

Lawren Sack

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.

186 papers	17,631 citations	65 h-index	130 g-index
199 ext. papers	21,820 ext. citations	7.4 avg, IF	6.83 L-index

#	Paper	IF	Citations
186	Distribution of biomass dynamics in relation to tree size in forests across the world.. <i>New Phytologist</i> , 2022 ,	9.8	2
185	Multi-Stemmed Habit in Trees Contributes Climate Resilience in Tropical Dry Forest. <i>Sustainability</i> , 2022 , 14, 6779	3.6	1
184	Tree height and leaf drought tolerance traits shape growth responses across droughts in a temperate broadleaf forest. <i>New Phytologist</i> , 2021 , 231, 601-616	9.8	22
183	Tree Canopies Reflect Mycorrhizal Composition. <i>Geophysical Research Letters</i> , 2021 , 48, e2021GL092764	4.9	7
182	Shifting access to pools of shoot water sustains gas exchange and increases stem hydraulic safety during seasonal atmospheric drought. <i>Plant, Cell and Environment</i> , 2021 , 44, 2898-2911	8.4	4
181	Harvesting water from unsaturated atmospheres: deliquescence of salt secreted onto leaf surfaces drives reverse sap flow in a dominant arid climate mangrove, <i>Avicennia marina</i> . <i>New Phytologist</i> , 2021 , 231, 1401-1414	9.8	6
180	Hydraulically-vulnerable trees survive on deep-water access during droughts in a tropical forest. <i>New Phytologist</i> , 2021 , 231, 1798-1813	9.8	11
179	Hydraulic-stomatal coordination in tree seedlings: tight correlation across environments and ontogeny in <i>Acer pseudoplatanus</i> . <i>New Phytologist</i> , 2021 , 232, 1297-1310	9.8	1
178	ForestGEO: Understanding forest diversity and dynamics through a global observatory network. <i>Biological Conservation</i> , 2021 , 253, 108907	6.2	36
177	Global root traits (GRooT) database. <i>Global Ecology and Biogeography</i> , 2021 , 30, 25-37	6.1	28
176	The second warning to humanity: contributions and solutions from conservation physiology 2021 , 9,		6
175	Leaf turgor loss point shapes local and regional distributions of evergreen but not deciduous tropical trees. <i>New Phytologist</i> , 2021 , 230, 485-496	9.8	7
174	Developmental and biophysical determinants of grass leaf size worldwide. <i>Nature</i> , 2021 , 592, 242-247	50.4	12
173	Detecting forest response to droughts with global observations of vegetation water content. <i>Global Change Biology</i> , 2021 , 27, 6005-6024	11.4	9
172	Reconstructing leaf area from fragments: testing three methods using a fossil paleogene species. <i>American Journal of Botany</i> , 2020 , 107, 1786-1797	2.7	
171	Why is C4 photosynthesis so rare in trees?. <i>Journal of Experimental Botany</i> , 2020 , 71, 4629-4638	7	3
170	Plant Trait Networks: Improved Resolution of the Dimensionality of Adaptation. <i>Trends in Ecology and Evolution</i> , 2020 , 35, 908-918	10.9	37

169	Climatic sensitivity of species vegetative and reproductive phenology in a Hawaiian montane wet forest. <i>Biotropica</i> , 2020 , 52, 825-835	2.3	0
168	Coordinated decline of leaf hydraulic and stomatal conductances under drought is not linked to leaf xylem embolism for different grapevine cultivars. <i>Journal of Experimental Botany</i> , 2020 , 71, 7286-7300	7.0	6
167	Functional traits indicate faster resource acquisition for alien herbs than native shrubs in an urban Mediterranean shrubland. <i>Biological Invasions</i> , 2020 , 22, 2699-2712	2.7	5
166	The handbook for standardized field and laboratory measurements in terrestrial climate change experiments and observational studies (ClimEx). <i>Methods in Ecology and Evolution</i> , 2020 , 11, 22-37	7.7	35
165	Leaf drought tolerance cannot be inferred from classic leaf traits in a tropical rainforest. <i>Journal of Ecology</i> , 2020 , 108, 1030-1045	6	14
