure and Function, 2018, 32, 751-763.	0.9	18
43	Increase in Absolute Leaf Water Content Tends to Keep Pace with That of Leaf Dry Massâ€”Evidence from Bamboo Plants. Symmetry, 2020, 12, 1345.	1.1	18
44	How to Compare the Lower Developmental Thresholds. Environmental Entomology, 2010, 39, 2033-2038.	0.7	17
45	Could the intrinsic rate of increase represent the fitness in terrestrial ectotherms?. Journal of Thermal Biology, 2013, 38, 148-151.	1.1	17
46	Comparison of five methods for parameter estimation under Taylorâ€™s power law. Ecological Complexity, 2017, 32, 121-130.	1.4	17
47	Taylorâ€™s Power Law for Leaf Bilateral Symmetry. Forests, 2018, 9, 500.	0.9	17
48	A Superellipse with Deformation and Its Application in Describing the Cross-Sectional Shapes of a Square Bamboo. Symmetry, 2020, 12, 2073.	1.1	17
49	The Generalized Gielis Geometric Equation and Its Application. Symmetry, 2020, 12, 645.	1.1	17
50	Cascade effects of crop species richness on the diversity of pest insects and their natural enemies. Science China Life Sciences, 2014, 57, 718-725.	2.3	16
51	Comparison of two ontogenetic growth equations for animals and plants. Ecological Modelling, 2017, 349, 1-10.	1.2	16
52	Influence of leaf shape on the scaling of leaf surface area and length in bamboo plants. Trees - Structure and Function, 2021, 35, 709-715.	0.9	16
53	Plant Age Has a Minor Effect on Non-Destructive Leaf Area Calculations in Moso Bamboo (Phyllostachys edulis). Symmetry, 2021, 13, 369.	1.1	16
54	Can Leaf Shape be Represented by the Ratio of Leaf Width to Length? Evidence from Nine Species of Magnolia and Michelia (Magnoliaceae). Forests, 2021, 12, 41.	0.9	16

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55	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
56	Comparison of seed morphology of two ginkgo cultivars. Journal of Forestry Research, 2020, 31, 751-758.	1.7	15
57	Testing the rate isomorphy hypothesis using five statistical methods. Insect Science, 2012, 19, 121-128.	1.5	14
58	The seesaw effect of winter temperature change on the recruitment of cotton bollworms H elicoverpa armigera through mismatched phenology. Ecology and Evolution, 2015, 5, 5652-5661.	0.8	14
59	Early eclosion of overwintering cotton bollworm moths from warming temperatures accentuates yield loss in wheat. Agriculture, Ecosystems and Environment, 2016, 217, 89-98.	2.5	14
60	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
61	Population decrease of Scirpophaga incertulas Walker (Lepidoptera Pyralidae) under climate warming. Ecology and Evolution, 2012, 2, 58-64.	0.8	13
62	Seed handling by primary frugivores differentially influence postâ€dispersal seed removal of Chinese yew by groundâ€dwelling animals. Integrative Zoology, 2016, 11, 191-198.	1.3	13
63	Comparison of Thermal Performance Equations in Describing Temperature-Dependent Developmental Rates of Insects: (III) Phenological Applications. Annals of the Entomological Society of America, 2017, 110, 558-564.	1.3	13
64	Effects of Salt Stress on the Leaf Shape and Scaling of Pyrus betulifolia Bunge. Symmetry, 2019, 11, 991.	1.1	13
65	An optimal proportion of mixing broadâ€leaved forest for enhancing the effective productivity of moso bamboo. Ecology and Evolution, 2015, 5, 1576-1584.	0.8	12
66	Influence of Leaf Age on the Scaling Relationships of Lamina Mass vs. Area. Frontiers in Plant Science, 2022, 13, 860206.	1.7	12
67	Internode morphometrics and allometry of Tonkin Cane Pseudosasa amabilis. Ecology and Evolution, 2017, 7, 9651-9660.	0.8	11
68	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
69	Common-intersection hypothesis of development rate lines of ectotherms within a taxon revisited. Journal of Thermal Biology, 2011, 36, 422-429.	1.1	10
70	Spatial distribution characteristics of stomata at the areole level in Michelia cavalerieiv var. platypetala (Magnoliaceae). Annals of Botany, 2021, 128, 875-886.	1.4	10
71	Simulation of crop growth, time to maturity and yield by an improved sigmoidal model. Scientific Reports, 2018, 8, 7030.	1.6	9
72	Ellipticalness index â€“ a simple measure of the complexity of oval leaf shape. Pakistan Journal of Botany, 2022, 54, .	0.2	9

