John R Evans

List of Publications by Citations

111 papers	11,291 citations	52 h-index	106 g-index
117 ext. papers	13,041 ext. citations	6 avg, IF	6.81 L-index

#	Paper	IF	Citations
111	Photosynthesis and nitrogen relationships in leaves of C plants. *Oecologia*, **1989**, 78, 9-19	2.9	2422
110	Nitrogen and Photosynthesis in the Flag Leaf of Wheat (Triticum aestivum L.). *Plant Physiology*, **1983**, 72, 297-302	6.6	562
109	Photosynthetic nitrogen-use efficiency of species that differ inherently in specific leaf area. *Oecologia*, **1998**, 116, 26-37	2.9	405
108	Resistances along the CO2 diffusion pathway inside leaves. *Journal of Experimental Botany*, **2009**, 60, 2235-48	7	391
107	The kinetics of ribulose-1,5-bisphosphate carboxylase/oxygenase in vivo inferred from measurements of photosynthesis in leaves of transgenic tobacco. *Planta*, **1994**, 195, 88-97	4.7	325
106	The importance of energy balance in improving photosynthetic productivity. *Plant Physiology*, **2011**, 155, 70-8	6.6	296
105	Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. *New Phytologist*, **2015**, 206, 614-36	9.8	244
104	Estimating mesophyll conductance to CO2: methodology, potential errors, and recommendations. *Journal of Experimental Botany*, **2009**, 60, 2217-34	7	241
103	Reduction of ribulose-1,5-bisphosphate carboxylase/oxygenase content by antisense RNA reduces photosynthesis in transgenic tobacco plants. *Plant Physiology*, **1992**, 98, 294-302	6.6	228
102	Leaf respiration of snow gum in the light and dark. Interactions between temperature and irradiance. *Plant Physiology*, **2000**, 122, 915-23	6.6	226
101	Physiological and structural tradeoffs underlying the leaf economics spectrum. *New Phytologist*, **2017**, 214, 1447-1463	9.8	222
100	Improving photosynthesis. *Plant Physiology*, **2013**, 162, 1780-93	6.6	205
99	Proteoid roots. Physiology and development. *Plant Physiology*, **1999**, 121, 317-24	6.6	193
98	Linking development and determinacy with organic acid efflux from proteoid roots of white lupin grown with low phosphorus and ambient or elevated atmospheric CO2 concentration. *Plant Physiology*, **1999**, 120, 705-16	6.6	189
97	Temperature responses of mesophyll conductance differ greatly between species. *Plant, Cell and Environment*, **2015**, 38, 629-37	8.4	188
96	Faster Rubisco is the key to superior nitrogen-use efficiency in NADP-malic enzyme relative to NAD-malic enzyme C4 grasses. *Plant Physiology*, **2005**, 137, 638-50	6.6	179
95	Specific reduction of chloroplast carbonic anhydrase activity by antisense RNA in transgenic tobacco plants has a minor effect on photosynthetic CO2 assimilation. *Planta*, **1994**, 193, 331-340	4.7	172