164	TRY plant trait database - enhanced coverage and open access. <i>Global Change Biology</i> , 2020 , 26, 119-188	11.4	399
163	Trait Multi-Functionality in Plant Stress Response. <i>Integrative and Comparative Biology</i> , 2020 , 60, 98-112	2.8	12
162	When facilitation meets clonal integration in forest canopies. <i>New Phytologist</i> , 2020 , 225, 135-142	9.8	15
161	Prediction of leaf water potential and relative water content using terahertz radiation spectroscopy. <i>Plant Direct</i> , 2020 , 4, e00197	3.3	13
160	Patterns of nitrogen-fixing tree abundance in forests across Asia and America. <i>Journal of Ecology</i> , 2019 , 107, 2598-2610	6	15
159	Thresholds for leaf damage due to dehydration: declines of hydraulic function, stomatal conductance and cellular integrity precede those for photochemistry. <i>New Phytologist</i> , 2019 , 223, 134-149	8.8	44
158	Shoot surface water uptake enables leaf hydraulic recovery in <i>Avicennia marina</i> . <i>New Phytologist</i> , 2019 , 224, 1504-1511	9.8	12
157	A stomatal safety-efficiency trade-off constrains responses to leaf dehydration. <i>Nature Communications</i> , 2019 , 10, 3398	17.4	46
156	Anatomical constraints to nonstomatal diffusion conductance and photosynthesis in lycophytes and bryophytes. <i>New Phytologist</i> , 2019 , 222, 1256-1270	9.8	40
155	Seedling response to water stress in valley oak (<i>Quercus lobata</i>) is shaped by different gene networks across populations. <i>Molecular Ecology</i> , 2019 , 28, 5248-5264	5.7	9
154	Disentangling the functional trait correlates of spatial aggregation in tropical forest trees. <i>Ecology</i> , 2019 , 100, e02591	4.6	13
153	Covariation between leaf hydraulics and biomechanics is driven by leaf density in Mediterranean shrubs. <i>Trees - Structure and Function</i> , 2019 , 33, 507-519	2.6	4
152	An extensive suite of functional traits distinguishes Hawaiian wet and dry forests and enables prediction of species vital rates. <i>Functional Ecology</i> , 2019 , 33, 712-734	5.6	22

151	Ecosystem Traits Linking Functional Traits to Macroecology. <i>Trends in Ecology and Evolution</i> , 2019 , 34, 200-210	10.9	64
150	Embracing 3D Complexity in Leaf Carbon-Water Exchange. <i>Trends in Plant Science</i> , 2019 , 24, 15-24	13.1	32
149	Regional forcing explains local species diversity and turnover on tropical islands. <i>Global Ecology and Biogeography</i> , 2018 , 27, 474-486	6.1	26
148	Bundle sheath lignification mediates the linkage of leaf hydraulics and venation. <i>Plant, Cell and Environment</i> , 2018 , 41, 342-353	8.4	17
147	ABA Accumulation in Dehydrating Leaves Is Associated with Decline in Cell Volume, Not Turgor Pressure. <i>Plant Physiology</i> , 2018 , 176, 489-495	6.6	34
146	Dry-season decline in tree sapflux is correlated with leaf turgor loss point in a tropical rainforest. <i>Functional Ecology</i> , 2018 , 32, 2285-2297	5.6	13
145	Leaf rehydration capacity: Associations with other indices of drought tolerance and environment. <i>Plant, Cell and Environment</i> , 2018 , 41, 2638-2653	8.4	13
144	Global importance of large-diameter trees. <i>Global Ecology and Biogeography</i> , 2018 , 27, 849-864	6.1	185
143	Climate sensitive size-dependent survival in tropical trees. <i>Nature Ecology and Evolution</i> , 2018 , 2, 1436-1442	14.2	23
142	OpenNahele: the open Hawaiian forest plot database. <i>Biodiversity Data Journal</i> , 2018 , e28406	1.8	5
141	Variation in leaf chlorophyll concentration from tropical to cold-temperate forests: Association with gross primary productivity. <i>Ecological Indicators</i> , 2018 , 85, 383-389	5.8	37
