

# Pei-Jian Shi

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92  
papers

1,278  
citations

20  
h-index

28  
g-index

97  
ext. papers

1,637  
ext. citations

3.1  
avg, IF

4.99  
L-index

#	Paper	IF	Citations
92	Diminishing returns among lamina fresh and dry mass, surface area, and petiole fresh mass among nine Lauraceae species.. <i>American Journal of Botany</i> , <b>2022</b> ,	2.7	1
91	A nondestructive method of calculating the wing area of insects.. <i>Ecology and Evolution</i> , <b>2022</b> , 12, e87922.	2.8	0
90	Influence of Leaf Age on the Scaling Relationships of Lamina Mass vs. Area.. <i>Frontiers in Plant Science</i> , <b>2022</b> , 13, 860206	6.2	0
89	Evidence That Supertriangles Exist in Nature from the Vertical Projections of <i>Koelreuteria paniculata</i> Fruit. <i>Symmetry</i> , <b>2022</b> , 14, 23	2.7	1
88	Scaling relationships of leaf vein and areole traits versus leaf size for nine Magnoliaceae species differing in venation density.. <i>American Journal of Botany</i> , <b>2022</b> ,	2.7	2
87	Ellipticalness index: a simple measure of the complexity of oval leaf shape. <i>Pakistan Journal of Botany</i> , <b>2022</b> , 54,	2	2
86	Application of an Ovate Leaf Shape Model to Evaluate Leaf Bilateral Asymmetry and Calculate Lamina Centroid Location.. <i>Frontiers in Plant Science</i> , <b>2021</b> , 12, 822907	6.2	0
85	Can Leaf Shape be Represented by the Ratio of Leaf Width to Length? Evidence from Nine Species of <i>Magnolia</i> and <i>Michelia</i> (Magnoliaceae). <i>Forests</i> , <b>2021</b> , 12, 41	2.8	5
84	Leaf size estimation based on leaf length, width and shape. <i>Annals of Botany</i> , <b>2021</b> , 128, 395-406	4.1	9
83	Influence of leaf shape on the scaling of leaf surface area and length in bamboo plants. <i>Trees - Structure and Function</i> , <b>2021</b> , 35, 709-715	2.6	8
82	Plant Age Has a Minor Effect on Non-Destructive Leaf Area Calculations in Moso Bamboo ( <i>Phyllostachys edulis</i> ). <i>Symmetry</i> , <b>2021</b> , 13, 369	2.7	7
81	Spatial distribution characteristics of stomata at the areole level in <i>Michelia cavaleriei</i> var. <i>platyptala</i> (Magnoliaceae). <i>Annals of Botany</i> , <b>2021</b> , 128, 875-886	4.1	2
80	A General Model for Describing the Ovate Leaf Shape. <i>Symmetry</i> , <b>2021</b> , 13, 1524	2.7	2
79	"Diminishing returns" for leaves of five age-groups of <i>Phyllostachys edulis</i> culms. <i>American Journal of Botany</i> , <b>2021</b> , 108, 1662-1672	2.7	4
78	A Superellipse with Deformation and Its Application in Describing the Cross-Sectional Shapes of a Square Bamboo. <i>Symmetry</i> , <b>2020</b> , 12, 2073	2.7	8
77	A general formula for calculating surface area of the similarly shaped leaves: Evidence from six Magnoliaceae species. <i>Global Ecology and Conservation</i> , <b>2020</b> , 23, e01129	2.8	11
76	Precipitation is the most crucial factor determining the distribution of moso bamboo in Mainland China. <i>Global Ecology and Conservation</i> , <b>2020</b> , 22, e00924	2.8	15

