Sharon A Robinson

List of Publications by Year
in descending order

127 papers	9,965 citations	46984 47 h-index	38368 95 g-index
129 all docs	129 docs citations	129 times ranked	13150 citing authors

#	Article	IF	Citations
1	Biodiversity redistribution under climate change: Impacts on ecosystems and human well-being. Science, 2017, 355, .	6.0	2,026
2	Antarctic climate change and the environment: an update. Polar Record, 2014, 50, 237-259.	0.4	411
3	Genome of the long-living sacred lotus (Nelumbo nucifera Gaertn.). Genome Biology, 2013, 14, R41.	13.9	329
4	Effects of solar ultraviolet radiation on terrestrial ecosystems. Patterns, mechanisms, and interactions with climate change. Photochemical and Photobiological Sciences, 2011, 10, 226-241.	1.6	328
5	The Role of Glutamate Dehydrogenase in Plant Nitrogen Metabolism. Plant Physiology, 1991, 95, 509-516.	2.3	297
6	The spatial structure of Antarctic biodiversity. Ecological Monographs, 2014, 84, 203-244.	2.4	286
7	Solar ultraviolet radiation in a changing climate. Nature Climate Change, 2014, 4, 434-441.	8.1	277
8	Living on the edge - plants and global change in continental and maritime Antarctica. Global Change Biology, 2003, 9, 1681-1717.	4.2	197
9	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.	1.4	197
10	Antarctic climate change and the environment. Antarctic Science, 2009, 21, 541-563.	0.5	195
11	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.	1.6	177
12	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.	1.8	168
13	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.	2.6	159
14	Solar ultraviolet radiation and ozone depletion-driven climate change: effects on terrestrial ecosystems. Photochemical and Photobiological Sciences, 2014, 14, 88-107.	1.6	158
15	Ozone depletion, ultraviolet radiation, climate change and prospects for a sustainable future. Nature Sustainability, 2019, 2, 569-579.	11.5	156
16	Photosystem II Regulation and Dynamics of the Chloroplast D1 Protein in Arabidopsis Leaves during Photosynthesis and Photoinhibition. Plant Physiology, 1995, 107, 943-952.	2.3	141
17	Electron Partitioning between the Cytochrome and Alternative Pathways in Plant Mitochondria. Plant Physiology, 1995, 109, 829-837.	2.3	141
18	Responses of plants in polar regions to UVB exposure: a metaâ€analysis. Global Change Biology, 2009, 15, 2574-2589.	4.2	137

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19	Combating ecosystem collapse from the tropics to the Antarctic. Global Change Biology, 2021, 27, 1692-1703.	4.2	128
20	Linkages between stratospheric ozone, UV radiation and climate change and their implications for terrestrial ecosystems. Photochemical and Photobiological Sciences, 2019, 18, 681-716.	1.6	125
21	Regulation of Glutamate Dehydrogenase Activity in Relation to Carbon Limitation and Protein Catabolism in Carrot Cell Suspension Cultures. Plant Physiology, 1992, 98, 1190-1195.	2.3	112
22	The interactive effects of stratospheric ozone depletion, UV radiation, and climate change on aquatic ecosystems. Photochemical and Photobiological Sciences, 2019, 18, 717-746.	1.6	108
23	Measurements of the Engagement of Cyanide-Resistant Respiration in the Crassulacean Acid Metabolism Plant KalanchoÃ« daigremontiana with the Use of On-Line Oxygen Isotope Discrimination. Plant Physiology, 1992, 100, 1087-1091.	2.3	100
24	Cell wallâ€bound ultravioletâ€screening compounds explain the high ultraviolet tolerance of the Antarctic moss, Ceratodon purpureus. New Phytologist, 2008, 179, 776-783.	3.5	100
25	Rapid change in East Antarctic terrestrial vegetation in response to regional drying. Nature Climate Change, 2018, 8, 879-884.	8.1	100
26	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.	2.8	95
27	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.	1.6	93
28	The Enzymology and Metabolism of Glutamine, Glutamate, and Asparagine. , 1990, , 121-159.		92
29	Extending Fluspect to simulate xanthophyll driven leaf reflectance dynamics. Remote Sensing of Environment, 2018, 211, 345-356.	4.6	92
30	The Regulation of Electron Partitioning between the Cytochrome and Alternative Pathways in Soybean Cotyledon and Root Mitochondria. Plant Physiology, 1997, 113, 903-911.	2.3	84
31	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.	4.2	82
32	Effects of light on respiration and oxygen isotope fractionation in soybean cotyledons. Plant, Cell and Environment, 2000, 23, 983-989.	2.8	80
33	Wax as a Mechanism for Protection against Photoinhibition - A Study ofCotyledon orbiculata. Botanica Acta, 1993, 106, 307-312.	1.6	77
34	Some like it wet â€" biological characteristics underpinning tolerance of extreme water stress events in Antarctic bryophytes. Functional Plant Biology, 2006, 33, 443.	1.1	77
35	Internal and external photoprotection in developing leaves of the CAM plant Cotyledon orbiculata. Plant, Cell and Environment, 1997, 20, 617-624.	2.8	75
36	The 2019/2020 summer of Antarctic heatwaves. Global Change Biology, 2020, 26, 3178-3180.	4.2	71