94	Leaf anatomy enables more equal access to light and CO2 between chloroplasts. *New Phytologist*, **1999**, 143, 93-104	9.8	171
93	Construction costs, chemical composition and payback time of high- and low-irradiance leaves. *Journal of Experimental Botany*, **2006**, 57, 355-71	7	148
92	Temperature response of carbon isotope discrimination and mesophyll conductance in tobacco. *Plant, Cell and Environment*, **2013**, 36, 745-56	8.4	147
91	The cyanobacterial CCM as a source of genes for improving photosynthetic CO2 fixation in crop species. *Journal of Experimental Botany*, **2013**, 64, 753-68	7	138
90	A simple new equation for the reversible temperature dependence of photosynthetic electron transport: a study on soybean leaf. *Functional Plant Biology*, **2004**, 31, 275-283	2.7	134
89	Influence of leaf dry mass per area, CO2, and irradiance on mesophyll conductance in sclerophylls. *Journal of Experimental Botany*, **2009**, 60, 2303-14	7	129
88	Hyperspectral reflectance as a tool to measure biochemical and physiological traits in wheat. *Journal of Experimental Botany*, **2018**, 69, 483-496	7	127
87	Relationship between the inhibition of leaf respiration by light and enhancement of leaf dark respiration following light treatment. *Functional Plant Biology*, **1998**, 25, 437	2.7	123
86	Differences between Wheat Genotypes in Specific Activity of Ribulose-1,5-bisphosphate Carboxylase and the Relationship to Photosynthesis. *Plant Physiology*, **1984**, 74, 759-65	6.6	121
85	Using tunable diode laser spectroscopy to measure carbon isotope discrimination and mesophyll conductance to CO□ diffusion dynamically at different CO□ concentrations. *Plant, Cell and Environment*, **2011**, 34, 580-91	8.4	116
84	Acquisition and Diffusion of CO2 in Higher Plant Leaves. *Advances in Photosynthesis and Respiration*, **2000**, 321-351	1.7	116
83	Temperature response of mesophyll conductance in cultivated and wild Oryza species with contrasting mesophyll cell wall thickness. *Plant, Cell and Environment*, **2011**, 34, 1999-2008	8.4	115
82	Effects of growth and measurement light intensities on temperature dependence of CO(2) assimilation rate in tobacco leaves. *Plant, Cell and Environment*, **2010**, 33, 332-43	8.4	115
81	Specific reduction of chloroplast glyceraldehyde-3-phosphate dehydrogenase activity by antisense RNA reduces CO2 assimilation via a reduction in ribulose bisphosphate regeneration in transgenic tobacco plants. *Planta*, **1995**, 195, 369-78	4.7	113
80	Light and CO2 do not affect the mesophyll conductance to CO2 diffusion in wheat leaves. *Journal of Experimental Botany*, **2009**, 60, 2291-301	7	109
79	Leaf mesophyll diffusion conductance in 35 Australian sclerophylls covering a broad range of foliage structural and physiological variation. *Journal of Experimental Botany*, **2009**, 60, 2433-49	7	104
78	The nitrogen cost of photosynthesis. *Journal of Experimental Botany*, **2019**, 70, 7-15	7	98
77	Trait correlation networks: a whole-plant perspective on the recently criticized leaf economic spectrum. *New Phytologist*, **2014**, 201, 378-382	9.8	93