75	Leaf Bilateral Symmetry and the Scaling of the Perimeter vs. the Surface Area in 15 Vine Species. <i>Forests</i> , <b>2020</b> , 11, 246	2.8	13
74	The Generalized Gielis Geometric Equation and Its Application. <i>Symmetry</i> , <b>2020</b> , 12, 645	2.7	10
73	Leaf shape influences the scaling of leaf dry mass vs. area: a test case using bamboos. <i>Annals of Forest Science</i> , <b>2020</b> , 77, 1	3.1	21
72	A Note on Spirals and Curvature <b>2020</b> , 1, 1		5
71	Does the law of diminishing returns in leaf scaling apply to vines? Evidence from 12 species of climbing plants. <i>Global Ecology and Conservation</i> , <b>2020</b> , 21, e00830	2.8	13
70	Comparison of the Scaling Relationships of Leaf Biomass versus Surface Area between Spring and Summer for Two Deciduous Tree Species. <i>Forests</i> , <b>2020</b> , 11, 1010	2.8	14
69	Nondestructive estimation of leaf area for 15 species of vines with different leaf shapes. <i>American Journal of Botany</i> , <b>2020</b> , 107, 1481-1490	2.7	21
68	Mean-variance relationships of leaf bilateral asymmetry for 35 species of plants and their implications. <i>Global Ecology and Conservation</i> , <b>2020</b> , 23, e01152	2.8	5
67	Increase in Absolute Leaf Water Content Tends to Keep Pace with That of Leaf Dry Mass Evidence from Bamboo Plants. <i>Symmetry</i> , <b>2020</b> , 12, 1345	2.7	10
66	Variation in individual biomass decreases faster than mean biomass with increasing density of bamboo stands. <i>Journal of Forestry Research</i> , <b>2020</b> , 31, 981-987	2	1
65	Comparison of seed morphology of two ginkgo cultivars. <i>Journal of Forestry Research</i> , <b>2020</b> , 31, 751-758		8
64	Effects of Salt Stress on the Leaf Shape and Scaling of <i>Pyrus betulifolia</i> Bunge. <i>Symmetry</i> , <b>2019</b> , 11, 991	2.7	7
63	The scaling relationships of leaf biomass vs. leaf surface area of 12 bamboo species. <i>Global Ecology and Conservation</i> , <b>2019</b> , 20, e00793	2.8	17
62	Lamina shape does not correlate with lamina surface area: An analysis based on the simplified Gielis equation. <i>Global Ecology and Conservation</i> , <b>2019</b> , 19, e00666	2.8	21
61	Influence of the physical dimension of leaf size measures on the goodness of fit for Taylor's power law using 101 bamboo taxa. <i>Global Ecology and Conservation</i> , <b>2019</b> , 19, e00657	2.8	3
60	Leaf area-length allometry and its implications in leaf shape evolution. <i>Trees - Structure and Function</i> , <b>2019</b> , 33, 1073-1085	2.6	29
59	Leaf Fresh Weight Versus Dry Weight: Which is Better for Describing the Scaling Relationship between Leaf Biomass and Leaf Area for Broad-Leaved Plants?. <i>Forests</i> , <b>2019</b> , 10, 256	2.8	46
58	Proportional Relationship between Leaf Area and the Product of Leaf Length and Width of Four Types of Special Leaf Shapes. <i>Forests</i> , <b>2019</b> , 10, 178	2.8	25

57	Taylor's power law in the Wenchuan earthquake sequence with fluctuation scaling. <i>Natural Hazards and Earth System Sciences</i> , <b>2019</b> , 19, 1119-1127	3.9	4
56	Scaling Relationships between Leaf Shape and Area of 12 Rosaceae Species. <i>Symmetry</i> , <b>2019</b> , 11, 1255	2.7	17
55	Comparison of the intrinsic optimum temperatures for seed germination between two bamboo species based on a thermodynamic model. <i>Global Ecology and Conservation</i> , <b>2019</b> , 17, e00568	2.8	4
54	A New Flexible Sigmoidal Growth Model. <i>Symmetry</i> , <b>2019</b> , 11, 204	2.7	12
53	The effect of temperature on the developmental rates of seedling emergence and leaf-unfolding in two dwarf bamboo species. <i>Trees - Structure and Function</i> , <b>2018</b> , 32, 751-763	2.6	12
52	Simulation of crop growth, time to maturity and yield by an improved sigmoidal model. <i>Scientific Reports</i> , <b>2018</b> , 8, 7030	4.9	3
51	Why Does Not the Leaf Weight-Area Allometry of Bamboos Follow the 3/2-Power Law?. <i>Frontiers in Plant Science</i> , <b>2018</b> , 9, 583	6.2	20
50	Spatial Segregation Facilitates the Coexistence of Tree Species in Temperate Forests. <i>Forests</i> , <b>2018</b> , 9, 768	2.8	2
49	A General Leaf Area Geometric Formula Exists for Plants Evidence from the Simplified Gielis Equation. <i>Forests</i> , <b>2018</b> , 9, 714	2.8	37
48	Taylor's Power Law for Leaf Bilateral Symmetry. <i>Forests</i> , <b>2018</b> , 9, 500	2.8	14
47	A Simple Method for Measuring the Bilateral Symmetry of Leaves. <i>Symmetry</i> , <b>2018</b> , 10, 118	2.7	18
46	Comparison of two ontogenetic growth equations for animals and plants. <i>Ecological Modelling</i> , <b>2017</b> , 349, 1-10	3	11
45	Timing of cherry tree blooming: Contrasting effects of rising winter low temperatures and early spring temperatures. <i>Agricultural and Forest Meteorology</i> , <b>2017</b> , 240-241, 78-89	5.8	22
44	Comparison of Thermal Performance Equations in Describing Temperature-Dependent Developmental Rates of Insects: (III) Phenological Applications. <i>Annals of the Entomological Society of America</i> , <b>2017</b> , 110, 558-564	2	9
43	Comparison of five methods for parameter estimation under Taylor's power law. <i>Ecological Complexity</i> , <b>2017</b> , 32, 121-130	2.6	14
42	Exploring key cellular processes and candidate genes regulating the primary thickening growth of Moso underground shoots. <i>New Phytologist</i> , <b>2017</b> , 214, 81-96	9.8	45
41	Comparison of Thermal Performance Equations in Describing Temperature-Dependent Developmental Rates of Insects: (II) Two Thermodynamic Models. <i>Annals of the Entomological Society of America</i> , <b>2017</b> , 110, 113-120	2	19
40	Internode morphometrics and allometry of Tonkin Cane. <i>Ecology and Evolution</i> , <b>2017</b> , 7, 9651-9660	2.8	9

