Sharon A Robinson

List of Publications by Citations

120 papers	7,006 citations	42 h-index	82 g-index
129 ext. papers	8,507 ext. citations	6.3 avg, IF	5.79 L-index

#	Paper	IF	Citations
120	Biodiversity redistribution under climate change: Impacts on ecosystems and human well-being. *Science*, **2017**, 355,	33.3	1215
119	Antarctic climate change and the environment: an update. *Polar Record*, **2014**, 50, 237-259	0.5	306
118	Effects of solar ultraviolet radiation on terrestrial ecosystems. Patterns, mechanisms, and interactions with climate change. *Photochemical and Photobiological Sciences*, **2011**, 10, 226-41	4.2	277
117	The role of glutamate dehydrogenase in plant nitrogen metabolism. *Plant Physiology*, **1991**, 95, 509-16	6.6	257
116	Genome of the long-living sacred lotus (Nelumbo nucifera Gaertn.). *Genome Biology*, **2013**, 14, R41	18.3	241
115	Solar ultraviolet radiation in a changing climate. *Nature Climate Change*, **2014**, 4, 434-441	21.4	221
114	The spatial structure of Antarctic biodiversity. *Ecological Monographs*, **2014**, 84, 203-244	9	203
113	Living on the edge plants and global change in continental and maritime Antarctica. *Global Change Biology*, **2003**, 9, 1681-1717	11.4	166
112	Using an Unmanned Aerial Vehicle (UAV) to capture micro-topography of Antarctic moss beds. *International Journal of Applied Earth Observation and Geoinformation*, **2014**, 27, 53-62	7.3	163
111	Antarctic climate change and the environment. *Antarctic Science*, **2009**, 21, 541-563	1.7	148
110	Concepts of plant biotic stress. Some insights into the stress physiology of virus-infected plants, from the perspective of photosynthesis. *Physiologia Plantarum*, **1997**, 100, 203-213	4.6	134
109	Electron Partitioning between the Cytochrome and Alternative Pathways in Plant Mitochondria. *Plant Physiology*, **1995**, 109, 829-837	6.6	131
108	Spatial Co-Registration of Ultra-High Resolution Visible, Multispectral and Thermal Images Acquired with a Micro-UAV over Antarctic Moss Beds. *Remote Sensing*, **2014**, 6, 4003-4024	5	126
107	Photosystem II Regulation and Dynamics of the Chloroplast D1 Protein in Arabidopsis Leaves during Photosynthesis and Photoinhibition. *Plant Physiology*, **1995**, 107, 943-952	6.6	125
106	Solar ultraviolet radiation and ozone depletion-driven climate change: effects on terrestrial ecosystems. *Photochemical and Photobiological Sciences*, **2015**, 14, 88-107	4.2	123
105	Responses of plants in polar regions to UVB exposure: a meta-analysis. *Global Change Biology*, **2009** , 15, 2574-2589	11.4	123
104	Environmental effects of ozone depletion, UV radiation and interactions with climate change: UNEP Environmental Effects Assessment Panel, update 2017. *Photochemical and Photobiological Sciences*, **2018**, 17, 127-179	4.2	105