76	Growth of the C4 dicot Flaveria bidentis: photosynthetic acclimation to low light through shifts in leaf anatomy and biochemistry. *Journal of Experimental Botany*, **2010**, 61, 4109-22	7	93
75	A comment on the quantitative significance of aerobic methane release by plants. *Functional Plant Biology*, **2006**, 33, 521-530	2.7	93
74	Enhancing C3 photosynthesis. *Plant Physiology*, **2010**, 154, 589-92	6.6	92
73	The relationship between CO-assimilation rate, Rubisco carbamylation and Rubisco activase content in activase-deficient transgenic tobacco suggests a simple model of activase action. *Planta*, **1996**, 198, 604-613	4.7	89
72	Nitrogen in cell walls of sclerophyllous leaves accounts for little of the variation in photosynthetic nitrogen-use efficiency. *Plant, Cell and Environment*, **2009**, 32, 259-70	8.4	82
71	High-resolution temperature responses of leaf respiration in snow gum (Eucalyptus pauciflora) reveal high-temperature limits to respiratory function. *Plant, Cell and Environment*, **2013**, 36, 1268-84	8.4	75
70	The response of fast- and slow-growing Acacia species to elevated atmospheric CO: an analysis of the underlying components of relative growth rate. *Oecologia*, **1999**, 120, 544-554	2.9	75
69	Online CO2 and H2 O oxygen isotope fractionation allows estimation of mesophyll conductance in C4 plants, and reveals that mesophyll conductance decreases as leaves age in both C4 and C3 plants. *New Phytologist*, **2016**, 210, 875-89	9.8	75
68	Growth and nutritive value of cassava (Manihot esculenta Cranz.) are reduced when grown in elevated CO. *Plant Biology*, **2009**, 11 Suppl 1, 76-82	3.7	73
67	Dual-purpose cereals: can the relative influences of management and environment on crop recovery and grain yield be dissected?. *Crop and Pasture Science*, **2011**, 62, 930	2.2	71
66	Carbon dioxide and water transport through plant aquaporins. *Plant, Cell and Environment*, **2017**, 40, 938-961	8.4	67
65	Leaf-level photosynthetic capacity in lowland Amazonian and high-elevation Andean tropical moist forests of Peru. *New Phytologist*, **2017**, 214, 1002-1018	9.8	62
64	Strong thermal acclimation of photosynthesis in tropical and temperate wet-forest tree species: the importance of altered Rubisco content. *Global Change Biology*, **2017**, 23, 2783-2800	11.4	59
63	Stomatal crypts may facilitate diffusion of CO(2) to adaxial mesophyll cells in thick sclerophylls. *Plant, Cell and Environment*, **2009**, 32, 1596-611	8.4	58
62	Photosynthesis within isobilateral Eucalyptus pauciflora leaves. *New Phytologist*, **2006**, 171, 771-82	9.8	57
61	Photosynthesis at an extreme end of the leaf trait spectrum: how does it relate to high leaf dry mass per area and associated structural parameters?. *Journal of Experimental Botany*, **2010**, 61, 3015-28	7	54
60	Phosphorus availability and elevated CO2 affect biological nitrogen fixation and nutrient fluxes in a clover-dominated sward. *New Phytologist*, **2006**, 169, 157-67	9.8	54
59	Is a Low Internal Conductance to CO2 Diffusion a Consequence of Succulence in Plants with Crassulacean Acid Metabolism?. *Functional Plant Biology*, **1997**, 24, 777	2.7	51

58	Phosphorus acquisition from soil by white lupin (Lupinus albus L.) and soybean (Glycine max L.), species with contrasting root development. *Plant and Soil*, **2003**, 248, 271-283	4.2	46
57	Potential errors in electron transport rates calculated from chlorophyll fluorescence as revealed by a multilayer leaf model. *Plant and Cell Physiology*, **2009**, 50, 698-706	4.9	44
56	Functional analysis of corn husk photosynthesis. *Plant Physiology*, **2011**, 156, 503-13	6.6	44
55	Grazing winter wheat relieves plant water stress and transiently enhances photosynthesis. *Functional Plant Biology*, **2010**, 37, 726	2.7	43
54	Photosynthesis is strongly reduced by antisense suppression of chloroplastic cytochrome bf complex in transgenic tobacco. *Functional Plant Biology*, **1998**, 25, 445	2.7	43
53	Recovery dynamics of rainfed winter wheat after livestock grazing 1. Growth rates, grain yields, soil water use and water-use efficiency. *Crop and Pasture Science*, **2011**, 62, 947	2.2	41
52	Effects of elevated atmospheric CO2, cutting frequency, and differential day/night atmospheric warming on root growth and turnover of Phalaris swards. *Global Change Biology*, **2007**, 13, 1040-1052	11.4	41
51	Rubisco: the consequences of altering its expression and activation in transgenic plants. *Journal of Experimental Botany*, **1995**, 46, 1293-1300	7	40
50	Nitrogen fertilization enhances water-use efficiency in a saline environment. *Plant, Cell and Environment*, **2010**, 33, 344-57	8.4	39
49	Chloroplast to Leaf. *Ecological Studies*, **2004**, 15-41	1.1	34
48	Effects of reduced carbonic anhydrase activity on CO2 assimilation rates in Setaria viridis: a transgenic analysis. *Journal of Experimental Botany*, **2017**, 68, 299-310	7	33
47	Predicting dark respiration rates of wheat leaves from hyperspectral reflectance. *Plant, Cell and Environment*, **2019**, 42, 2133-2150	8.4	32
46	Recovery dynamics of rainfed winter wheat after livestock grazing 2. Light interception, radiation-use efficiency and dry-matter partitioning. *Crop and Pasture Science*, **2011**, 62, 960	2.2	32
45	Embracing 3D Complexity in Leaf Carbon-Water Exchange. *Trends in Plant Science*, **2019**, 24, 15-24	13.1	32
44	PrometheusWiki Gold Leaf Protocol: gas exchange using LI-COR 6400. *Functional Plant Biology*, **2014**, 41, 223-226	2.7	29
43	Antisense reductions in the PsbO protein of photosystem II leads to decreased quantum yield but similar maximal photosynthetic rates. *Journal of Experimental Botany*, **2012**, 63, 4781-95	7	28
42	Absolute absorption and relative fluorescence excitation spectra of the five major chlorophyll-protein complexes from spinach thylakoid membranes. *Biochimica Et Biophysica Acta - Bioenergetics*, **1987**, 892, 75-82	4.6	28
41	Biochemical model of C photosynthesis applied to wheat at different temperatures. *Plant, Cell and Environment*, **2017**, 40, 1552-1564	8.4	26