39	Investigating the Shape of the Shoot Apical Meristem in Bamboo Using a Superellipse Equation. <i>Bio-protocol</i> , <b>2017</b> , 7, e2644	0.9	0
38	A general method for parameter estimation in light-response models. <i>Scientific Reports</i> , <b>2016</b> , 6, 27905	4.9	2
37	Does the size-density relationship developed for bamboo species conform to the self-thinning rule?. <i>Forest Ecology and Management</i> , <b>2016</b> , 361, 339-345	3.9	15
36	Comparison of Thermal Performance Equations in Describing Temperature-Dependent Developmental Rates of Insects: (I) Empirical Models. <i>Annals of the Entomological Society of America</i> , <b>2016</b> , 109, 211-215	2	36
35	Early eclosion of overwintering cotton bollworm moths from warming temperatures accentuates yield loss in wheat. <i>Agriculture, Ecosystems and Environment</i> , <b>2016</b> , 217, 89-98	5.7	11
34	Capture the time when plants reach their maximum body size by using the beta sigmoid growth equation. <i>Ecological Modelling</i> , <b>2016</b> , 320, 177-181	3	22
33	Capturing the interaction types of two Bt toxins Cry1Ac and Cry2Ab on suppressing the cotton bollworm by using multi-exponential equations. <i>Insect Science</i> , <b>2016</b> , 23, 649-54	3.6	1
32	Seed handling by primary frugivores differentially influence post-dispersal seed removal of Chinese yew by ground-dwelling animals. <i>Integrative Zoology</i> , <b>2016</b> , 11, 191-8	1.9	9
31	Peer review report 2 on Drought explains variation in the radial growth of white spruce in western Canada. <i>Agricultural and Forest Meteorology</i> , <b>2016</b> , 217, 536	5.8	
30	A geometrical model for testing bilateral symmetry of bamboo leaf with a simplified Gielis equation. <i>Ecology and Evolution</i> , <b>2016</b> , 6, 6798-6806	2.8	26
29	Dispersal distance determines the exponent of the spatial Taylor's power law. <i>Ecological Modelling</i> , <b>2016</b> , 335, 48-53	3	19
28	Nonparametric Estimation of Interspecific Spatio-Temporal Niche Separation Between Two Lady Beetles (Coleoptera: Coccinellidae) in Bt Cotton Fields. <i>Annals of the Entomological Society of America</i> , <b>2015</b> , 108, 807-813	2	3
27	The seesaw effect of winter temperature change on the recruitment of cotton bollworms <i>Helicoverpa armigera</i> through mismatched phenology. <i>Ecology and Evolution</i> , <b>2015</b> , 5, 5652-61	2.8	10
26	Comparison of dwarf bamboos ( <i>Indocalamus</i> sp.) leaf parameters to determine relationship between spatial density of plants and total leaf area per plant. <i>Ecology and Evolution</i> , <b>2015</b> , 5, 4578-89	2.8	35
25	An optimal proportion of mixing broad-leaved forest for enhancing the effective productivity of moso bamboo. <i>Ecology and Evolution</i> , <b>2015</b> , 5, 1576-84	2.8	6
24	Capturing spiral radial growth of conifers using the superellipse to model tree-ring geometric shape. <i>Frontiers in Plant Science</i> , <b>2015</b> , 6, 856	6.2	33
23	Weakening density dependence from climate change and agricultural intensification triggers pest outbreaks: a 37-year observation of cotton bollworms. <i>Ecology and Evolution</i> , <b>2014</b> , 4, 3362-74	2.8	25
22	An Optimization Approach to the Two-Circle Method of Estimating Ground-Dwelling Arthropod Densities. <i>Florida Entomologist</i> , <b>2014</b> , 97, 644-652	1	2

