Pei-Jian Shi

List of Publications by Year in Descending Order

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.. *American Journal of Botany*, **2022**,	2.7	1
91	A nondestructive method of calculating the wing area of insects.. *Ecology and Evolution*, **2022**, 12, e8792	2.8	0
90	Influence of Leaf Age on the Scaling Relationships of Lamina Mass vs. Area.. *Frontiers in Plant Science*, **2022**, 13, 860206	6.2	0
89	Evidence That Supertriangles Exist in Nature from the Vertical Projections of Koelreuteria paniculata Fruit. *Symmetry*, **2022**, 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.. *American Journal of Botany*, **2022**,	2.7	2
87	Ellipticalness index a simple measure of the complexity of oval leaf shape. *Pakistan Journal of Botany*, **2022**, 54,	2	2
86	Application of an Ovate Leaf Shape Model to Evaluate Leaf Bilateral Asymmetry and Calculate Lamina Centroid Location.. *Frontiers in Plant Science*, **2021**, 12, 822907	6.2	0
85	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	2.8	5
84	Leaf size estimation based on leaf length, width and shape. *Annals of Botany*, **2021**, 128, 395-406	4.1	9
83	Influence of leaf shape on the scaling of leaf surface area and length in bamboo plants. *Trees - Structure and Function*, **2021**, 35, 709-715	2.6	8
82	Plant Age Has a Minor Effect on Non-Destructive Leaf Area Calculations in Moso Bamboo (Phyllostachys edulis). *Symmetry*, **2021**, 13, 369	2.7	7
81	Spatial distribution characteristics of stomata at the areole level in Michelia cavaleriei var. platypetala (Magnoliaceae). *Annals of Botany*, **2021**, 128, 875-886	4.1	2
80	A General Model for Describing the Ovate Leaf Shape. *Symmetry*, **2021**, 13, 1524	2.7	2
79	"Diminishing returns" for leaves of five age-groups of Phyllostachys edulis culms. *American Journal of Botany*, **2021**, 108, 1662-1672	2.7	4
78	A Superellipse with Deformation and Its Application in Describing the Cross-Sectional Shapes of a Square Bamboo. *Symmetry*, **2020**, 12, 2073	2.7	8
77	A general formula for calculating surface area of the similarly shaped leaves: Evidence from six Magnoliaceae species. *Global Ecology and Conservation*, **2020**, 23, e01129	2.8	11
76	Precipitation is the most crucial factor determining the distribution of moso bamboo in Mainland China. *Global Ecology and Conservation*, **2020**, 22, e00924	2.8	15

75	Leaf Bilateral Symmetry and the Scaling of the Perimeter vs. the Surface Area in 15 Vine Species. *Forests*, **2020**, 11, 246	2.8	13
74	The Generalized Gielis Geometric Equation and Its Application. *Symmetry*, **2020**, 12, 645	2.7	10
73	Leaf shape influences the scaling of leaf dry mass vs. area: a test case using bamboos. *Annals of Forest Science*, **2020**, 77, 1	3.1	21
72	A Note on Spirals and Curvature **2020**, 1, 1		5
71	Does the law of diminishing returns in leaf scaling apply to vines? Evidence from 12 species of climbing plants. *Global Ecology and Conservation*, **2020**, 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. *Forests*, **2020**, 11, 1010	2.8	14
69	Nondestructive estimation of leaf area for 15 species of vines with different leaf shapes. *American Journal of Botany*, **2020**, 107, 1481-1490	2.7	21
68	Mean-variance relationships of leaf bilateral asymmetry for 35 species of plants and their implications. *Global Ecology and Conservation*, **2020**, 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. *Symmetry*, **2020**, 12, 1345	2.7	10
66	Variation in individual biomass decreases faster than mean biomass with increasing density of bamboo stands. *Journal of Forestry Research*, **2020**, 31, 981-987	2	1
65	Comparison of seed morphology of two ginkgo cultivars. *Journal of Forestry Research*, **2020**, 31, 751-7582		8
64	Effects of Salt Stress on the Leaf Shape and Scaling of Pyrus betulifolia Bunge. *Symmetry*, **2019**, 11, 991	2.7	7
63	The scaling relationships of leaf biomass vs. leaf surface area of 12 bamboo species. *Global Ecology and Conservation*, **2019**, 20, e00793	2.8	17
62	Lamina shape does not correlate with lamina surface area: An analysis based on the simplified Gielis equation. *Global Ecology and Conservation*, **2019**, 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. *Global Ecology and Conservation*, **2019**, 19, e00657	2.8	3
60	Leaf area Length allometry and its implications in leaf shape evolution. *Trees - Structure and Function*, **2019**, 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?. *Forests*, **2019**, 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. *Forests*, **2019**, 10, 178	2.8	25