40	Drought increases heat tolerance of leaf respiration in Eucalyptus globulus saplings grown under both ambient and elevated atmospheric [CO2] and temperature. *Journal of Experimental Botany*, **2014**, 65, 6471-85	7	25
39	Using a mathematical framework to examine physiological changes in winter wheat after livestock grazing: 2. Model validation and effects of grazing management. *Field Crops Research*, **2012**, 136, 127-137	5.5	25
38	Using a mathematical framework to examine physiological changes in winter wheat after livestock grazing. *Field Crops Research*, **2012**, 136, 116-126	5.5	22
37	Changes in nutritional value of cyanogenic trifolium repens grown at elevated atmospheric CO2. *Journal of Chemical Ecology*, **2009**, 35, 476-8	2.7	22
36	Resolving methane fluxes. *New Phytologist*, **2007**, 175, 1-4	9.8	22
35	Stomatal, mesophyll conductance, and biochemical limitations to photosynthesis during induction. *Plant Physiology*, **2021**, 185, 146-160	6.6	22
34	Mesophyll conductance does not contribute to greater photosynthetic rate per unit nitrogen in temperate compared with tropical evergreen wet-forest tree leaves. *New Phytologist*, **2018**, 218, 492-503	9.8	21
33	Association between water and carbon dioxide transport in leaf plasma membranes: assessing the role of aquaporins. *Plant, Cell and Environment*, **2017**, 40, 789-801	8.4	20
32	Genetic variation for photosynthetic capacity and efficiency in spring wheat. *Journal of Experimental Botany*, **2020**, 71, 2299-2311	7	20
31	Mesophyll conductance: walls, membranes and spatial complexity. *New Phytologist*, **2021**, 229, 1864-1876	9.8	20
30	Chapter 8 Nitrogen and Water Use Efficiency of C4 Plants. *Advances in Photosynthesis and Respiration*, **2010**, 129-146	1.7	19
29	Effects of mesophyll conductance on vegetation responses to elevated CO concentrations in a land surface model. *Global Change Biology*, **2019**, 25, 1820-1838	11.4	17
28	Light Quality Affects Chloroplast Electron Transport Rates Estimated from Chl Fluorescence Measurements. *Plant and Cell Physiology*, **2017**, 58, 1652-1660	4.9	16
27	Effects of water availability, nitrogen supply and atmospheric CO concentrations on plant nitrogen natural abundance values. *Functional Plant Biology*, **2006**, 33, 219-227	2.7	16
26	Genome-wide identification and characterisation of Aquaporins in Nicotiana tabacum and their relationships with other Solanaceae species. *BMC Plant Biology*, **2020**, 20, 266	5.3	14
25	A unique web resource for physiology, ecology and the environmental sciences: PrometheusWiki. *Functional Plant Biology*, **2010**, 37, 687	2.7	13
24	Effects of growth temperature on photosynthetic gas exchange characteristics and hydraulic anatomy in leaves of two cold-climate Poa species. *Functional Plant Biology*, **2010**, 38, 54-62	2.7	11
23	A reporting format for leaf-level gas exchange data and metadata. *Ecological Informatics*, **2021**, 61, 101232	4.2	11

