

# Io Niinemets

## List of Publications by Citations

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423  
papers

36,129  
citations

94  
h-index

180  
g-index

454  
ext. papers

43,467  
ext. citations

6.5  
avg, IF

7.68  
L-index

#	Paper	IF	Citations
423	The worldwide leaf economics spectrum. <i>Nature</i> , <b>2004</b> , 428, 821-7	50.4	4915
422	TRY global database of plant traits. <i>Global Change Biology</i> , <b>2011</b> , 17, 2905-2935	11.4	1623
421	Causes and consequences of variation in leaf mass per area (LMA): a meta-analysis. <i>New Phytologist</i> , <b>2009</b> , 182, 565-588	9.8	1547
420	Shade Tolerance, a Key Plant Feature of Complex Nature and Consequences. <i>Annual Review of Ecology, Evolution, and Systematics</i> , <b>2008</b> , 39, 237-257	13.5	849
419	TOLERANCE TO SHADE, DROUGHT, AND WATERLOGGING OF TEMPERATE NORTHERN HEMISPHERE TREES AND SHRUBS. <i>Ecological Monographs</i> , <b>2006</b> , 76, 521-547	9	697
418	Research review. Components of leaf dry mass per area (thickness and density) alter leaf photosynthetic capacity in reverse directions in woody plants. <i>New Phytologist</i> , <b>1999</b> , 144, 35-47	9.8	561
417	GLOBAL-SCALE CLIMATIC CONTROLS OF LEAF DRY MASS PER AREA, DENSITY, AND THICKNESS IN TREES AND SHRUBS. <i>Ecology</i> , <b>2001</b> , 82, 453-469	4.6	541
416	Modulation of leaf economic traits and trait relationships by climate. <i>Global Ecology and Biogeography</i> , <b>2005</b> , 14, 411-421	6.1	535
415	Atmospheric composition change: EcosystemsAtmosphere interactions. <i>Atmospheric Environment</i> , <b>2009</b> , 43, 5193-5267	5.3	506
414	A model separating leaf structural and physiological effects on carbon gain along light gradients for the shade-tolerant species <i>Acer saccharum</i> . <i>Plant, Cell and Environment</i> , <b>1997</b> , 20, 845-866	8.4	470
413	Mesophyll diffusion conductance to CO <sub>2</sub> : an unappreciated central player in photosynthesis. <i>Plant Science</i> , <b>2012</b> , 193-194, 70-84	5.3	449
412	Responses of forest trees to single and multiple environmental stresses from seedlings to mature plants: Past stress history, stress interactions, tolerance and acclimation. <i>Forest Ecology and Management</i> , <b>2010</b> , 260, 1623-1639	3.9	437
411	TRY plant trait database - enhanced coverage and open access. <i>Global Change Biology</i> , <b>2020</b> , 26, 119-188	11.4	399
410	Drought-tolerance of wheat improved by rhizosphere bacteria from harsh environments: enhanced biomass production and reduced emissions of stress volatiles. <i>PLoS ONE</i> , <b>2014</b> , 9, e96086	3.7	360
409	Leaf functional anatomy in relation to photosynthesis. <i>Plant Physiology</i> , <b>2011</b> , 155, 108-16	6.6	358
408	Photosynthesis and resource distribution through plant canopies. <i>Plant, Cell and Environment</i> , <b>2007</b> , 30, 1052-71	8.4	354
407	A review of light interception in plant stands from leaf to canopy in different plant functional types and in species with varying shade tolerance. <i>Ecological Research</i> , <b>2010</b> , 25, 693-714	1.9	349

406	Global climatic drivers of leaf size. <i>Science</i> , <b>2017</b> , 357, 917-921	33.3	334
405	Sensitivity of leaf size and shape to climate: global patterns and paleoclimatic applications. <i>New Phytologist</i> , <b>2011</b> , 190, 724-39	9.8	334
404	Physiological and physicochemical controls on foliar volatile organic compound emissions. <i>Trends in Plant Science</i> , <b>2004</b> , 9, 180-6	13.1	317
403	An analysis of light effects on foliar morphology, physiology, and light interception in temperate deciduous woody species of contrasting shade tolerance. <i>Tree Physiology</i> , <b>1998</b> , 18, 681-696	4.2	278
402	Importance of leaf anatomy in determining mesophyll diffusion conductance to CO <sub>2</sub> across species: quantitative limitations and scaling up by models. <i>Journal of Experimental Botany</i> , <b>2013</b> , 64, 2269-81	7	277
401	Why are estimates of global terrestrial isoprene emissions so similar (and why is this not so for monoterpenes)?. <i>Atmospheric Chemistry and Physics</i> , <b>2008</b> , 8, 4605-4620	6.8	265
400	Plant functional trait change across a warming tundra biome. <i>Nature</i> , <b>2018</b> , 562, 57-62	50.4	264
399	A roadmap for improving the representation of photosynthesis in Earth system models. <i>New Phytologist</i> , <b>2017</b> , 213, 22-42	9.8	245
398	Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. <i>New Phytologist</i> , <b>2015</b> , 206, 614-36	9.8	244
397	Process-based estimates of terrestrial ecosystem isoprene emissions: incorporating the effects of a direct CO <sub>2</sub> -isoprene interaction. <i>Atmospheric Chemistry and Physics</i> , <b>2007</b> , 7, 31-53	6.8	237
396	Mild versus severe stress and BVOCs: thresholds, priming and consequences. <i>Trends in Plant Science</i> , <b>2010</b> , 15, 145-53	13.1	229
395	A worldwide analysis of within-canopy variations in leaf structural, chemical and physiological traits across plant functional types. <i>New Phytologist</i> , <b>2015</b> , 205, 973-993	9.8	228
394	Role of mesophyll diffusion conductance in constraining potential photosynthetic productivity in the field. <i>Journal of Experimental Botany</i> , <b>2009</b> , 60, 2249-70	7	223
393	Physiological and structural tradeoffs underlying the leaf economics spectrum. <i>New Phytologist</i> , <b>2017</b> , 214, 1447-1463	9.8	222
392	Nutrient limitation reduces land carbon uptake in simulations with a model of combined carbon, nitrogen and phosphorus cycling. <i>Biogeosciences</i> , <b>2012</b> , 9, 3547-3569	4.6	219
391	Diffusional conductances to CO <sub>2</sub> as a target for increasing photosynthesis and photosynthetic water-use efficiency. <i>Photosynthesis Research</i> , <b>2013</b> , 117, 45-59	3.7	218
390	Which is a better predictor of plant traits: temperature or precipitation?. <i>Journal of Vegetation Science</i> , <b>2014</b> , 25, 1167-1180	3.1	217
389	Leaf internal diffusion conductance limits photosynthesis more strongly in older leaves of Mediterranean evergreen broad-leaved species. <i>Plant, Cell and Environment</i> , <b>2005</b> , 28, 1552-1566	8.4	210