140	Variation of stomatal traits from cold temperate to tropical forests and association with water use efficiency. <i>Functional Ecology</i> , 2018 , 32, 20-28	5.6	56
139	Repeated range expansion and niche shift in a volcanic hotspot archipelago: Radiation of C Hawaiian subgenus (Euphorbiaceae). <i>Ecology and Evolution</i> , 2018 , 8, 8523-8536	2.8	5
138	A methodology to derive global maps of leaf traits using remote sensing and climate data. <i>Remote Sensing of Environment</i> , 2018 , 218, 69-88	13.2	58
137	The Causes of Leaf Hydraulic Vulnerability and Its Influence on Gas Exchange in. <i>Plant Physiology</i> , 2018 , 178, 1584-1601	6.6	27
136	Evolution of leaf structure and drought tolerance in species of Californian Ceanothus. <i>American Journal of Botany</i> , 2018 , 105, 1672-1687	2.7	7
135	Response to Comment on "Plant diversity increases with the strength of negative density dependence at the global scale". <i>Science</i> , 2018 , 360,	33.3	4
134	Response to Comment on "Plant diversity increases with the strength of negative density dependence at the global scale". <i>Science</i> , 2018 , 360,	33.3	7

133	Outside-Xylem Vulnerability, Not Xylem Embolism, Controls Leaf Hydraulic Decline during Dehydration. <i>Plant Physiology</i> , 2017 , 173, 1197-1210	6.6	124
132	Stronger seasonal adjustment in leaf turgor loss point in lianas than trees in an Amazonian forest. <i>Biology Letters</i> , 2017 , 13,	3.6	22
131	The Sites of Evaporation within Leaves. <i>Plant Physiology</i> , 2017 , 173, 1763-1782	6.6	59
130	Speed versus endurance tradeoff in plants: Leaves with higher photosynthetic rates show stronger seasonal declines. <i>Scientific Reports</i> , 2017 , 7, 42085	4.9	23
129	The anatomical and compositional basis of leaf mass per area. <i>Ecology Letters</i> , 2017 , 20, 412-425	10	87
128	Leaf water storage increases with salinity and aridity in the mangrove <i>Avicennia marina</i> : integration of leaf structure, osmotic adjustment and access to multiple water sources. <i>Plant, Cell and Environment</i> , 2017 , 40, 1576-1591	8.4	40
127	Global climatic drivers of leaf size. <i>Science</i> , 2017 , 357, 917-921	33.3	334
126	Predicting habitat affinities of plant species using commonly measured functional traits. <i>Journal of Vegetation Science</i> , 2017 , 28, 1082-1095	3.1	28
125	The causes and consequences of leaf hydraulic decline with dehydration. <i>Journal of Experimental Botany</i> , 2017 , 68, 4479-4496	7	64
124	Mapping local and global variability in plant trait distributions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E10937-E10946	11.5	103
123	Plant diversity increases with the strength of negative density dependence at the global scale. <i>Science</i> , 2017 , 356, 1389-1392	33.3	150
122	Leaf vein xylem conduit diameter influences susceptibility to embolism and hydraulic decline. <i>New Phytologist</i> , 2017 , 213, 1076-1092	9.8	67
121	Optimal plant water economy. <i>Plant, Cell and Environment</i> , 2017 , 40, 881-896	8.4	65
120	Hydraulic basis for the evolution of photosynthetic productivity. <i>Nature Plants</i> , 2016 , 2, 16072	11.5	126
119	The correlations and sequence of plant stomatal, hydraulic, and wilting responses to drought. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 13098-13103	11.5	228
118	Trait convergence and diversification arising from a complex evolutionary history in Hawaiian species of <i>Scaevola</i> . <i>Oecologia</i> , 2016 , 181, 1083-100	2.9	4
117	Does climate directly influence NPP globally?. <i>Global Change Biology</i> , 2016 , 22, 12-24	11.4	66
116	Drought tolerance as a driver of tropical forest assembly: resolving spatial signatures for multiple processes. <i>Ecology</i> , 2016 , 97, 503-14	4.6	21