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73	A General Model for Describing the Ovate Leaf Shape. Symmetry, 2021, 13, 1524.	1.1	7
74	Application of an Ovate Leaf Shape Model to Evaluate Leaf Bilateral Asymmetry and Calculate Lamina Centroid Location. Frontiers in Plant Science, 2021, 12, 822907.	1.7	7
75	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
76	Influence of the physical dimension of leaf size measures on the goodness of fit for Taylor's power law using 101 bamboo taxa. Global Ecology and Conservation, 2019, 19, e00657.	1.0	6
77	Comparison of the intrinsic optimum temperatures for seed germination between two bamboo species based on a thermodynamic model. Global Ecology and Conservation, 2019, 17, e00568.	1.0	6
78	An elliptical blade is not a true ellipse, but a superellipseâ€“Evidence from two Michelia species. Journal of Forestry Research, 2022, 33, 1341-1348.	1.7	6
79	Evidence That Supertriangles Exist in Nature from the Vertical Projections of Koelreuteria paniculata Fruit. Symmetry, 2022, 14, 23.	1.1	6
80	Spatial Segregation Facilitates the Coexistence of Tree Species in Temperate Forests. Forests, 2018, 9, 768.	0.9	5
81	Variation in individual biomass decreases faster than mean biomass with increasing density of bamboo stands. Journal of Forestry Research, 2020, 31, 981-987.	1.7	5
82	Mean-variance relationships of leaf bilateral asymmetry for 35 species of plants and their implications. Global Ecology and Conservation, 2020, 23, e01152.	1.0	5
83	A Note on Spirals and Curvature. Growth and Form, 2020, 1, 1.	0.2	5
84	Taylor's power law in the Wenchuan earthquake sequence with fluctuation scaling. Natural Hazards and Earth System Sciences, 2019, 19, 1119-1127.	1.5	4
85	Influence of air temperature on the first flowering date of Prunus yedoensis Matsum. Ecology and Evolution, 2014, 4, 292-299.	0.8	3
86	Nonparametric Estimation of Interspecific Spatio-Temporal Niche Separation Between Two Lady Beetles (Coleoptera: Coccinellidae) inBtCotton Fields. Annals of the Entomological Society of America, 2015, 108, 807-813.	1.3	3
87	A nondestructive method of calculating the wing area of insects. Ecology and Evolution, 2022, 12, e8792.	0.8	3
88	The Modified BriÃ¨re Equation and Its Applications. Plants, 2022, 11, 1769.	1.6	3
89	An Optimization Approach to the Two-Circle Method of Estimating Ground-Dwelling Arthropod Densities. Florida Entomologist, 2014, 97, 644-652.	0.2	2
90	A general method for parameter estimation in light-response models. Scientific Reports, 2016, 6, 27905.	1.6	2

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91	A Commensal Consumer-Induced Mediation Effects on Resourceâ€“Consumer Interactions. Proceedings of the National Academy of Sciences India Section B - Biological Sciences, 2013, 83, 385-404.	0.4	1
92	Capturing the interaction types of two Bt toxins Cry1Ac and Cry2Ab on suppressing the cotton bollworm by using multiâ€exponential equations. Insect Science, 2016, 23, 649-654.	1.5	1
93	Investigating the Shape of the Shoot Apical Meristem in Bamboo Using a Superellipse Equation. Bio-protocol, 2017, 7, e2644.	0.2	1
94	Peer review report 2 on â€œDrought explains variation in the radial growth of white spruce in western Canadaâ€• Agricultural and Forest Meteorology, 2016, 217, 536.	1.9	0