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37	Unmanned aircraft system advances health mapping of fragile polar vegetation. Methods in Ecology and Evolution, 2017, 8, 1842-1857.	2.2	69
38	Antarctic Moss Biflavonoids Show High Antioxidant and Ultraviolet-Screening Activity. Journal of Natural Products, 2017, 80, 2224-2231.	1.5	67
39	Contribution of the Alternative Pathway to Respiration during Thermogenesis in Flowers of the Sacred Lotus. Plant Physiology, 2006, 140, 1367-1373.	2.3	66
40	Phylloxera-infested grapevines have reduced chlorophyll and increased photoprotective pigment content â€" can leaf pigment composition aid pest detection?. Functional Plant Biology, 2006, 33, 507.	1.1	66
41	Not just about sunburn â€" the ozone hole's profound effect on climate has significant implications for Southern Hemisphere ecosystems. Global Change Biology, 2015, 21, 515-527.	4.2	66
42	Climate change manipulations show Antarctic flora is more strongly affected by elevated nutrients than water. Global Change Biology, 2006, 12, 1800-1812.	4.2	65
43	Environmental effects of ozone depletion and its interactions with climate change: Progress report, 2016. Photochemical and Photobiological Sciences, 2017, 16, 107-145.	1.6	62
44	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.	4.2	59
45	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.	1.6	59
46	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, 705-714.	2.4	52
47	Antarctic moss stress assessment based on chlorophyll content and leaf density retrieved from imaging spectroscopy data. New Phytologist, 2015, 208, 608-624.	3.5	52
48	Phytoremediation of hydrocarbon contaminants in subantarctic soils: An effective management option. Journal of Environmental Management, 2014, 142, 60-69.	3.8	50
49	Radiocarbon bomb spike reveals biological effects of <scp>A</scp>ntarctic climate change. Global Change Biology, 2012, 18, 301-310.	4.2	49
50	Environmental effects of ozone depletion and its interactions with climate change: progress report, 2015. Photochemical and Photobiological Sciences, 2016, 15, 141-174.	1.6	48
51	Responses of Rainforest Understorey Plants to Excess Light during Sunflecks. Functional Plant Biology, 1997, 24, 17.	1.1	48
52	Evidence That Glutamate Dehydrogenase Plays a Role in the Oxidative Deamination of Glutamate in Seedlings of Zea mays. Functional Plant Biology, 1995, 22, 805.	1.1	48
53	Evidence for deamination by glutamate dehydrogenase in higher plants: Commentary. Canadian Journal of Botany, 1995, 73, 1112-1115.	1.2	47
54	Environmental effects of ozone depletion and its interactions with climate change: progress report, 2011. Photochemical and Photobiological Sciences, 2012, 11, 13-27.	1.6	47