115	Density-dependent seedling mortality varies with light availability and species abundance in wet and dry Hawaiian forests. <i>Journal of Ecology</i> , 2016 , 104, 773-780	6	26
114	Corrigendum to: New handbook for standardised measurement of plant functional traits worldwide. <i>Australian Journal of Botany</i> , 2016 , 64, 715	1.2	166
113	Sources of Error in Mammalian Genetic Screens. <i>G3: Genes, Genomes, Genetics</i> , 2016 , 6, 2781-90	3.2	43
112	Meta-analysis reveals that hydraulic traits explain cross-species patterns of drought-induced tree mortality across the globe. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 5024-9	11.5	361
111	The Developmental Basis of Stomatal Density and Flux. <i>Plant Physiology</i> , 2016 , 171, 2358-63	6.6	49
110	Osmotic and hydraulic adjustment of mangrove saplings to extreme salinity. <i>Tree Physiology</i> , 2016 , 36, 1562-1572	4.2	20
109	Why are leaves hydraulically vulnerable?. <i>Journal of Experimental Botany</i> , 2016 , 67, 4917-9	7	16
108	Resolving Australian analogs for an Eocene Patagonian paleorainforest using leaf size and floristics. <i>American Journal of Botany</i> , 2015 , 102, 1160-73	2.7	21
107	Relationships between specific leaf area and leaf composition in succulent and non-succulent species of contrasting semi-desert communities in south-eastern Spain. <i>Journal of Arid Environments</i> , 2015 , 118, 69-83	2.5	15
106	Drought tolerance as predicted by leaf water potential at turgor loss point varies strongly across species within an Amazonian forest. <i>Functional Ecology</i> , 2015 , 29, 1268-1277	5.6	108
105	How Does Leaf Anatomy Influence Water Transport outside the Xylem?. <i>Plant Physiology</i> , 2015 , 168, 1616-35	6.6	108
104	How does biomass distribution change with size and differ among species? An analysis for 1200 plant species from five continents. <i>New Phytologist</i> , 2015 , 208, 736-49	9.8	153
103	Are leaves 'freewheelin'? Testing for a wheeler-type effect in leaf xylem hydraulic decline. <i>Plant, Cell and Environment</i> , 2015 , 38, 534-43	8.4	31
102	Light-induced plasticity in leaf hydraulics, venation, anatomy, and gas exchange in ecologically diverse Hawaiian lobeliads. <i>New Phytologist</i> , 2015 , 207, 43-58	9.8	59
101	CTFS-ForestGEO: a worldwide network monitoring forests in an era of global change. <i>Global Change Biology</i> , 2015 , 21, 528-49	11.4	368
100	Leaf hydraulic conductance varies with vein anatomy across <i>Arabidopsis thaliana</i> wild-type and leaf vein mutants. <i>Plant, Cell and Environment</i> , 2015 , 38, 2735-46	8.4	26
99	The Anatomical Determinants of Leaf Hydraulic Function 2015 , 255-271		7
98	Extending the generality of leaf economic design principles in the cycads, an ancient lineage. <i>New Phytologist</i> , 2015 , 206, 817-29	9.8	27

97	Leaf life span and the leaf economic spectrum in the context of whole plant architecture. <i>Journal of Ecology</i> , 2014 , 102, 328-336	6	68
96	Which is a better predictor of plant traits: temperature or precipitation?. <i>Journal of Vegetation Science</i> , 2014 , 25, 1167-1180	3.1	217
95	Global analysis of plasticity in turgor loss point, a key drought tolerance trait. <i>Ecology Letters</i> , 2014 , 17, 1580-90	10	140
94	Leaf and stem physiological responses to summer and winter extremes of woody species across temperate ecosystems. <i>Oikos</i> , 2014 , 123, 1281-1290	4	22
93	Coordination of stem and leaf hydraulic conductance in southern California shrubs: a test of the hydraulic segmentation hypothesis. <i>New Phytologist</i> , 2014 , 203, 842-50	9.8	104