388	Global trait-environment relationships of plant communities. <i>Nature Ecology and Evolution</i> , <b>2018</b> , 2, 1906-1917	2.09	209
387	A model of isoprene emission based on energetic requirements for isoprene synthesis and leaf photosynthetic properties for Liquidambar and Quercus. <i>Plant, Cell and Environment</i> , <b>1999</b> , 22, 1319-1335	8.4	205
386	Role of foliar nitrogen in light harvesting and shade tolerance of four temperate deciduous woody species. <i>Functional Ecology</i> , <b>1997</b> , 11, 518-531	5.6	181
385	Global effects of soil and climate on leaf photosynthetic traits and rates. <i>Global Ecology and Biogeography</i> , <b>2015</b> , 24, 706-717	6.1	179
384	Functional traits of urban trees: air pollution mitigation potential. <i>Frontiers in Ecology and the Environment</i> , <b>2016</b> , 14, 543-550	5.5	177
383	Stomatal conductance alone does not explain the decline in foliar photosynthetic rates with increasing tree age and size in <i>Picea abies</i> and <i>Pinus sylvestris</i> . <i>Tree Physiology</i> , <b>2002</b> , 22, 515-35	4.2	174
382	Within-canopy variation in the rate of development of photosynthetic capacity is proportional to integrated quantum flux density in temperate deciduous trees. <i>Plant, Cell and Environment</i> , <b>2004</b> , 27, 293-313	8.4	165
381	Developmental changes in mesophyll diffusion conductance and photosynthetic capacity under different light and water availabilities in <i>Populus tremula</i> : how structure constrains function. <i>Plant, Cell and Environment</i> , <b>2012</b> , 35, 839-56	8.4	161
380	Quantitative patterns between plant volatile emissions induced by biotic stresses and the degree of damage. <i>Frontiers in Plant Science</i> , <b>2013</b> , 4, 262	6.2	159
379	Do we underestimate the importance of leaf size in plant economics? Disproportional scaling of support costs within the spectrum of leaf physiognomy. <i>Annals of Botany</i> , <b>2007</b> , 100, 283-303	4.1	154
378	Photosynthetic acclimation to simultaneous and interacting environmental stresses along natural light gradients: optimality and constraints. <i>Plant Biology</i> , <b>2004</b> , 6, 254-68	3.7	154
377	Ozone induced emissions of biogenic VOC from tobacco: relationships between ozone uptake and emission of LOX products. <i>Plant, Cell and Environment</i> , <b>2005</b> , 28, 1334-1343	8.4	151
376	"Diminishing returns" in the scaling of functional leaf traits across and within species groups. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 8891-6	11.5	143
375	Simultaneous growth and emission measurements demonstrate an interactive control of methanol release by leaf expansion and stomata. <i>Journal of Experimental Botany</i> , <b>2007</b> , 58, 1783-93	7	142
374	Is there a species spectrum within the world-wide leaf economics spectrum? Major variations in leaf functional traits in the Mediterranean sclerophyll <i>Quercus ilex</i> . <i>New Phytologist</i> , <b>2015</b> , 205, 79-96	9.8	141
373	Leaf size modifies support biomass distribution among stems, petioles and mid-ribs in temperate plants. <i>New Phytologist</i> , <b>2006</b> , 171, 91-104	9.8	141
372	A meta-analysis of plant responses to light intensity for 70 traits ranging from molecules to whole plant performance. <i>New Phytologist</i> , <b>2019</b> , 223, 1073-1105	9.8	137
371	The emission factor of volatile isoprenoids: stress, acclimation, and developmental responses. <i>Biogeosciences</i> , <b>2010</b> , 7, 2203-2223	4.6	135

370	Non-structural carbohydrates in woody plants compared among laboratories. <i>Tree Physiology</i> , <b>2015</b> , 35, 1146-65	4.2	133
369	Complex adjustments of photosynthetic potentials and internal diffusion conductance to current and previous light availabilities and leaf age in Mediterranean evergreen species <i>Quercus ilex</i> . <i>Plant, Cell and Environment</i> , <b>2006</b> , 29, 1159-78	8.4	133
368	Mesophyll conductance to CO <sub>2</sub> and Rubisco as targets for improving intrinsic water use efficiency in C3 plants. <i>Plant, Cell and Environment</i> , <b>2016</b> , 39, 965-82	8.4	130
367	Faster returns on leaf economics and different biogeochemical niche in invasive compared with native plant species. <i>Global Change Biology</i> , <b>2009</b> , 16, 2171-2185	11.4	127
366	Genome sequencing and population genomic analyses provide insights into the adaptive landscape of silver birch. <i>Nature Genetics</i> , <b>2017</b> , 49, 904-912	36.3	123
365	Estimations of isoprenoid emission capacity from enclosure studies: measurements, data processing, quality and standardized measurement protocols. <i>Biogeosciences</i> , <b>2011</b> , 8, 2209-2246	4.6	123
364	The controversy over traits conferring shade-tolerance in trees: ontogenetic changes revisited. <i>Journal of Ecology</i> , <b>2006</b> , 94, 464-470	6	123
363	Controls on the emission of plant volatiles through stomata: Differential sensitivity of emission rates to stomatal closure explained. <i>Journal of Geophysical Research</i> , <b>2003</b> , 108,		123
362	Leaf weight per area and leaf size of 85 Estonian woody species in relation to shade tolerance and light availability. <i>Forest Ecology and Management</i> , <b>1994</b> , 70, 1-10	3.9	123
361	The photosynthetic capacity in 35 ferns and fern allies: mesophyll CO <sub>2</sub> diffusion as a key trait. <i>New Phytologist</i> , <b>2016</b> , 209, 1576-90	9.8	123
360	A method to construct dose-response curves for a wide range of environmental factors and plant traits by means of a meta-analysis of phenotypic data. <i>Journal of Experimental Botany</i> , <b>2010</b> , 61, 2043-55	7	121
359	Leaf economics and hydraulic traits are decoupled in five species-rich tropical-subtropical forests. <i>Ecology Letters</i> , <b>2015</b> , 18, 899-906	10	119
358	Importance of mesophyll diffusion conductance in estimation of plant photosynthesis in the field. <i>Journal of Experimental Botany</i> , <b>2009</b> , 60, 2271-82	7	119
357	Anatomical basis of variation in mesophyll resistance in eastern Australian sclerophylls: news of a long and winding path. <i>Journal of Experimental Botany</i> , <b>2012</b> , 63, 5105-19	7	119
356	Shedding light on shade: ecological perspectives of understorey plant life. <i>Plant Ecology and Diversity</i> , <b>2016</b> , 9, 237-251	2.2	118
355	Emissions of green leaf volatiles and terpenoids from <i>Solanum lycopersicum</i> are quantitatively related to the severity of cold and heat shock treatments. <i>Journal of Plant Physiology</i> , <b>2012</b> , 169, 664-72	3.6	117
354	The leaf-level emission factor of volatile isoprenoids: caveats, model algorithms, response shapes and scaling. <i>Biogeosciences</i> , <b>2010</b> , 7, 1809-1832	4.6	117
353	Are species shade and drought tolerance reflected in leaf-level structural and functional differentiation in Northern Hemisphere temperate woody flora?. <i>New Phytologist</i> , <b>2009</b> , 184, 257-274	9.8	117