21	On the 3/4-exponent von Bertalanffy equation for ontogenetic growth. <i>Ecological Modelling</i> , <b>2014</b> , 276, 23-28	3	13
20	Cascade effects of crop species richness on the diversity of pest insects and their natural enemies. <i>Science China Life Sciences</i> , <b>2014</b> , 57, 718-25	8.5	11
19	Influence of air temperature on the first flowering date of <i>Prunus yedoensis</i> Matsum. <i>Ecology and Evolution</i> , <b>2014</b> , 4, 292-9	2.8	3
18	Confidence interval of intrinsic optimum temperature estimated using thermodynamic SSI model. <i>Insect Science</i> , <b>2013</b> , 20, 420-8	3.6	29
17	The general ontogenetic growth model is inapplicable to crop growth. <i>Ecological Modelling</i> , <b>2013</b> , 266, 1-9	3	20
16	A Commensal Consumer-Induced Mediation Effects on Resource-Consumer Interactions. <i>Proceedings of the National Academy of Sciences India Section B - Biological Sciences</i> , <b>2013</b> , 83, 385-404	1.4	1
15	Could the intrinsic rate of increase represent the fitness in terrestrial ectotherms?. <i>Journal of Thermal Biology</i> , <b>2013</b> , 38, 148-151	2.9	15
14	Solving the pitfalls of pitfall trapping: a two-circle method for density estimation of ground-dwelling arthropods. <i>Methods in Ecology and Evolution</i> , <b>2013</b> , 4, 865-871	7.7	16
13	Effect of temperature on the development of <i>Laodelphax striatellus</i> (Homoptera: Delphacidae). <i>Journal of Economic Entomology</i> , <b>2013</b> , 106, 107-14	2.2	19
12	Testing the rate isomorphy hypothesis using five statistical methods. <i>Insect Science</i> , <b>2012</b> , 19, 121-128	3.6	13
11	Influence of temperature on the northern distribution limits of <i>Scirpophaga incertulas</i> Walker (Lepidoptera: Pyralidae) in China. <i>Journal of Thermal Biology</i> , <b>2012</b> , 37, 130-137	2.9	19
10	Population decrease of <i>Scirpophaga incertulas</i> Walker (Lepidoptera Pyralidae) under climate warming. <i>Ecology and Evolution</i> , <b>2012</b> , 2, 58-64	2.8	9
9	Intrinsic optimum temperature of the diamondback moth and its ecological meaning. <i>Environmental Entomology</i> , <b>2012</b> , 41, 714-22	2.1	13
8	Common-intersection hypothesis of development rate lines of ectotherms within a taxon revisited. <i>Journal of Thermal Biology</i> , <b>2011</b> , 36, 422-429	2.9	10
7	A simple model for describing the effect of temperature on insect developmental rate. <i>Journal of Asia-Pacific Entomology</i> , <b>2011</b> , 14, 15-20	1.4	54
6	Applications of the Bootstrap to Insect Physiology. <i>Florida Entomologist</i> , <b>2011</b> , 94, 1036-1041	1	30
5	A Modified Program for Estimating the Parameters of the SSI Model. <i>Environmental Entomology</i> , <b>2011</b> , 40, 462-469	2.1	43
4	How to compare the lower developmental thresholds. <i>Environmental Entomology</i> , <b>2010</b> , 39, 2033-8	2.1	15

3	A comparison of different thermal performance functions describing temperature-dependent development rates. <i>Journal of Thermal Biology</i> , <b>2010</b> , 35, 225-231	2.9	66
2	An elliptical blade is not a true ellipse, but a superellipse Evidence from two <i>Michelia</i> species. <i>Journal of Forestry Research</i> , 1	2	3
1	Comparison of a universal (but complex) model for avian egg shape with a simpler model. <i>Annals of the New York Academy of Sciences</i> ,	6.5	0