92	Are fern stomatal responses to different stimuli coordinated? Testing responses to light, vapor pressure deficit, and CO ₂ for diverse species grown under contrasting irradiances. <i>New Phytologist</i> , 2014 , 204, 92-104	9.8	29
91	Forest structure in low-diversity tropical forests: a study of Hawaiian wet and dry forests. <i>PLoS ONE</i> , 2014 , 9, e103268	3.7	37
90	Leaf mass per area is independent of vein length per area: avoiding pitfalls when modelling phenotypic integration (reply to Blonder et al. 2014). <i>Journal of Experimental Botany</i> , 2014 , 65, 5115-23	7	21
89	Leaf vein length per unit area is not intrinsically dependent on image magnification: avoiding measurement artifacts for accuracy and precision. <i>Plant Physiology</i> , 2014 , 166, 829-38	6.6	35
88	Leaf shrinkage with dehydration: coordination with hydraulic vulnerability and drought tolerance. <i>Plant Physiology</i> , 2014 , 164, 1772-88	6.6	126
87	Native trees show conservative water use relative to invasive trees: results from a removal experiment in a Hawaiian wet forest 2014 , 2, cou016		48
86	Trade-offs in seedling growth and survival within and across tropical forest microhabitats. <i>Ecology and Evolution</i> , 2014 , 4, 3755-67	2.8	28
85	Making the best of the worst of times: traits underlying combined shade and drought tolerance of <i>Ruscus aculeatus</i> and <i>Ruscus microglossum</i> (Asparagaceae). <i>Functional Plant Biology</i> , 2013 , 41, 11-24	2.7	16
84	What is conservation physiology? Perspectives on an increasingly integrated and essential science (J) 2013 , 1, cot001		283
83	Ecological variation in leaf biomechanics and its scaling with tissue structure across three mediterranean-climate plant communities. <i>Functional Ecology</i> , 2013 , 27, 544-554	5.6	27
82	Leaf venation: structure, function, development, evolution, ecology and applications in the past, present and future. <i>New Phytologist</i> , 2013 , 198, 983-1000	9.8	407
81	New handbook for standardised measurement of plant functional traits worldwide. <i>Australian Journal of Botany</i> , 2013 , 61, 167	1.2	1983
80	Is hemiepiphytism an adaptation to high irradiance? Testing seedling responses to light levels and drought in hemiepiphytic and non-hemiepiphytic <i>Ficus</i> . <i>Physiologia Plantarum</i> , 2013 , 148, 74-86	4.6	13

79	Leaf mesophyll conductance and leaf hydraulic conductance: an introduction to their measurement and coordination. <i>Journal of Experimental Botany</i> , 2013 , 64, 3965-81	7	136
78	How do leaf veins influence the worldwide leaf economic spectrum? Review and synthesis. <i>Journal of Experimental Botany</i> , 2013 , 64, 4053-80	7	130
77	Seedling recruitment factors in low-diversity Hawaiian wet forest: towards global comparisons among tropical forests. <i>Ecosphere</i> , 2013 , 4, art24	3.1	19
76	Soybean leaf hydraulic conductance does not acclimate to growth at elevated [CO ₂] or temperature in growth chambers or in the field. <i>Annals of Botany</i> , 2013 , 112, 911-8	4.1	22
75	Differential allocation to photosynthetic and non-photosynthetic nitrogen fractions among native and invasive species. <i>PLoS ONE</i> , 2013 , 8, e64502	3.7	53
74	Allometry of cells and tissues within leaves. <i>American Journal of Botany</i> , 2013 , 100, 1936-48	2.7	47
73	The Evolution of Photosynthetic Anatomy in Viburnum (Adoxaceae). <i>International Journal of Plant Sciences</i> , 2013 , 174, 1277-1291	2.6	28
72	The heterogeneity and spatial patterning of structure and physiology across the leaf surface in giant leaves of <i>Alocasia macrorrhiza</i> . <i>PLoS ONE</i> , 2013 , 8, e66016	3.7	16
71	The determinants of leaf turgor loss point and prediction of drought tolerance of species and biomes: a global meta-analysis. <i>Ecology Letters</i> , 2012 , 15, 393-405	10	489