352	Volatile isoprenoid emissions from plastid to planet. <i>New Phytologist</i> , <b>2013</b> , 197, 49-57	9.8	116
351	Plant volatiles in polluted atmospheres: stress responses and signal degradation. <i>Plant, Cell and Environment</i> , <b>2014</b> , 37, 1892-904	8.4	114
350	Stoichiometry of foliar carbon constituents varies along light gradients in temperate woody canopies: implications for foliage morphological plasticity. <i>Tree Physiology</i> , <b>1998</b> , 18, 467-479	4.2	111
349	Modeling volatile isoprenoid emissions--a story with split ends. <i>Plant Biology</i> , <b>2008</b> , 10, 8-28	3.7	110
348	Structural determinants of leaf light-harvesting capacity and photosynthetic potentials <b>2006</b> , 385-419		110
347	Site fertility and the morphological and photosynthetic acclimation of <i>Pinus sylvestris</i> needles to light. <i>Tree Physiology</i> , <b>2001</b> , 21, 1231-44	4.2	110
346	The fate of carbon in a mature forest under carbon dioxide enrichment. <i>Nature</i> , <b>2020</b> , 580, 227-231	50.4	109
345	Structural and physiological plasticity in response to light and nutrients in five temperate deciduous woody species of contrasting shade tolerance. <i>Functional Ecology</i> , <b>2007</b> , 21, 61	5.6	108
344	When it is too hot for photosynthesis: heat-induced instability of photosynthesis in relation to respiratory burst, cell permeability changes and H <sub>2</sub> O <sub>2</sub> formation. <i>Plant, Cell and Environment</i> , <b>2011</b> , 34, 113-26	8.4	106
343	Major diffusion leaks of clamp-on leaf cuvettes still unaccounted: how erroneous are the estimates of Farquhar et al. model parameters?. <i>Plant, Cell and Environment</i> , <b>2007</b> , 30, 1006-22	8.4	105
342	Leaf mesophyll diffusion conductance in 35 Australian sclerophylls covering a broad range of foliage structural and physiological variation. <i>Journal of Experimental Botany</i> , <b>2009</b> , 60, 2433-49	7	104
341	Leaf-level phenotypic variability and plasticity of invasive <i>Rhododendron ponticum</i> and non-invasive <i>Ilex aquifolium</i> co-occurring at two contrasting European sites. <i>Plant, Cell and Environment</i> , <b>2003</b> , 26, 941-956	8.4	104
340	Mapping local and global variability in plant trait distributions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, E10937-E10946	11.5	103
339	The capacity for thermal protection of photosynthetic electron transport varies for different monoterpenes in <i>Quercus ilex</i> . <i>Plant Physiology</i> , <b>2005</b> , 139, 485-96	6.6	101
338	Gardening and urban landscaping: significant players in global change. <i>Trends in Plant Science</i> , <b>2008</b> , 13, 60-5	13.1	100
337	Leaf shape and venation pattern alter the support investments within leaf lamina in temperate species: a neglected source of leaf physiological differentiation?. <i>Functional Ecology</i> , <b>2007</b> , 21, 28	5.6	100
336	A model coupling foliar monoterpene emissions to leaf photosynthetic characteristics in Mediterranean evergreen <i>Quercus</i> species. <i>New Phytologist</i> , <b>2002</b> , 153, 257-275	9.8	100
335	sPlot A new tool for global vegetation analyses. <i>Journal of Vegetation Science</i> , <b>2019</b> , 30, 161-186	3.1	96

334	Urban plant physiology: adaptation-mitigation strategies under permanent stress. <i>Trends in Plant Science</i> , <b>2015</b> , 20, 72-5	13.1	96
333	Modeling the isoprene emission rate from leaves. <i>New Phytologist</i> , <b>2012</b> , 195, 541-559	9.8	96
332	Temperature response of isoprene emission in vivo reflects a combined effect of substrate limitations and isoprene synthase activity: a kinetic analysis. <i>Plant Physiology</i> , <b>2010</b> , 154, 1558-70	6.6	96
331	Fossil leaf economics quantified: calibration, Eocene case study, and implications. <i>Paleobiology</i> , <b>2007</b> , 33, 574-589	2.6	96
330	Evergreens favored by higher responsiveness to increased CO <sub>2</sub> . <i>Trends in Ecology and Evolution</i> , <b>2011</b> , 26, 136-42	10.9	94
329	A test of the 'one-point method' for estimating maximum carboxylation capacity from field-measured, light-saturated photosynthesis. <i>New Phytologist</i> , <b>2016</b> , 210, 1130-44	9.8	92
328	Metabolic flux analysis of plastidic isoprenoid biosynthesis in poplar leaves emitting and nonemitting isoprene. <i>Plant Physiology</i> , <b>2014</b> , 165, 37-51	6.6	91
327	Volatile emissions from <i>Alnus glutinosa</i> induced by herbivory are quantitatively related to the extent of damage. <i>Journal of Chemical Ecology</i> , <b>2011</b> , 37, 18-28	2.7	89
326	Variability in Leaf Morphology and Chemical Composition as a Function of Canopy Light Environment in Coexisting Deciduous Trees. <i>International Journal of Plant Sciences</i> , <b>1999</b> , 160, 837-848	2.6	89
325	Variations in leaf morphometry and nitrogen concentration in <i>Betula pendula</i> Roth., <i>Corylus avellana</i> L. and <i>Lonicera xylosteum</i> L. <i>Tree Physiology</i> , <b>1993</b> , 12, 311-8	4.2	88
324	Functional distinctiveness of major plant lineages. <i>Journal of Ecology</i> , <b>2014</b> , 102, 345-356	6	87
323	Stomatal constraints may affect emission of oxygenated monoterpenoids from the foliage of <i>Pinus pinea</i> . <i>Plant Physiology</i> , <b>2002</b> , 130, 1371-85	6.6	85
322	Volatile organic compound emissions from under interacting drought and herbivory stresses. <i>Environmental and Experimental Botany</i> , <b>2014</b> , 100, 55-63	5.9	84
321	Flooding induced emissions of volatile signalling compounds in three tree species with differing waterlogging tolerance. <i>Plant, Cell and Environment</i> , <b>2010</b> , 33, 1582-94	8.4	84
320	Co-limitation of plant primary productivity by nitrogen and phosphorus in a species-rich wooded meadow on calcareous soils. <i>Acta Oecologica</i> , <b>2005</b> , 28, 345-356	1.7	84
319	Global leaf trait estimates biased due to plasticity in the shade. <i>Nature Plants</i> , <b>2016</b> , 3, 16201	11.5	83
318	Leaf anatomical properties in relation to differences in mesophyll conductance to CO <sub>2</sub> and photosynthesis in two related Mediterranean <i>Abies</i> species. <i>Plant, Cell and Environment</i> , <b>2012</b> , 35, 2121-8	8.4	83
317	Acclimation to high irradiance in temperate deciduous trees in the field: changes in xanthophyll cycle pool size and in photosynthetic capacity along a canopy light gradient. <i>Plant, Cell and Environment</i> , <b>1998</b> , 21, 1205-1218	8.4	82