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55	Comparison of solvent regimes for the extraction of photosynthetic pigments from leaves of higher plants. Functional Plant Biology, 2004, 31, 195.	1.1	45
56	Beyond Sham and Cyanide: Opportunities for Studying the Alternative Oxidase in Plant Respiration Using Oxygen Isotope Discrimination.. Functional Plant Biology, 1995, 22, 487.	1.1	45
57	Two Cys or Not Two Cys? That Is the Question; Alternative Oxidase in the Thermogenic Plant Sacred Lotus Â Â. Plant Physiology, 2009, 150, 987-995.	2.3	43
58	Accumulation of DNA damage in Antarctic mosses: correlations with ultravioletâ€B radiation, temperature and turf water content vary among species. Global Change Biology, 2009, 15, 319-329.	4.2	43
59	The Application of the Oxygen-Isotope Technique to Assess Respiratory Pathway Partitioning. , 2005, , 31-42.		41
60	Desiccation protects two Antarctic mosses from ultraviolet-B induced DNA damage. Functional Plant Biology, 2009, 36, 214.	1.1	40
61	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.	1.1	40
62	It Is Hot in the Sun: Antarctic Mosses Have High Temperature Optima for Photosynthesis Despite Cold Climate. Frontiers in Plant Science, 2020, 11, 1178.	1.7	40
63	Civil disobedience movements such as School Strike for the Climate are raising public awareness of the climate change emergency. Global Change Biology, 2020, 26, 1042-1044.	4.2	40
64	Essential outcomes for COP26. Global Change Biology, 2022, 28, 1-3.	4.2	40
65	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, 275-301.	1.6	40
66	Photoprotection enhanced by red cell wall pigments in three East Antarctic mosses. Biological Research, 2018, 51, 49.	1.5	39
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.	1.1	38
68	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.	1.4	37
69	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.	0.5	33
70	Dominating the Antarctic Environment: Bryophytes in a Time of Change. Advances in Photosynthesis and Respiration, 2014, , 309-324.	1.0	32
71	Desiccation tolerance of three moss species from continental Antarctica. Functional Plant Biology, 2000, 27, 379.	1.1	31
72	How Much Does Weather Matter? Effects of Rain and Wind on PM Accumulation by Four Species of Australian Native Trees. Atmosphere, 2019, 10, 633.	1.0	31

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73	In the heat of the night â€“ alternative pathway respiration drives thermogenesis in Philodendron bipinnatifidum. New Phytologist, 2011, 189, 1013-1026.	3.5	30
74	From ecophysiology to phenomics: some implications of photoprotection and shadeâ€“sun acclimation in situ for dynamics of thylakoids in vitro. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 3503-3514.	1.8	30
75	Sunsafe Bryophytes: Photoprotection from Excess and Damaging Solar Radiation. Advances in Photosynthesis and Respiration, 2014, , 113-130.	1.0	30
76	Mechanisms of thermoregulation in plants. Plant Signaling and Behavior, 2008, 3, 595-597.	1.2	29
77	One hundred research questions in conservation physiology for generating actionable evidence to inform conservation policy and practice. , 2021, 9, coab009.		29
78	Moving beyond presence and absence when examining changes in species distributions. Global Change Biology, 2017, 23, 2929-2940.	4.2	28
79	Moss Î´¹³C: an accurate proxy for past water environments in polar regions. Global Change Biology, 2015, 21, 2454-2464.	4.2	27
80	Regulation of Respiration In Vivo. , 2005, , 1-15.		27
81	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.	1.1	26
82	Reframing conservation physiology to be more inclusive, integrative, relevant and forward-looking: reflections and a horizon scan. , 2020, 8, coaa016.		25
83	Response of Tradescantia albiflora to growth irradiance: Change versus changeability. Photosynthesis Research, 2001, 67, 103-112.	1.6	23
84	Genetic structure of East Antarctic populations of the mossCeratodon purpureus. Antarctic Science, 2009, 21, 51-58.	0.5	23
85	Islands in the ice: Potential impacts of habitat transformation on Antarctic biodiversity. Global Change Biology, 2022, 28, 5865-5880.	4.2	22
86	Do Daily and Seasonal Trends in Leaf Solar Induced Fluorescence Reflect Changes in Photosynthesis, Growth or Light Exposure?. Remote Sensing, 2017, 9, 604.	1.8	21
87	Impact of hydrocarbons from a diesel fuel on the germination and early growth of subantarctic plants. Environmental Sciences: Processes and Impacts, 2015, 17, 1238-1248.	1.7	19
88	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.	2.6	18
89	Toxicity of fuelâ€contaminated soil to Antarctic moss and terrestrial algae. Environmental Toxicology and Chemistry, 2015, 34, 2004-2012.	2.2	18
90	Friends with benefits: The effects of vegetative shading on plant survival in a green roof environment. PLoS ONE, 2019, 14, e0225078.	1.1	18