70	Measurements of stem xylem hydraulic conductivity in the laboratory and field. <i>Methods in Ecology and Evolution</i> , 2012 , 3, 685-694	7.7	84
69	Developmentally based scaling of leaf venation architecture explains global ecological patterns. <i>Nature Communications</i> , 2012 , 3, 837	17.4	200
68	Rapid determination of comparative drought tolerance traits: using an osmometer to predict turgor loss point. <i>Methods in Ecology and Evolution</i> , 2012 , 3, 880-888	7.7	119
67	Hydraulic conductance of <i>Acacia phyllodes</i> (foliage) is driven by primary nerve (vein) conductance and density. <i>Plant, Cell and Environment</i> , 2012 , 35, 158-68	8.4	31
66	Combined impacts of irradiance and dehydration on leaf hydraulic conductance: insights into vulnerability and stomatal control. <i>Plant, Cell and Environment</i> , 2012 , 35, 857-71	8.4	86
65	Pitfalls and possibilities in the analysis of biomass allocation patterns in plants. <i>Frontiers in Plant Science</i> , 2012 , 3, 259	6.2	85
64	Evolution of leaf form correlates with tropical-temperate transitions in Viburnum (Adoxaceae). <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012 , 279, 3905-13	4.4	62
63	Evolution of C ₄ plants: a new hypothesis for an interaction of CO ₂ and water relations mediated by plant hydraulics. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2012 , 367, 583-600	5.8	132
62	Dynamics of leaf hydraulic conductance with water status: quantification and analysis of species differences under steady state. <i>Journal of Experimental Botany</i> , 2012 , 63, 643-58	7	89

61	Measurement of leaf hydraulic conductance and stomatal conductance and their responses to irradiance and dehydration using the Evaporative Flux Method (EFM). <i>Journal of Visualized Experiments</i> , 2012 ,	1.6	26
60	Drivers of morphological diversity and distribution in the Hawaiian fern flora: trait associations with size, growth form, and environment. <i>American Journal of Botany</i> , 2011 , 98, 956-66	2.7	18
59	Human impacts on leaf economics in heterogeneous landscapes: the effect of harvesting non-timber forest products from African mahogany across habitats and climates. <i>Journal of Applied Ecology</i> , 2011 , 48, 844-852	5.8	13
58	Ecological differentiation in xylem cavitation resistance is associated with stem and leaf structural traits. <i>Plant, Cell and Environment</i> , 2011 , 34, 137-48	8.4	231
57	Impact of light quality on leaf and shoot hydraulic properties: a case study in silver birch (<i>Betula pendula</i>). <i>Plant, Cell and Environment</i> , 2011 , 34, 1079-87	8.4	39
56	TRY is a global database of plant traits. <i>Global Change Biology</i> , 2011 , 17, 2905-2935	11.4	1623
55	Does global stoichiometric theory apply to bryophytes? Tests across an elevation-soil age ecosystem matrix on Mauna Loa, Hawaii. <i>Journal of Ecology</i> , 2011 , 99, 122-134	6	23
54	Hydraulics and life history of tropical dry forest tree species: coordination of species' drought and shade tolerance. <i>New Phytologist</i> , 2011 , 191, 480-495	9.8	201
53	Xylem traits mediate a trade-off between resistance to freeze-thaw-induced embolism and photosynthetic capacity in overwintering evergreens. <i>New Phytologist</i> , 2011 , 191, 996-1005	9.8	61
52	Shifts in bryophyte carbon isotope ratio across an elevation-soil age matrix on Mauna Loa, Hawaii: do bryophytes behave like vascular plants?. <i>Oecologia</i> , 2011 , 166, 11-22	2.9	14
51	The role of bundle sheath extensions and life form in stomatal responses to leaf water status. <i>Plant Physiology</i> , 2011 , 156, 962-73	6.6	70