316	Monoterpene emissions in relation to foliar photosynthetic and structural variables in Mediterranean evergreen <i>Quercus</i> species. <i>New Phytologist</i> , <b>2002</b> , 153, 243-256	9.8	81
315	Global photosynthetic capacity is optimized to the environment. <i>Ecology Letters</i> , <b>2019</b> , 22, 506-517	10	80
314	Bidirectional exchange of biogenic volatiles with vegetation: emission sources, reactions, breakdown and deposition. <i>Plant, Cell and Environment</i> , <b>2014</b> , 37, 1790-809	8.4	79
313	Improved representation of plant functional types and physiology in the Joint UK Land Environment Simulator (JULES v4.2) using plant trait information. <i>Geoscientific Model Development</i> , <b>2016</b> , 9, 2415-2440	6.3	79
312	Optimization of foliage photosynthetic capacity in tree canopies: towards identifying missing constraints. <i>Tree Physiology</i> , <b>2012</b> , 32, 505-9	4.2	77
311	Multi-Substrate Terpene Synthases: Their Occurrence and Physiological Significance. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 1019	6.2	77
310	Evidence that light, carbon dioxide, and oxygen dependencies of leaf isoprene emission are driven by energy status in hybrid aspen. <i>Plant Physiology</i> , <b>2009</b> , 151, 448-60	6.6	76
309	Leaf structure vs. nutrient relationships vary with soil conditions in temperate shrubs and trees. <i>Acta Oecologica</i> , <b>2003</b> , 24, 209-219	1.7	76
308	Postillumination isoprene emission: in vivo measurements of dimethylallyldiphosphate pool size and isoprene synthase kinetics in aspen leaves. <i>Plant Physiology</i> , <b>2009</b> , 149, 1609-18	6.6	75
307	Temperature dependencies of Henry's law constants and octanol/water partition coefficients for key plant volatile monoterpenoids. <i>Chemosphere</i> , <b>2005</b> , 61, 1390-400	8.4	75
306	Do the capacity and kinetics for modification of xanthophyll cycle pool size depend on growth irradiance in temperate trees?. <i>Plant, Cell and Environment</i> , <b>2003</b> , 26, 1787-1801	8.4	75
305	Species differences in timing of leaf fall and foliage chemistry modify nutrient resorption efficiency in deciduous temperate forest stands. <i>Tree Physiology</i> , <b>2005</b> , 25, 1001-14	4.2	74
304	Cell-level anatomical characteristics explain high mesophyll conductance and photosynthetic capacity in sclerophyllous Mediterranean oaks. <i>New Phytologist</i> , <b>2017</b> , 214, 585-596	9.8	73
303	Shifts in tree functional composition amplify the response of forest biomass to climate. <i>Nature</i> , <b>2018</b> , 556, 99-102	50.4	73
302	Process based inventory of isoprenoid emissions from European forests: model comparisons, current knowledge and uncertainties. <i>Atmospheric Chemistry and Physics</i> , <b>2009</b> , 9, 4053-4076	6.8	73
301	Controls on the emission of plant volatiles through stomata: A sensitivity analysis. <i>Journal of Geophysical Research</i> , <b>2003</b> , 108,		73
300	Shape of leaf photosynthetic electron transport versus temperature response curve is not constant along canopy light gradients in temperate deciduous trees. <i>Plant, Cell and Environment</i> , <b>1999</b> , 22, 1497-1513	8.4	73
299	Leaf rust induced volatile organic compounds signalling in willow during the infection. <i>Planta</i> , <b>2010</b> , 232, 235-43	4.7	72



298	Environmental controls over methanol emission from leaves. <i>Biogeosciences</i> , <b>2007</b> , 4, 1083-1099	4.6	72
297	Interactive effects of nitrogen and phosphorus on the acclimation potential of foliage photosynthetic properties of cork oak, <i>Quercus suber</i> , to elevated atmospheric CO <sub>2</sub> concentrations. <i>Global Change Biology</i> , <b>1999</b> , 5, 455-470	11.4	72
296	Extremely thick cell walls and low mesophyll conductance: welcome to the world of ancient living!. <i>Journal of Experimental Botany</i> , <b>2017</b> , 68, 1639-1653	7	69
295	Petiole mechanics, leaf inclination, morphology, and investment in support in relation to light availability in the canopy of <i>Liriodendron tulipifera</i> . <i>Oecologia</i> , <b>2002</b> , 132, 21-33	2.9	68
294	Distribution of leaf photosynthetic properties in tree canopies: comparison of species with different shade tolerance. <i>Functional Ecology</i> , <b>1998</b> , 12, 472-479	5.6	67
293	Induced BVOCs: how to bug our models?. <i>Trends in Plant Science</i> , <b>2010</b> , 15, 118-25	13.1	65
292	Heat sensitivity of photosynthetic electron transport varies during the day due to changes in sugars and osmotic potential. <i>Plant, Cell and Environment</i> , <b>2006</b> , 29, 212-28	8.4	65
291	Packing the Photosynthetic Machinery: From Leaf to Canopy. <i>Advances in Photosynthesis and Respiration</i> , <b>2009</b> , 363-399	1.7	65
290	A model of plant isoprene emission based on available reducing power captures responses to atmospheric CO <sub>2</sub> . <i>New Phytologist</i> , <b>2014</b> , 203, 125-39	9.8	64
289	Photosynthetic responses to stress in Mediterranean evergreens: Mechanisms and models. <i>Environmental and Experimental Botany</i> , <b>2014</b> , 103, 24-41	5.9	63
288	Petiole length and biomass investment in support modify light interception efficiency in dense poplar plantations. <i>Tree Physiology</i> , <b>2004</b> , 24, 141-54	4.2	63
287	Changes in floral bouquets from compound-specific responses to increasing temperatures. <i>Global Change Biology</i> , <b>2014</b> , 20, 3660-9	11.4	61
286	Extracting and trapping biogenic volatile organic compounds stored in plant species. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2011</b> , 30, 978-989	14.6	60
285	Leaf to Landscape. <i>Ecological Studies</i> , <b>2004</b> , 42-85	1.1	60
284	Growth of Young Trees of <i>Acer platanoides</i> and <i>Quercus robur</i> Along a Gap- Understory Continuum: Interrelationships between Allometry, Biomass Partitioning, Nitrogen, and Shade Tolerance. <i>International Journal of Plant Sciences</i> , <b>1998</b> , 159, 318-330	2.6	58
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282	Nitrogen-rich organic soils under warm well-drained conditions are global nitrous oxide emission hotspots. <i>Nature Communications</i> , <b>2018</b> , 9, 1135	17.4	56
281	Temperature responses of the Rubisco maximum carboxylase activity across domains of life: phylogenetic signals, trade-offs, and importance for carbon gain. <i>Photosynthesis Research</i> , <b>2015</b> , 123, 183-201	3.7	55