22	A Decrease in Mesophyll Conductance by Cell-Wall Thickening Contributes to Photosynthetic Downregulation. *Plant Physiology*, **2020**, 183, 1600-1611	6.6	10
21	Exploiting transplastomically modified Rubisco to rapidly measure natural diversity in its carbon isotope discrimination using tuneable diode laser spectroscopy. *Journal of Experimental Botany*, **2014**, 65, 3759-67	7	10
20	Phosphorus status determines biomass response to elevated CO2 in a legume : C4 grass community. *Global Change Biology*, **2005**, 11, 051013014052003-???	11.4	10
19	Chloroplast to Leaf. *Ecological Studies*, **2004**, 107-132	1.1	9
18	Uncovering candidate genes involved in photosynthetic capacity using unexplored genetic variation in Spring Wheat. *Plant Biotechnology Journal*, **2021**, 19, 1537-1552	11.6	8
17	Effect of leaf temperature on the estimation of photosynthetic and other traits of wheat leaves from hyperspectral reflectance. *Journal of Experimental Botany*, **2021**, 72, 1271-1281	7	7
16	AusTraits, a curated plant trait database for the Australian flora. *Scientific Data*, **2021**, 8, 254	8.2	6
15	Phosphorus deficiency alters scaling relationships between leaf gas exchange and associated traits in a wide range of contrasting Eucalyptus species. *Functional Plant Biology*, **2018**, 45, 813-826	2.7	5
14	Internal transport of CO from the root-zone to plant shoot is pH dependent. *Physiologia Plantarum*, **2019**, 165, 451-463	4.6	4
13	Effects of elevated atmospheric CO2 concentrations, clipping regimen and differential day/night atmospheric warming on tissue nitrogen concentrations of a perennial pasture grass. *AoB PLANTS*, **2015**, 7,	2.9	4
12	Wheat physiology predictor: predicting physiological traits in wheat from hyperspectral reflectance measurements using deep learning. *Plant Methods*, **2021**, 17, 108	5.8	4
11	Effect of N supply on the carbon economy of barley when accounting for plant size. *Functional Plant Biology*, **2020**, 47, 368-381	2.7	3
10	Phosphorus acquisition from soil by white lupin (Lupinus albus L.) and soybean (Glycine max L.), species with contrasting root development **2003**, 271-283		2
9	Temperature responses of photosynthesis and respiration in a sub-Antarctic megaherb from Heard Island. *Functional Plant Biology*, **2015**, 42, 552-564	2.7	1
8	Uncovering candidate genes involved in photosynthetic capacity using unexplored genetic variation in Spring Wheat		1
7	Measurement of Mesophyll Conductance in Tobacco, Arabidopsis and Wheat Leaves with Tunable Diode Laser Absorption Spectroscopy. *Advanced Topics in Science and Technology in China*, **2013**, 751-755	0.2	1
6	Carbon Dioxide Diffusion Inside C3 Leaves **1998**, 3463-3466		1
5	A consensus on the Aquaporin Gene Family in the Allotetraploid Plant,. *Plant Direct*, **2021**, 5, e00321	3.3	1

4	AusTraits a curated plant trait database for the Australian flora		1
3	Mesophyll conductance is unaffected by expression of Arabidopsis PIP1 aquaporins in the plasmalemma of Nicotiana.. *Journal of Experimental Botany*, **2022**,	7	1
2	The Regulation of Rubisco Catalysis by Rubisco Activase **1995**, 3909-3914		
1	Regulation of CO2 Assimilation Rate by the Chloroplast Cytochrome BF Complex **1998**, 3643-3648		