50	Ecology of hemiepiphytism in fig species is based on evolutionary correlation of hydraulics and carbon economy. <i>Ecology</i> , 2011 , 92, 2117-30	4.6	38
49	Decline of leaf hydraulic conductance with dehydration: relationship to leaf size and venation architecture. <i>Plant Physiology</i> , 2011 , 156, 832-43	6.6	237
48	How does moss photosynthesis relate to leaf and canopy structure? Trait relationships for 10 Hawaiian species of contrasting light habitats. <i>New Phytologist</i> , 2010 , 185, 156-72	9.8	96
47	Turning over a new 'leaf': multiple functional significances of leaves versus phyllodes in Hawaiian <i>Acacia koa</i> . <i>Plant, Cell and Environment</i> , 2010 , 33, 2084-100	8.4	50
46	Differentiation of leaf water flux and drought tolerance traits in hemiepiphytic and non-hemiepiphytic <i>Ficus</i> tree species. <i>Functional Ecology</i> , 2010 , 24, 731-740	5.6	62
45	Viewing leaf structure and evolution from a hydraulic perspective. <i>Functional Plant Biology</i> , 2010 , 37, 488	2.7	203
44	Decoding leaf hydraulics with a spatially explicit model: principles of venation architecture and implications for its evolution. <i>American Naturalist</i> , 2010 , 175, 447-60	3.7	122

43	Comparative water use of native and invasive plants at multiple scales: a global meta-analysis. <i>Ecology</i> , 2010 , 91, 2705-15	4.6	90
42	Digital data collection in forest dynamics plots. <i>Methods in Ecology and Evolution</i> , 2010 , 1, 274-279	7.7	6
41	A unique web resource for physiology, ecology and the environmental sciences: PrometheusWiki. <i>Functional Plant Biology</i> , 2010 , 37, 687	2.7	13
40	Hawaiian native forest conserves water relative to timber plantation: species and stand traits influence water use 2009 , 19, 1429-43		58
39	Response to comment on Coomes et al . Scaling of xylem vessels and veins within the leaves of oak species <i>Biology Letters</i> , 2009 , 5, 381-382	3.6	1
38	Leaf Trait Diversification and Design in Seven Rare Taxa of the Hawaiian Plantago Radiation. <i>International Journal of Plant Sciences</i> , 2009 , 170, 61-75	2.6	108
37	The rapid light response of leaf hydraulic conductance: new evidence from two experimental methods. <i>Plant, Cell and Environment</i> , 2008 , 31, 1803-12	8.4	100
36	Scaling of xylem vessels and veins within the leaves of oak species. <i>Biology Letters</i> , 2008 , 4, 302-6	3.6	56
35	Leaf palmate venation and vascular redundancy confer tolerance of hydraulic disruption. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 1567-72	11.5	124
34	Relating leaf photosynthetic rate to whole-plant growth: drought and shade effects on seedlings of four Quercus species. <i>Functional Plant Biology</i> , 2008 , 35, 725-737	2.7	59
33	Scaling of Frond Form in Hawaiian Tree Fern Cibotium glaucum: Compliance with Global Trends and Application for Field Estimation. <i>Biotropica</i> , 2008 , 40, 686-691	2.3	12
32	Fossil leaf economics quantified: calibration, Eocene case study, and implications. <i>Paleobiology</i> , 2007 , 33, 574-589	2.6	96
31	Adjustment of structure and function of Hawaiian Metrosideros polymorpha at high vs. low precipitation. <i>Functional Ecology</i> , 2007 , 21, 1063-1071	5.6	65
30	Diversity of hydraulic traits in nine Cordia species growing in tropical forests with contrasting precipitation. <i>New Phytologist</i> , 2007 , 175, 686-698	9.8	155
29	Contrasting Structure and Function of Pubescent and Glabrous Varieties of Hawaiian Metrosideros polymorpha (Myrtaceae) at High Elevation. <i>Biotropica</i> , 2007 , 40, 070606001740001-???	2.3	10
28	Genetic variation in leaf pigment, optical and photosynthetic function among diverse phenotypes of Metrosideros polymorpha grown in a common garden. <i>Oecologia</i> , 2007 , 151, 387-400	2.9	92