280	Environmental and developmental controls on specific leaf area are little modified by leaf allometry. <i>Functional Ecology</i> , <b>2008</b> , 22, 565-576	5.6	55
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276	Influence of nine antibiotics on key secondary metabolites and physiological characteristics in <i>Triticum aestivum</i> : leaf volatiles as a promising new tool to assess toxicity. <i>Ecotoxicology and Environmental Safety</i> , <b>2013</b> , 87, 70-9	7	52
275	Leaf hydraulic conductance in relation to anatomical and functional traits during <i>Populus tremula</i> leaf ontogeny. <i>Tree Physiology</i> , <b>2005</b> , 25, 1409-18	4.2	52
274	A fully integrated isoprenoid emissions model coupling emissions to photosynthetic characteristics. <i>Plant, Cell and Environment</i> , <b>2014</b> , 37, 1965-80	8.4	51
273	Divergent assemblage patterns and driving forces for bacterial and fungal communities along a glacier forefield chronosequence. <i>Soil Biology and Biochemistry</i> , <b>2018</b> , 118, 207-216	7.5	50
272	Elevated [CO <sub>2</sub> ] magnifies isoprene emissions under heat and improves thermal resistance in hybrid aspen. <i>Journal of Experimental Botany</i> , <b>2013</b> , 64, 5509-23	7	50
271	Total foliar area and average leaf age may be more strongly associated with branching frequency than with leaf longevity in temperate conifers. <i>New Phytologist</i> , <b>2003</b> , 158, 75-89	9.8	50
270	Leaf age dependent changes in within-canopy variation in leaf functional traits: a meta-analysis. <i>Journal of Plant Research</i> , <b>2016</b> , 129, 313-38	2.6	50
269	Emissions of monoterpenes linalool and ocimene respond differently to environmental changes due to differences in physico-chemical characteristics. <i>Atmospheric Environment</i> , <b>2006</b> , 40, 4649-4662	5.3	49
268	Enhanced isoprene emission capacity and altered light responsiveness in aspen grown under elevated atmospheric CO <sub>2</sub> concentration. <i>Global Change Biology</i> , <b>2012</b> , 18, 3423-3440	11.4	48
267	Biomass investment in leaf lamina versus lamina support in relation to growth irradiance and leaf size in temperate deciduous trees. <i>Tree Physiology</i> , <b>1999</b> , 19, 349-358	4.2	48
266	Leaf-Level Models of Constitutive and Stress-Driven Volatile Organic Compound Emissions. <i>Tree Physiology</i> , <b>2013</b> , 315-355		47
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264	A compendium of temperature responses of Rubisco kinetic traits: variability among and within photosynthetic groups and impacts on photosynthesis modeling. <i>Journal of Experimental Botany</i> , <b>2016</b> , 67, 5067-91	7	47
263	Invasive species' leaf traits and dissimilarity from natives shape their impact on nitrogen cycling: a meta-analysis. <i>New Phytologist</i> , <b>2017</b> , 213, 128-139	9.8	46

262	Photosynthetic responses of cottonwood seedlings grown in glacial through future atmospheric [CO <sub>2</sub> ] vary with phosphorus supply. <i>Tree Physiology</i> , <b>2010</b> , 30, 1361-72	4.2	46
261	Roles of climate and functional traits in controlling toothed vs. untoothed leaf margins. <i>American Journal of Botany</i> , <b>2012</b> , 99, 915-22	2.7	46
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259	Plasticity in mesophyll volume fraction modulates light-acclimation in needle photosynthesis in two pines. <i>Tree Physiology</i> , <b>2007</b> , 27, 1137-51	4.2	46
258	Leaf structural and photosynthetic characteristics, and biomass allocation to foliage in relation to foliar nitrogen content and tree size in three <i>Betula</i> species. <i>Annals of Botany</i> , <b>2002</b> , 89, 191-204	4.1	46
257	Plant-plant interactions and N fertilization shape soil bacterial and fungal communities. <i>Soil Biology and Biochemistry</i> , <b>2019</b> , 128, 127-138	7.5	46
256	Drought acclimation of two deciduous tree species of different layers in a temperate forest canopy. <i>Trees - Structure and Function</i> , <b>2004</b> , 18, 93-101	2.6	45
255	Spatial and age-dependent modifications of photosynthetic capacity in four Mediterranean oak species. <i>Functional Plant Biology</i> , <b>2004</b> , 31, 1179-1193	2.7	45
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252	Three-dimensional lamina architecture alters light-harvesting efficiency in <i>Fagus</i> : a leaf-scale analysis. <i>Tree Physiology</i> , <b>2003</b> , 23, 577-89	4.2	44
251	Apparent Controls on Leaf Conductance by Soil Water Availability and via Light-Acclimation of Foliage Structural and Physiological Properties in a Mixed Deciduous, Temperate Forest. <i>International Journal of Plant Sciences</i> , <b>1999</b> , 160, 707-721	2.6	44
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246	Acclimation of antioxidant pools to the light environment in a natural forest canopy. <i>New Phytologist</i> , <b>2004</b> , 163, 87-97	9.8	42
245	Uncovering the hidden facets of drought stress: secondary metabolites make the difference. <i>Tree Physiology</i> , <b>2016</b> , 36, 129-32	4.2	41

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240	Competition between isoprene emission and pigment synthesis during leaf development in aspen. <i>Plant, Cell and Environment</i> , <b>2014</b> , 37, 724-41	8.4	40
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154	Ozone-triggered surface uptake and stress volatile emissions in <i>Nicotiana tabacum</i> 'Wisconsin'. <i>Journal of Experimental Botany</i> , <b>2018</b> , 69, 681-697	7	18
153	Alternative Carbon Sources for Isoprene Emission. <i>Trends in Plant Science</i> , <b>2018</b> , 23, 1081-1101	13.1	18
152	Foliage inoculation by <i>Burkholderia vietnamiensis</i> CBMB40 antagonizes methyl jasmonate-mediated stress in <i>Eucalyptus grandis</i> . <i>Journal of Plant Physiology</i> , <b>2019</b> , 242, 153032	3.6	17
151	Potential improvement of photosynthetic CO assimilation in crops by exploiting the natural variation in the temperature response of Rubisco catalytic traits. <i>Current Opinion in Plant Biology</i> , <b>2019</b> , 49, 60-67	9.9	17
150	Changes of secondary metabolites in <i>Pinus sylvestris</i> L. needles under increasing soil water deficit. <i>Annals of Forest Science</i> , <b>2017</b> , 74, 1	3.1	16
149	A novel approach for real-time monitoring of leaf wounding responses demonstrates unprecedentedly fast and high emissions of volatiles from cut leaves. <i>Plant Science</i> , <b>2019</b> , 283, 256-265	5.3	16
148	Canopy Photosynthesis: From Basics to Applications. <i>Advances in Photosynthesis and Respiration</i> , <b>2016</b> ,	1.7	16
147	Interacting environmental and chemical stresses under global change in temperate aquatic ecosystems: stress responses, adaptation, and scaling. <i>Regional Environmental Change</i> , <b>2017</b> , 17, 2061-2077	4.3	16
146	Size-Dependent Variation in Shoot Light-Harvesting Efficiency in Shade-Intolerant Conifers. <i>International Journal of Plant Sciences</i> , <b>2006</b> , 167, 19-32	2.6	16
145	Evidence That Isoprene Emission Is Not Limited by Cytosolic Metabolites. Exogenous Malate Does Not Invert the Reverse Sensitivity of Isoprene Emission to High [CO]. <i>Plant Physiology</i> , <b>2018</b> , 176, 1573-1586	6.6	16
144	Temperature dependencies of Henry's law constants for different plant sesquiterpenes. <i>Chemosphere</i> , <b>2015</b> , 138, 751-7	8.4	15
143	Fighting Pathogens in the Era of Climate Change: A Conceptual Approach. <i>Pathogens</i> , <b>2020</b> , 9,	4.5	15
142	Microstructural and physiological responses to cadmium stress under different nitrogen levels in <i>Populus cathayana</i> females and males. <i>Tree Physiology</i> , <b>2020</b> , 40, 30-45	4.2	14
141	Large within-population genetic diversity of the widespread conifer <i>Pinus sylvestris</i> at its soil fertility limit characterized by nuclear and chloroplast microsatellite markers. <i>European Journal of Forest Research</i> , <b>2016</b> , 135, 161-177	2.7	14
140	Responses of Aspen Leaves to Heatflecks: Both Damaging and Non-Damaging Rapid Temperature Excursions Reduce Photosynthesis. <i>Plants</i> , <b>2019</b> , 8,	4.5	14
139	Foliar mono- and sesquiterpene contents in relation to leaf economic spectrum in native and alien species in Oahu (Hawai'i). <i>Journal of Chemical Ecology</i> , <b>2010</b> , 36, 210-26	2.7	14
138	Key plant structural and allocation traits depend on relative age in the perennial herb <i>Pimpinella saxifraga</i> . <i>Annals of Botany</i> , <b>2005</b> , 96, 323-30	4.1	14
137	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