103	Regulation of glutamate dehydrogenase activity in relation to carbon limitation and protein catabolism in carrot cell suspension cultures. *Plant Physiology*, **1992**, 98, 1190-5	6.6	104
102	Measurements of the Engagement of Cyanide-Resistant Respiration in the Crassulacean Acid Metabolism Plant Kalanchoë daigremontiana with the Use of On-Line Oxygen Isotope Discrimination. *Plant Physiology*, **1992**, 100, 1087-91	6.6	94
101	The Regulation of Electron Partitioning between the Cytochrome and Alternative Pathways in Soybean Cotyledon and Root Mitochondria. *Plant Physiology*, **1997**, 113, 903-911	6.6	81
100	Cell wall-bound ultraviolet-screening compounds explain the high ultraviolet tolerance of the Antarctic moss, Ceratodon purpureus. *New Phytologist*, **2008**, 179, 776-783	9.8	81
99	Linkages between stratospheric ozone, UV radiation and climate change and their implications for terrestrial ecosystems. *Photochemical and Photobiological Sciences*, **2019**, 18, 681-716	4.2	77
98	Effects of light on respiration and oxygen isotope fractionation in soybean cotyledons. *Plant, Cell and Environment*, **2000**, 23, 983-989	8.4	73
97	Extending Fluspect to simulate xanthophyll driven leaf reflectance dynamics. *Remote Sensing of Environment*, **2018**, 211, 345-356	13.2	71
96	Surface reflectance properties of Antarctic moss and their relationship to plant species, pigment composition and photosynthetic function. *Plant, Cell and Environment*, **2002**, 25, 1239-1250	8.4	71
95	Impact of changes in natural ultraviolet radiation on pigment composition, physiological and morphological characteristics of the Antarctic moss, Grimmia antarctici. *Global Change Biology*, **2005**, 11, 476-489	11.4	68
94	Wax as a Mechanism for Protection against Photoinhibition A Study of Cotyledon orbiculata. *Botanica Acta*, **1993**, 106, 307-312		68
93	The interactive effects of stratospheric ozone depletion, UV radiation, and climate change on aquatic ecosystems. *Photochemical and Photobiological Sciences*, **2019**, 18, 717-746	4.2	66
92	Internal and external photoprotection in developing leaves of the CAM plant Cotyledon orbiculata. *Plant, Cell and Environment*, **1997**, 20, 617-624	8.4	65
91	Ozone depletion, ultraviolet radiation, climate change and prospects for a sustainable future. *Nature Sustainability*, **2019**, 2, 569-579	22.1	61
90	Some like it wet - biological characteristics underpinning tolerance of extreme water stress events in Antarctic bryophytes. *Functional Plant Biology*, **2006**, 33, 443-455	2.7	60
89	Contribution of the alternative pathway to respiration during thermogenesis in flowers of the sacred lotus. *Plant Physiology*, **2006**, 140, 1367-73	6.6	60
88	Not just about sunburn--the ozone hole's profound effect on climate has significant implications for Southern Hemisphere ecosystems. *Global Change Biology*, **2015**, 21, 515-27	11.4	55
87	Phylloxera-infested grapevines have reduced chlorophyll and increased photoprotective pigment content - can leaf pigment composition aid pest detection?. *Functional Plant Biology*, **2006**, 33, 507-514	2.7	55
86	Climate change manipulations show Antarctic flora is more strongly affected by elevated nutrients than water. *Global Change Biology*, **2006**, 12, 1800-1812	11.4	55

85	The Enzymology and Metabolism of Glutamine, Glutamate, and Asparagine **1990**, 121-159		55
84	Rapid change in East Antarctic terrestrial vegetation in response to regional drying. *Nature Climate Change*, **2018**, 8, 879-884	21.4	53
83	Unmanned aircraft system advances health mapping of fragile polar vegetation. *Methods in Ecology and Evolution*, **2017**, 8, 1842-1857	7.7	47
82	Ultraviolet B screening potential is higher in two cosmopolitan moss species than in a co-occurring Antarctic endemic moss: implications of continuing ozone depletion. *Global Change Biology*, **2006**, 12, 2282-2296	11.4	46
81	Radiocarbon bomb spike reveals biological effects of Antarctic climate change. *Global Change Biology*, **2012**, 18, 301-310	11.4	44
80	Phytoremediation of hydrocarbon contaminants in subantarctic soils: an effective management option. *Journal of Environmental Management*, **2014**, 142, 60-9	7.9	43
79	Combating ecosystem collapse from the tropics to the Antarctic. *Global Change Biology*, **2021**, 27, 1692-1703	11.4	43
78	Antarctic Moss Biflavonoids Show High Antioxidant and Ultraviolet-Screening Activity. *Journal of Natural Products*, **2017**, 80, 2224-2231	4.9	40
77	Evidence for deamination by glutamate dehydrogenase in higher plants: Commentary. *Canadian Journal of Botany*, **1995**, 73, 1112-1115		40
76	Synchronicity of thermogenic activity, alternative pathway respiratory flux, AOX protein content, and carbohydrates in receptacle tissues of sacred lotus during floral development. *Journal of Experimental Botany*, **2008**, 59, 705-14	7	39
75	Environmental effects of ozone depletion and its interactions with climate change: progress report, 2015. *Photochemical and Photobiological Sciences*, **2016**, 15, 141-74	4.2	37
74	Environmental effects of ozone depletion and its interactions with climate change: progress report, 2011. *Photochemical and Photobiological Sciences*, **2012**, 11, 13-27	4.2	37
73	Two cys or not two cys? That is the question; alternative oxidase in the thermogenic plant sacred Lotus. *Plant Physiology*, **2009**, 150, 987-95	6.6	37
72	Accumulation of DNA damage in Antarctic mosses: correlations with ultraviolet-B radiation, temperature and turf water content vary among species. *Global Change Biology*, **2009**, 15, 319-329	11.4	37
71	Evidence That Glutamate Dehydrogenase Plays a Role in the Oxidative Deamination of Glutamate in Seedlings of Zea mays. *Functional Plant Biology*, **1995**, 22, 805	2.7	37
70	Antarctic moss stress assessment based on chlorophyll content and leaf density retrieved from imaging spectroscopy data. *New Phytologist*, **2015**, 208, 608-24	9.8	36
69	Responses of Rainforest Understorey Plants to Excess Light during Sunflecks. *Functional Plant Biology*, **1997**, 24, 17	2.7	36
68	Beyond Sham and Cyanide: Opportunities for Studying the Alternative Oxidase in Plant Respiration Using Oxygen Isotope Discrimination.. *Functional Plant Biology*, **1995**, 22, 487	2.7	36