27	Atmospheric and soil drought reduce nocturnal conductance in live oaks. <i>Tree Physiology</i> , 2007 , 27, 611-402	4.0	82
26	How strong is intracanopy leaf plasticity in temperate deciduous trees?. <i>American Journal of Botany</i> , 2006 , 93, 829-39	2.7	142

25	Structural determinants of leaf light-harvesting capacity and photosynthetic potentials 2006 , 385-419		110
24	Leaf structural diversity is related to hydraulic capacity in tropical rain forest trees. <i>Ecology</i> , 2006 , 87, 483-91	4.6	258
23	Leaf hydraulics. <i>Annual Review of Plant Biology</i> , 2006 , 57, 361-81	30.7	655
22	Bacterial leaf nodule symbiosis in <i>Ardisia</i> (Myrsinaceae): does it contribute to seedling growth capacity?. <i>Plant Biology</i> , 2005 , 7, 495-500	3.7	10
21	Leaf hydraulic architecture correlates with regeneration irradiance in tropical rainforest trees. <i>New Phytologist</i> , 2005 , 167, 403-13	9.8	159
20	Leaf Hydraulics and Its Implications in Plant Structure and Function 2005 , 93-114		40
19	How are leaves plumbed inside a branch? Differences in leaf-to-leaf hydraulic sectoriality among six temperate tree species. <i>Journal of Experimental Botany</i> , 2005 , 56, 2267-73	7	36
18	The dependence of leaf hydraulic conductance on irradiance during HPFM measurements: any role for stomatal response?. <i>Journal of Experimental Botany</i> , 2005 , 56, 737-44	7	105
17	Hydraulic analysis of water flow through leaves of sugar maple and red oak. <i>Plant Physiology</i> , 2004 , 134, 1824-33	6.6	160
16	The Cohesion-Tension Theory. <i>New Phytologist</i> , 2004 , 163, 451-452	9.8	54
15	Responses of temperate woody seedlings to shade and drought: do trade-offs limit potential niche differentiation?. <i>Oikos</i> , 2004 , 107, 110-127	4	146
14	The major veins of mesomorphic leaves revisited: tests for conductive overload in <i>Acer saccharum</i> (Aceraceae) and <i>Quercus rubra</i> (Fagaceae). <i>American Journal of Botany</i> , 2003 , 90, 32-9	2.7	33
13	The functional morphology of juvenile plants tolerant of strong summer drought in shaded forest understories in southern Spain. <i>Plant Ecology</i> , 2003 , 168, 139-163	1.7	100
12	The Hydrology of leaves: co-ordination of structure and function in temperate woody species. <i>Plant, Cell and Environment</i> , 2003 , 26, 1343-1356	8.4	490
11	Crossovers in seedling relative growth rates between low and high irradiance: analyses and ecological potential. <i>Functional Ecology</i> , 2003 , 17, 281-287	5.6	25
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9	Hydraulic architecture of leaf venation in <i>Laurus nobilis</i> L.. <i>Plant, Cell and Environment</i> , 2002 , 25, 1445-1454	15.0	90
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7	Global allocation rules for patterns of biomass partitioning. <i>Science</i> , 2002 , 296, 1923	33.3	28
6	Why do species of woody seedlings change rank in relative growth rate between low and high irradiance?. <i>Functional Ecology</i> , 2001 , 15, 145-154	5.6	88
5	Optimization of the Short-Circuit Behaviour of NPT-IGBT by the Gate Drive. <i>EPE Journal (European Power Electronics and Drives Journal)</i> , 1996 , 6, 20-26	0.4	
4	NOTE. ISOLATION OF FOUR NEW STRAINS OF CHLAMYDOMONAS REINHARDTII (CHLOROPHYTA) FROM SOIL SAMPLES1. <i>Journal of Phycology</i> , 1994 , 30, 770-773	3	33
3	Causes of variation in leaf-level drought tolerance within an Amazonian forest. <i>The Journal of Plant Hydraulics</i> , 3, e004		24
2	Climatic sensitivity of species vegetative and reproductive phenology in a Hawaiian montane wet forest		1
1	Global Root Traits (GRoot) Database		2