136	Petiole gall aphid () infestation of leaves alters foliage photosynthetic characteristics and leads to enhanced emissions of both constitutive and stress-induced volatiles. <i>Trees - Structure and Function</i> , <b>2019</b> , 33, 37-51	2.6	14
135	Nutrient stoichiometry and land use rather than species richness determine plant functional diversity. <i>Ecology and Evolution</i> , <b>2018</b> , 8, 601-616	2.8	14
134	Lethal heat stress-dependent volatile emissions from tobacco leaves: what happens beyond the thermal edge?. <i>Journal of Experimental Botany</i> , <b>2019</b> , 70, 5017-5030	7	13
133	Elevated temperature differently affects growth, photosynthetic capacity, nutrient absorption and leaf ultrastructure of <i>Abies faxoniana</i> and <i>Picea purpurea</i> under intra- and interspecific competition. <i>Tree Physiology</i> , <b>2019</b> , 39, 1342-1357	4.2	13
132	Global gradients in intraspecific variation in vegetative and floral traits are partially associated with climate and species richness. <i>Global Ecology and Biogeography</i> , <b>2020</b> , 29, 992-1007	6.1	13
131	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
130	SMEAR Estonia: Perspectives of a large-scale forest ecosystem atmosphere research infrastructure. <i>Forestry Studies</i> , <b>2015</b> , 63, 56-84	0.4	13
129	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
128	Are stomata in ferns and allies sluggish? Stomatal responses to CO <sub>2</sub> , humidity and light and their scaling with size and density. <i>New Phytologist</i> , <b>2020</b> , 225, 183-195	9.8	13
127	When leaves go over the thermal edge. <i>Plant, Cell and Environment</i> , <b>2018</b> , 41, 1247-1250	8.4	12
126	Regulation of Floral Terpenoid Emission and Biosynthesis in Sweet Basil (). <i>Journal of Plant Growth Regulation</i> , <b>2016</b> , 35, 921-935	4.7	12
125	Integration of C <sub>3</sub> and C <sub>4</sub> Metabolism in Trees. <i>International Journal of Molecular Sciences</i> , <b>2017</b> , 18,	6.3	12
124	Energy requirement for foliage construction depends on tree size in. <i>Trees - Structure and Function</i> , <b>1997</b> , 11, 420	2.6	12
123	Influence of <i>Brevibacterium linens</i> RS16 on foliage photosynthetic and volatile emission characteristics upon heat stress in <i>Eucalyptus grandis</i> . <i>Science of the Total Environment</i> , <b>2020</b> , 700, 134453	10.2	12
122	Fading of wound-induced volatile release during <i>Populus tremula</i> leaf expansion. <i>Journal of Plant Research</i> , <b>2017</b> , 130, 157-165	2.6	11
121	<i>Methylobacterium oryzae</i> CBMB20 influences photosynthetic traits, volatile emission and ethylene metabolism in <i>Oryza sativa</i> genotypes grown in salt stress conditions. <i>Planta</i> , <b>2019</b> , 249, 1903-1919	4.7	11
120	Temporal regulation of terpene synthase gene expression in leaves upon ozone and wounding stresses: relationships with stomatal ozone uptake and emission responses. <i>Environmental and Experimental Botany</i> , <b>2018</b> , 155, 552-565	5.9	11
119	Rootstock determines the drought resistance of poplar grafting combinations. <i>Tree Physiology</i> , <b>2019</b> , 39, 1855-1866	4.2	11

118	Effects of phosphorus availability on later stages of primary succession in Gongga Mountain glacier retreat area. <i>Environmental and Experimental Botany</i> , <b>2017</b> , 141, 103-112	5.9	11
117	Reproductive investments driven by sex and altitude in sympatric <i>Populus</i> and <i>Salix</i> trees. <i>Tree Physiology</i> , <b>2017</b> , 37, 1503-1514	4.2	11
116	Three Key Sub-leaf Modules and the Diversity of Leaf Designs. <i>Frontiers in Plant Science</i> , <b>2017</b> , 8, 1542	6.2	11
115	Optimum temperature for floral terpene emissions tracks the mean temperature of the flowering season. <i>Functional Plant Biology</i> , <b>2015</b> , 42, 851-857	2.7	11
114	Measures of light in studies on light-driven plant plasticity in artificial environments. <i>Frontiers in Plant Science</i> , <b>2012</b> , 3, 156	6.2	11
113	Light-acclimation of cladode photosynthetic potentials in <i>Casuarina glauca</i> : trade-offs between physiological and structural investments. <i>Functional Plant Biology</i> , <b>2005</b> , 32, 571-582	2.7	11
112	A reporting format for leaf-level gas exchange data and metadata. <i>Ecological Informatics</i> , <b>2021</b> , 61, 101232	4.2	11
111	Root traits explain plant species distributions along climatic gradients yet challenge the nature of ecological trade-offs. <i>Nature Ecology and Evolution</i> , <b>2021</b> , 5, 1123-1134	12.3	11
110	Induction of stress volatiles and changes in essential oil content and composition upon microwave exposure in the aromatic plant <i>Ocimum basilicum</i> . <i>Science of the Total Environment</i> , <b>2016</b> , 569-570, 489-495	10.2	11
109	Pivotal Role of Mesophyll Conductance in Shaping Photosynthetic Performance across 67 Structurally Diverse Gymnosperm Species. <i>International Journal of Plant Sciences</i> , <b>2020</b> , 181, 116-128	2.6	11
108	Global patterns of biomass allocation in woody species with different tolerances of shade and drought: evidence for multiple strategies. <i>New Phytologist</i> , <b>2021</b> , 229, 308-322	9.8	11
107	Plant growth-form alters the relationship between foliar morphology and species shade-tolerance ranking in temperate woody taxa. <i>Plant Ecology</i> , <b>1996</b> , 124, 145-153		11
106	Canopy leaf area index at its higher end: dissection of structural controls from leaf to canopy scales in bryophytes. <i>New Phytologist</i> , <b>2019</b> , 223, 118-133	9.8	10
105	Cohort-specific tuning of foliage physiology to interacting stresses in evergreens. <i>Tree Physiology</i> , <b>2014</b> , 34, 1301-4	4.2	10
104	Lower P contents and more widespread terpene presence in old Bornean than in young Hawaiian tropical plant species guilds. <i>Ecosphere</i> , <b>2011</b> , 2, art45	3.1	10
103	Journal of Experimental Botany. Preface. <i>Journal of Experimental Botany</i> , <b>2009</b> , 60, 2215-6	7	10
102	Circadian control of global isoprene emissions. <i>Nature Geoscience</i> , <b>2012</b> , 5, 435-435	18.3	10
101	Modeling the temporal dynamics of monoterpene emission by isotopic labeling in <i>Quercus ilex</i> leaves. <i>Atmospheric Environment</i> , <b>2010</b> , 44, 392-399	5.3	10