67	Canopy conundrums: building on the Biosphere 2 experience to scale measurements of inner and outer canopy photoprotection from the leaf to the landscape. *Functional Plant Biology*, **2012**, 39, 1-24	2.7	35
66	The Application of the Oxygen-Isotope Technique to Assess Respiratory Pathway Partitioning **2005**, 31-42		35
65	Environmental effects of stratospheric ozone depletion, UV radiation, and interactions with climate change: UNEP Environmental Effects Assessment Panel, Update 2020. *Photochemical and Photobiological Sciences*, **2021**, 20, 1-67	4.2	34
64	Desiccation protects two Antarctic mosses from ultraviolet-B induced DNA damage. *Functional Plant Biology*, **2009**, 36, 214-221	2.7	33
63	Comparison of solvent regimes for the extraction of photosynthetic pigments from leaves of higher plants. *Functional Plant Biology*, **2004**, 31, 195-202	2.7	32
62	Relative functional and optical absorption cross-sections of PSII and other photosynthetic parameters monitored in situ, at a distance with a time resolution of a few seconds, using a prototype light induced fluorescence transient (LIFT) device. *Functional Plant Biology*, **2017**, 44, 985-1006	2.7	30
61	Environmental effects of ozone depletion and its interactions with climate change: Progress report, 2016. *Photochemical and Photobiological Sciences*, **2017**, 16, 107-145	4.2	29
60	From ecophysiology to phenomics: some implications of photoprotection and shade-sun acclimation in situ for dynamics of thylakoids in vitro. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2012**, 367, 3503-14	5.8	28
59	Regulation of Respiration In Vivo **2005**, 1-15		26
58	Environmental effects of stratospheric ozone depletion, UV radiation and interactions with climate change: UNEP Environmental Effects Assessment Panel, update 2019. *Photochemical and Photobiological Sciences*, **2020**, 19, 542-584	4.2	24
57	In the heat of the night--alternative pathway respiration drives thermogenesis in Philodendron bipinnatifidum. *New Phytologist*, **2011**, 189, 1013-1026	9.8	24
56	The 2019/2020 summer of Antarctic heatwaves. *Global Change Biology*, **2020**, 26, 3178-3180	11.4	24
55	Assessment of Antarctic moss health from multi-sensor UAS imagery with Random Forest Modelling. *International Journal of Applied Earth Observation and Geoinformation*, **2018**, 68, 168-179	7.3	23
54	Bryophyte species composition over moisture gradients in the Windmill Islands, East Antarctica: development of a baseline for monitoring climate change impacts. *Biodiversity*, **2012**, 13, 257-264	0.7	22
53	Response of Tradescantia albiflora to growth irradiance: Change versus changeability. *Photosynthesis Research*, **2001**, 67, 103-12	3.7	22
52	Dominating the Antarctic Environment: Bryophytes in a Time of Change. *Advances in Photosynthesis and Respiration*, **2014**, 309-324	1.7	22
51	Sunsafe Bryophytes: Photoprotection from Excess and Damaging Solar Radiation. *Advances in Photosynthesis and Respiration*, **2014**, 113-130	1.7	22
50	Moving beyond presence and absence when examining changes in species distributions. *Global Change Biology*, **2017**, 23, 2929-2940	11.4	21