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91	Interpretations of gradients in ?13C value in thick photosynthetic tissues of plants with Crassulacean acid metabolism. Planta, 1993, 190, 271.	1.6	17
92	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.	2.3	17
93	Somatic mutation and the Antarctic ozone hole. Journal of Ecology, 2008, 96, 378-385.	1.9	16
94	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.	1.1	15
95	Functional transition in the floral receptacle of the sacred lotus (Nelumbo nucifera): from thermogenesis to photosynthesis. Functional Plant Biology, 2009, 36, 471.	1.1	14
96	Remote monitoring of dynamic canopy photosynthesis with high time resolution light-induced fluorescence transients. Tree Physiology, 2018, 38, 1302-1318.	1.4	14
97	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.	1.0	14
98	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, 2022, 49, 463-482.	1.1	14
99	Stoichiometric Nightmares: Studies of Photosynthetic O2 and CO2 Exchanges in CAM Plants. Ecological Studies, 1996, , 19-30.	0.4	14
100	Climate change and extreme events are changing the biology of Polar Regions. Global Change Biology, 2022, 28, 5861-5864.	4.2	14
101	Latitudinal Biogeographic Structuring in the Globally Distributed Moss Ceratodon purpureus. Frontiers in Plant Science, 2020, 11, 502359.	1.7	13
102	Semi-Automated Analysis of Digital Photographs for Monitoring East Antarctic Vegetation. Frontiers in Plant Science, 2020, 11, 766.	1.7	13
103	High tolerance of repeated heatwaves in Australian native plants. Austral Ecology, 2019, 44, 597-608.	0.7	12
104	Photosynthesis In Silico. Overcoming the Challenges of Photosynthesis Education Using a Multimedia CD-ROM. Bioscience Education, 2004, 3, 1-14.	0.4	11
105	Native hemiparasite and light effects on photoprotection and photodamage in a native host. Functional Plant Biology, 2015, 42, 1168.	1.1	11
106	Environmental effects of ozone depletion and its interactions with climate change: 2014 assessment : Executive summary. Photochemical and Photobiological Sciences, 2015, 14, 14-18.	1.6	11
107	The composition and oxidative stability of vegetarian omegaâ€3 algal oil nanoemulsions suitable for functional food enrichment. Journal of the Science of Food and Agriculture, 2020, 100, 695-704.	1.7	11
108	Introduction: Climate change biology at the ends of the Earthâ€International Polar year special issue. Global Change Biology, 2009, 15, 1615-1617.	4.2	9

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109	Bayesian methods for comparing species physiological and ecological response curves. Ecological Informatics, 2016, 34, 35-43.	2.3	9
110	Thermotolerance capacities of native and exotic coastal plants will lead to changes in species composition under increased heat waves. , 2017, 5, cox029.		9
111	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.	4.2	9
112	Facilitation, competition and parasitic facilitation amongst invasive and native liana seedlings and a native tree seedling. NeoBiota, 0, 36, 17-38.	1.0	9
113	Xanthophyll cycle, light energy dissipation and electron transport in transgenic tobacco with reduced carbon assimilation capacity. Functional Plant Biology, 2000, 27, 289.	1.1	8
114	Distribution of thermogenic activity in floral tissues of Nelumbo nucifera. Functional Plant Biology, 2010, 37, 1085.	1.1	7
115	Stress in native grasses under ecologically relevant heat waves. PLoS ONE, 2018, 13, e0204906.	1.1	7
116	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.	0.7	5
117	UVâ€B and Drought Stress Influenced Growth and Cellular Compounds of Two Cultivars of Phaseolus vulgaris L. (Fabaceae). Photochemistry and Photobiology, 2021, 97, 166-179.	1.3	5
118	Limitations to photosynthesis in bryophytes: certainties and uncertainties regarding methodology. Journal of Experimental Botany, 2022, , .	2.4	5
119	Introduction: Future fire activity and climate change. Global Change Biology, 2009, 15, 533-544.	4.2	3
120	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, 1852-1866.	1.5	3
121	Moss Î´13 C: Implications for subantarctic palaeohydrological reconstructions. Palaeogeography, Palaeoclimatology, Palaeoecology, 2016, 453, 20-29.	1.0	3
122	Invasive alien lianas have similar allometry to native lianas in temperate forests. Biological Invasions, 2017, 19, 1029-1037.	1.2	3
123	Diatom communities differ among Antarctic moss and lichen vegetation types. Antarctic Science, 2021, 33, 118-132.	0.5	3
124	PRELIMINARY INVESTIGATIONS OF PIGMENT RESPONSES TO PHYLLOXERA INFESTATION. Acta Horticulturae, 2007, , 123-133.	0.1	2
125	A Validated and Accurate Method for Quantifying and Extrapolating Mangrove Above-Ground Biomass Using LiDAR Data. Remote Sensing, 2021, 13, 2763.	1.8	2
126	Foreword to 'Plant and Ecosystem Physiology: Research and Methodology'. Functional Plant Biology, 2006, 33, v.	1.1	0

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127	Development of the Photosynthetic Apparatus in Australian Rainforest Leaves. , 1998, , 3991-3994.		0