100	Leaf Biomechanics and Biomass Investment in Support in Relation to Long-Term Irradiance in Fagus. <i>Plant Biology</i> , <b>2002</b> , 4, 523-534	3.7	10
99	Scaling Light Harvesting from Moss [Leaves]to Canopies. <i>Advances in Photosynthesis and Respiration</i> , <b>2014</b> , 151-171	1.7	10
98	Massive release of volatile organic compounds due to leaf midrib wounding in. <i>Plant Ecology</i> , <b>2018</b> , 219, 1021-1028	1.7	10
97	Effects of competition and phosphorus fertilization on leaf and root traits of late-successional conifers Abies fabri and Picea brachytyla. <i>Environmental and Experimental Botany</i> , <b>2019</b> , 162, 14-24	5.9	9
96	Simulating functional diversity of European natural forests along climatic gradients. <i>Journal of Biogeography</i> , <b>2020</b> , 47, 1069-1085	4.1	9
95	Methyl salicylate differently affects benzenoid and terpenoid volatile emissions in Betula pendula. <i>Tree Physiology</i> , <b>2018</b> , 38, 1513-1525	4.2	9
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92	Coping with low light under high atmospheric dryness: shade acclimation in a Mediterranean conifer (Abies pinsapo Boiss.). <i>Tree Physiology</i> , <b>2014</b> , 34, 1321-33	4.2	9
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90	Does the leaf economic spectrum hold within plant functional types? A Bayesian multivariate trait meta-analysis. <i>Ecological Applications</i> , <b>2020</b> , 30, e02064	4.9	9
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88	Ozone and Wounding Stresses Differently Alter the Temporal Variation in Formylated Phloroglucinols in Leaves. <i>Metabolites</i> , <b>2019</b> , 9,	5.6	8
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86	Toxic influence of key organic soil pollutants on the total flavonoid content in wheat leaves. <i>Water, Air, and Soil Pollution</i> , <b>2016</b> , 227, 1	2.6	8
85	Sexual competition affects biomass partitioning, carbon-nutrient balance, Cd allocation and ultrastructure of Populus cathayana females and males exposed to Cd stress. <i>Tree Physiology</i> , <b>2016</b> , 36, 1353-1368	4.2	8
84	Tree age-dependent changes in photosynthetic and respiratory CO <sub>2</sub> exchange in leaves of micropropagated diploid, triploid and hybrid aspen. <i>Tree Physiology</i> , <b>2014</b> , 34, 585-94	4.2	8
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82	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
81	Bias in leaf dry mass estimation after oven-drying isoprenoid-storing leaves. <i>Trees - Structure and Function</i> , <b>2015</b> , 29, 1805-1816	2.6	7
80	Environmental feedbacks in temperate aquatic ecosystems under global change: why do we need to consider chemical stressors?. <i>Regional Environmental Change</i> , <b>2017</b> , 17, 2079-2096	4.3	7
79	Improving modeling of the 'dark part' of canopy carbon gain. <i>Tree Physiology</i> , <b>2014</b> , 34, 557-63	4.2	7
78	Plant responses to heterogeneous environments: scaling from shoot modules and whole-plant functions to ecosystem processes. <i>Ecological Research</i> , <b>2010</b> , 25, 691-692	1.9	7
77	State-of-the-Art of BVOC Research: What Do We Have and What Have We Missed? A Synthesis. <i>Tree Physiology</i> , <b>2013</b> , 509-528		7
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73	Storage of defense metabolites in the leaves of Myrtaceae: news of the eggs in different baskets. <i>Tree Physiology</i> , <b>2018</b> , 38, 1445-1450	4.2	7
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69	Changes in photosynthetic rate and stress volatile emissions through desiccation-rehydration cycles in desiccation-tolerant epiphytic filmy ferns (Hymenophyllaceae). <i>Plant, Cell and Environment</i> , <b>2018</b> , 41, 1605-1617	8.4	6
68	What Are Plant-Released Biogenic Volatiles and How They Participate in Landscape- to Global-Level Processes? <b>2018</b> , 29-56		6
67	Leaf to Landscape. <i>Ecological Studies</i> , <b>2004</b> , 262-294	1.1	6
66	Climatic and soil factors explain the two-dimensional spectrum of global plant trait variation.. <i>Nature Ecology and Evolution</i> , <b>2021</b> ,	12.3	6
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64	Revisiting the Functional Basis of Sclerophylly Within the Leaf Economics Spectrum of Oaks: Different Roads to Rome. <i>Current Forestry Reports</i> , <b>2020</b> , 6, 260-281	8	6
63	Heat stress resistance drives coordination of emissions of suites of volatiles after severe heat stress and during recovery in five tropical crops. <i>Environmental and Experimental Botany</i> , <b>2021</b> , 184, 104373	5.9	6
62	AusTraits, a curated plant trait database for the Australian flora. <i>Scientific Data</i> , <b>2021</b> , 8, 254	8.2	6
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58	Dose-dependent methyl jasmonate effects on photosynthetic traits and volatile emissions: biphasic kinetics and stomatal regulation. <i>Plant Signaling and Behavior</i> , <b>2021</b> , 16, 1917169	2.5	5
57	The importance of sesquiterpene oxidation products for secondary organic aerosol formation in a springtime hemiboreal forest. <i>Atmospheric Chemistry and Physics</i> , <b>2021</b> , 21, 11781-11800	6.8	5
56	Asymmetric pruning reveals how organ connectivity alters the functional balance between leaves and roots of Chinese fir. <i>Journal of Experimental Botany</i> , <b>2019</b> , 70, 1941-1953	7	4
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53	Application of widely used fungicides does not necessarily affect grain yield, and incidence of Fusarium spp. and mycotoxins DON, HT-2 and T-2 in spring barley in northern climates. <i>Kvasn Průmysl</i> , <b>2020</b> , 66,	1.3	4
52	Enhanced photosynthetic nitrogen use efficiency and increased nitrogen allocation to photosynthetic machinery under cotton domestication. <i>Photosynthesis Research</i> , <b>2021</b> , 150, 239-250	3.7	4
51	Scaling BVOC Emissions from Leaf to Canopy and Landscape: How Different Are Predictions Based on Contrasting Emission Algorithms?. <i>Tree Physiology</i> , <b>2013</b> , 357-390		4
50	Nature-based solutions as tools for air phytoremediation: A review of the current knowledge and gaps. <i>Environmental Pollution</i> , <b>2021</b> , 277, 116817	9.3	4
49	Dimensions of invasiveness: Links between local abundance, geographic range size, and habitat breadth in Europe's alien and native floras. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	4
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47	Anatomical variation of mesophyll conductance due to salt stress in Populus cathayana females and males growing under different inorganic nitrogen sources. <i>Tree Physiology</i> , <b>2021</b> , 41, 1462-1478	4.2	4