49	Moss δ(13) C: an accurate proxy for past water environments in polar regions. *Global Change Biology*, **2015**, 21, 2454-64	11.4	20
48	Do Daily and Seasonal Trends in Leaf Solar Induced Fluorescence Reflect Changes in Photosynthesis, Growth or Light Exposure?. *Remote Sensing*, **2017**, 9, 604	5	19
47	Desiccation tolerance of three moss species from continental Antarctica. *Functional Plant Biology*, **2000**, 27, 379	2.7	19
46	Genetic structure of East Antarctic populations of the moss Ceratodon purpureus. *Antarctic Science* , **2009**, 21, 51-58	1.7	18
45	Mechanisms of thermoregulation in plants. *Plant Signaling and Behavior*, **2008**, 3, 595-7	2.5	18
44	Impact of hydrocarbons from a diesel fuel on the germination and early growth of subantarctic plants. *Environmental Sciences: Processes and Impacts*, **2015**, 17, 1238-48	4.3	17
43	Internal Gradients of Chlorophyll and Carotenoid Pigments in Relation to Photoprotection in Thick Leaves of Plants With Crassulacean Acid Metabolism. *Functional Plant Biology*, **1994**, 21, 497	2.7	16
42	It Is Hot in the Sun: Antarctic Mosses Have High Temperature Optima for Photosynthesis Despite Cold Climate. *Frontiers in Plant Science*, **2020**, 11, 1178	6.2	16
41	Photoprotection enhanced by red cell wall pigments in three East Antarctic mosses. *Biological Research*, **2018**, 51, 49	7.6	16
40	How Much Does Weather Matter? Effects of Rain and Wind on PM Accumulation by Four Species of Australian Native Trees. *Atmosphere*, **2019**, 10, 633	2.7	14
39	Toxicity of fuel-contaminated soil to Antarctic moss and terrestrial algae. *Environmental Toxicology and Chemistry*, **2015**, 34, 2004-12	3.8	14
38	Concepts of plant biotic stress. Some insights into the stress physiology of virus-infected plants, from the perspective of photosynthesis. *Physiologia Plantarum*, **1997**, 100, 203-213	4.6	14
37	Reframing conservation physiology to be more inclusive, integrative, relevant and forward-looking: reflections and a horizon scan **2020**, 8, coaa016		13
36	Somatic mutation and the Antarctic ozone hole. *Journal of Ecology*, **2008**, 96, 378-385	6	13
35	Interpretations of gradients in δ13C value in thick photosynthetic tissues of plants with Crassulacean acid metabolism. *Planta*, **1993**, 190, 271	4.7	12
34	Optimizing Spectral and Spatial Resolutions of Unmanned Aerial System Imaging Sensors for Monitoring Antarctic Vegetation. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, **2019**, 12, 3813-3825	4.7	11
33	Functional transition in the floral receptacle of the sacred lotus (Nelumbo nucifera): from thermogenesis to photosynthesis. *Functional Plant Biology*, **2009**, 36, 471-480	2.7	11
32	Probing functional and optical cross-sections of PSII in leaves during state transitions using fast repetition rate light induced fluorescence transients. *Functional Plant Biology*, **2019**, 46, 567-583	2.7	9