57	Taylor's power law in the Wenchuan earthquake sequence with fluctuation scaling. *Natural Hazards and Earth System Sciences*, **2019**, 19, 1119-1127	3.9	4
56	Scaling Relationships between Leaf Shape and Area of 12 Rosaceae Species. *Symmetry*, **2019**, 11, 1255	2.7	17
55	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	2.8	4
54	A New Flexible Sigmoidal Growth Model. *Symmetry*, **2019**, 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. *Trees - Structure and Function*, **2018**, 32, 751-763	2.6	12
52	Simulation of crop growth, time to maturity and yield by an improved sigmoidal model. *Scientific Reports*, **2018**, 8, 7030	4.9	3
51	Why Does Not the Leaf Weight-Area Allometry of Bamboos Follow the 3/2-Power Law?. *Frontiers in Plant Science*, **2018**, 9, 583	6.2	20
50	Spatial Segregation Facilitates the Coexistence of Tree Species in Temperate Forests. *Forests*, **2018**, 9, 768	2.8	2
49	A General Leaf Area Geometric Formula Exists for Plants□Evidence from the Simplified Gielis Equation. *Forests*, **2018**, 9, 714	2.8	37
48	Taylor□ Power Law for Leaf Bilateral Symmetry. *Forests*, **2018**, 9, 500	2.8	14
47	A Simple Method for Measuring the Bilateral Symmetry of Leaves. *Symmetry*, **2018**, 10, 118	2.7	18
46	Comparison of two ontogenetic growth equations for animals and plants. *Ecological Modelling*, **2017**, 349, 1-10	3	11
45	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	5.8	22
44	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	2	9
43	Comparison of five methods for parameter estimation under Taylor□ power law. *Ecological Complexity*, **2017**, 32, 121-130	2.6	14
42	Exploring key cellular processes and candidate genes regulating the primary thickening growth of Moso underground shoots. *New Phytologist*, **2017**, 214, 81-96	9.8	45
41	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	2	19
40	Internode morphometrics and allometry of Tonkin Cane. *Ecology and Evolution*, **2017**, 7, 9651-9660	2.8	9

39	Investigating the Shape of the Shoot Apical Meristem in Bamboo Using a Superellipse Equation. *Bio-protocol*, **2017**, 7, e2644	0.9	0
38	A general method for parameter estimation in light-response models. *Scientific Reports*, **2016**, 6, 27905	4.9	2
37	Does the size–density relationship developed for bamboo species conform to the self-thinning rule?. *Forest Ecology and Management*, **2016**, 361, 339-345	3.9	15
36	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	2	36
35	Early eclosion of overwintering cotton bollworm moths from warming temperatures accentuates yield loss in wheat. *Agriculture, Ecosystems and Environment*, **2016**, 217, 89-98	5.7	11
34	Capture the time when plants reach their maximum body size by using the beta sigmoid growth equation. *Ecological Modelling*, **2016**, 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. *Insect Science*, **2016**, 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. *Integrative Zoology*, **2016**, 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. *Agricultural and Forest Meteorology*, **2016**, 217, 536	5.8	
30	A geometrical model for testing bilateral symmetry of bamboo leaf with a simplified Gielis equation. *Ecology and Evolution*, **2016**, 6, 6798-6806	2.8	26
29	Dispersal distance determines the exponent of the spatial Taylor's power law. *Ecological Modelling*, **2016**, 335, 48-53	3	19
28	Nonparametric Estimation of Interspecific Spatio-Temporal Niche Separation Between Two Lady Beetles (Coleoptera: Coccinellidae) in Bt Cotton Fields. *Annals of the Entomological Society of America*, **2015**, 108, 807-813	2	3
27	The seesaw effect of winter temperature change on the recruitment of cotton bollworms Helicoverpa armigera through mismatched phenology. *Ecology and Evolution*, **2015**, 5, 5652-61	2.8	10
26	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, 4578-89	2.8	35
25	An optimal proportion of mixing broad-leaved forest for enhancing the effective productivity of moso bamboo. *Ecology and Evolution*, **2015**, 5, 1576-84	2.8	6
24	Capturing spiral radial growth of conifers using the superellipse to model tree-ring geometric shape. *Frontiers in Plant Science*, **2015**, 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. *Ecology and Evolution*, **2014**, 4, 3362-74	2.8	25
22	An Optimization Approach to the Two-Circle Method of Estimating Ground-Dwelling Arthropod Densities. *Florida Entomologist*, **2014**, 97, 644-652	1	2

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

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