46	Climatic and evolutionary contexts are required to infer plant life history strategies from functional traits at a global scale. <i>Ecology Letters</i> , <b>2021</b> , 24, 970-983	10	4
45	"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
44	Small and slow is safe: On the drought tolerance of tropical tree species.. <i>Global Change Biology</i> , <b>2022</b> ,	11.4	3
43	Supplementary material to "Improved representation of plant functional types and physiology in the Joint UK Land Environment Simulator (JULES v4.2) using plant trait information"		3
42	Half of the world's tree biodiversity is unprotected and is increasingly threatened by human activities		3
41	Does winter oilseed rape as a winter cover crop influence potato late blight development in an organic crop rotation?. <i>Biological Agriculture and Horticulture</i> , <b>2020</b> , 36, 71-83	1.6	3
40	Comparisons of photosynthetic and anatomical traits between wild and domesticated cotton. <i>Journal of Experimental Botany</i> , <b>2021</b> ,	7	3
39	Global macroecology of nitrogen-fixing plants. <i>Global Ecology and Biogeography</i> , <b>2021</b> , 30, 514-526	6.1	3
38	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
37	Global patterns of leaf construction traits and their covariation along climate and soil environmental gradients. <i>New Phytologist</i> , <b>2021</b> , 232, 1648-1660	9.8	3
36	Leaf Trait Plasticity and Evolution in Different Plant Functional Types 473-522		3
35	Plant organ senescence above- and belowground in trees: how to best salvage resources for new growth?. <i>Tree Physiology</i> , <b>2020</b> , 40, 981-986	4.2	2
34	Leaf to Landscape. <i>Ecological Studies</i> , <b>2004</b> , 207-227	1.1	2
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30	Improved representation of plant functional types and physiology in the Joint UK Land Environment Simulator (JULES v4.2) using plant trait information <b>2016</b> ,		2
29	A dataset of the flowering plants (Angiospermae) in urban green areas in five European cities. <i>Data in Brief</i> , <b>2021</b> , 37, 107243	1.2	2

28	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
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26	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
25	Energy requirement for foliage construction depends on tree size in young <i>Picea abies</i> trees. <i>Trees - Structure and Function</i> , <b>1997</b> , 11, 420-431	2.6	1
24	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
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20	Does the leaf economic spectrum hold within plant functional types? A Bayesian multivariate trait meta-analysis		
19	Wounding-Induced VOC Emissions in Five Tropical Agricultural Species. <i>Molecules</i> , <b>2021</b> , 26,	4.8	1
18	Induced Volatile Emissions, Photosynthetic Characteristics, and Pigment Content in <i>Juglans regia</i> Leaves Infected with the Erineum-Forming Mite <i>Aceria erineae</i> . <i>Forests</i> , <b>2021</b> , 12, 920	2.8	1
17	The effects of intervessel pit characteristics on xylem hydraulic efficiency and photosynthesis in hemiepiphytic and non-hemiepiphytic <i>Ficus</i> species. <i>Physiologia Plantarum</i> , <b>2019</b> , 167, 661-675	4.6	1
16	Different functional characteristics can explain different dimensions of plant invasion success. <i>Journal of Ecology</i> , <b>2021</b> , 109, 1524-1536	6	1
15	AusTraits  curated plant trait database for the Australian flora		1
14	Forest canopy mitigates soil N <sub>2</sub> O emission during hot moments. <i>Npj Climate and Atmospheric Science</i> , <b>2021</b> , 4,	8	1
13	Analyzing the causes of method-to-method variability among Rubisco kinetic traits: from the first to the current measurements. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 7846-7862	7	1
12	Phloem-feeding insect infestation antagonizes volatile organic compound emissions and enhances heat stress recovery of photosynthesis in <i>Origanum vulgare</i> . <i>Environmental and Experimental Botany</i> , <b>2021</b> , 189, 104551	5.9	1
11	Highly Diverse <i>Phytophthora infestans</i> Populations Infecting Potato Crops in Pskov Region, North-West Russia. <i>Journal of Fungi (Basel, Switzerland)</i> , <b>2022</b> , 8, 472	5.6	1

10	Priority for climate adaptation measures in European crop production systems. <i>European Journal of Agronomy</i> , <b>2022</b> , 138, 126516	5	1
9	Sex-specific interactions shape root phenolics and rhizosphere microbial communities in <i>Populus cathayana</i> . <i>Forest Ecology and Management</i> , <b>2022</b> , 504, 119857	3.9	0
8	Impact of heat stress of varying severity on papaya ( <i>Carica papaya</i> ) leaves: Major changes in stress volatile signatures, but surprisingly small enhancements of total emissions. <i>Environmental and Experimental Botany</i> , <b>2022</b> , 195, 104777	5.9	0
7	A meta-analysis of mesophyll conductance to CO <sub>2</sub> in relation to major abiotic stresses in poplar species. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 4384-4400	7	0
6	Powdery mildew ( <i>Erysiphe cruciferarum</i> ) evaluation on oilseed rape and alternative cruciferous oilseed crops in the northern Baltic region in unusually warm growing seasons. <i>Acta Agriculturae Scandinavica - Section B Soil and Plant Science</i> , <b>2021</b> , 71, 443-452	1.1	0
5	CO <sub>2</sub> -responsiveness of leaf isoprene emission: Why do species differ?. <i>Plant, Cell and Environment</i> , <b>2021</b> , 44, 3049-3063	8.4	0
4	Structure and function of the soil microbiome underlying NO emissions from global wetlands.. <i>Nature Communications</i> , <b>2022</b> , 13, 1430	17.4	0
3	Improved plant heat shock resistance is introduced differently by heat and insect infestation: the role of volatile emission traits.. <i>Oecologia</i> , <b>2022</b> , 1	2.9	0
2	Particulate matter and polycyclic aromatic hydrocarbon uptake in relation to leaf surface functional traits in Mediterranean evergreens: Potentials for air phytoremediation.. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 435, 129029	12.8	0
1	Acute methyl jasmonate exposure results in major bursts of stress volatiles, but in surprisingly low impact on specialized volatile emissions in the fragrant grass <i>Cymbopogon flexuosus</i> . <i>Journal of Plant Physiology</i> , <b>2022</b> , 153721	3.6	0