31	One hundred research questions in conservation physiology for generating actionable evidence to inform conservation policy and practice **2021**, 9, coab009		9
30	Remote monitoring of dynamic canopy photosynthesis with high time resolution light-induced fluorescence transients. *Tree Physiology*, **2018**, 38, 1302-1318	4.2	8
29	Introduction: Climate change biology at the ends of the Earth-International Polar year special issue. *Global Change Biology*, **2009**, 15, 1615-1617	11.4	8
28	Stoichiometric Nightmares: Studies of Photosynthetic O2 and CO2 Exchanges in CAM Plants. *Ecological Studies*, **1996**, 19-30	1.1	8
27	Xanthophyll cycle, light energy dissipation and electron transport in transgenic tobacco with reduced carbon assimilation capacity. *Functional Plant Biology*, **2000**, 27, 289	2.7	8
26	Roadside Moss Turfs in South East Australia Capture More Particulate Matter Along an Urban Gradient than a Common Native Tree Species. *Atmosphere*, **2019**, 10, 224	2.7	7
25	Thermotolerance capacities of native and exotic coastal plants will lead to changes in species composition under increased heat waves **2017**, 5, cox029		7
24	Friends with benefits: The effects of vegetative shading on plant survival in a green roof environment. *PLoS ONE*, **2019**, 14, e0225078	3.7	7
23	Native hemiparasite and light effects on photoprotection and photodamage in a native host. *Functional Plant Biology*, **2015**, 42, 1168-1178	2.7	7
22	The composition and oxidative stability of vegetarian omega-3 algal oil nanoemulsions suitable for functional food enrichment. *Journal of the Science of Food and Agriculture*, **2020**, 100, 695-704	4.3	7
21	Bayesian methods for comparing species physiological and ecological response curves. *Ecological Informatics*, **2016**, 34, 35-43	4.2	7
20	High tolerance of repeated heatwaves in Australian native plants. *Austral Ecology*, **2019**, 44, 597-608	1.5	6
19	Semi-Automated Analysis of Digital Photographs for Monitoring East Antarctic Vegetation. *Frontiers in Plant Science*, **2020**, 11, 766	6.2	6
18	Distribution of thermogenic activity in floral tissues of Nelumbo nucifera. *Functional Plant Biology*, **2010**, 37, 1085	2.7	6
17	Photosynthesis In Silico. Overcoming the Challenges of Photosynthesis Education Using a Multimedia CD-ROM. *Bioscience Education*, **2004**, 3, 1-14		6
16	Latitudinal Biogeographic Structuring in the Globally Distributed Moss. *Frontiers in Plant Science*, **2020**, 11, 502359	6.2	6
15	Alien grass disrupts reproduction and post-settlement recruitment of co-occurring native vegetation: a mechanism for diversity decline in invaded forest?. *Plant Ecology*, **2014**, 215, 567-580	1.7	5
14	Stress in native grasses under ecologically relevant heat waves. *PLoS ONE*, **2018**, 13, e0204906	3.7	5

13	Facilitation, competition and parasitic facilitation amongst invasive and native liana seedlings and a native tree seedling. *NeoBiota*,36, 17-38	4.2	4
12	Environmental effects of stratospheric ozone depletion, UV radiation, and interactions with climate change: UNEP Environmental Effects Assessment Panel, Update 2021.. *Photochemical and Photobiological Sciences*, **2022**, 21, 275	4.2	4
11	Introduction: Future fire activity and climate change. *Global Change Biology*, **2009**, 15, 533-544	11.4	3
10	Inhibition of non-photochemical quenching increases functional absorption cross-section of photosystem II as excitation from closed reaction centres is transferred to open centres, facilitating earlier light saturation of photosynthetic electron transport. *Functional Plant Biology*, **2021**,	2.7	3
9	Integrating transient heterogeneity of non-photochemical quenching in shade-grown heterobaric leaves of avocado (Persea americana L.): responses to CO2 concentration, stomatal occlusion, dehydration and relative humidity. *Plant and Cell Physiology*, **2013**, 54, 1852-66	4.9	2
8	PRELIMINARY INVESTIGATIONS OF PIGMENT RESPONSES TO PHYLLOXERA INFESTATION. *Acta Horticulturae*, **2007**, 123-133	0.3	2
7	UV-B and Drought Stress Influenced Growth and Cellular Compounds of Two Cultivars of Phaseolus vulgaris L. (Fabaceae). *Photochemistry and Photobiology*, **2021**, 97, 166-179	3.6	2
6	Invasive alien lianas have similar allometry to native lianas in temperate forests. *Biological Invasions* , **2017**, 19, 1029-1037	2.7	1
5	Diatom communities differ among Antarctic moss and lichen vegetation types. *Antarctic Science*, **2021**, 33, 118-132	1.7	1
4	Moss □13 C: Implications for subantarctic palaeohydrological reconstructions. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **2016**, 453, 20-29	2.9	1
3	The success of the Montreal Protocol in mitigating interactive effects of stratospheric ozone depletion and climate change on the environment. *Global Change Biology*, **2021**, 27, 5681-5683	11.4	1
2	A Validated and Accurate Method for Quantifying and Extrapolating Mangrove Above-Ground Biomass Using LiDAR Data. *Remote Sensing*, **2021**, 13, 2763	5	0
1	Development of the Photosynthetic Apparatus in Australian Rainforest Leaves **1998**, 3991-3994		