Hugh Pritchard

List of Publications by Year
in descending order

97 papers	3,984 citations	109264 35 h-index	138417 58 g-index
99 all docs	99 docs citations	99 times ranked	3137 citing authors

#	Article	IF	Citations
1	The science and economics of ex situ plant conservation. Trends in Plant Science, 2009, 14, 614-621.	4.3	371
2	Glutathione half-cell reduction potential: A universal stress marker and modulator of programmed cell death?. Free Radical Biology and Medicine, 2006, 40, 2155-2165.	1.3	281
3	Traits of recalcitrant seeds in a semi-deciduous tropical forest in Panama: some ecological implications. Functional Ecology, 2005, 19, 874-885.	1.7	136
4	Unlocking plant resources to support food security and promote sustainable agriculture. Plants People Planet, 2020, 2, 421-445.	1.6	130
5	Prediction of Desiccation Sensitivity in Seeds of Woody Species: A Probabilistic Model Based on Two Seed Traits and 104 Species. Annals of Botany, 2006, 97, 667-674.	1.4	124
6	Ecological correlates of seed desiccation tolerance in tropical African dryland trees. American Journal of Botany, 2004, 91, 863-870.	0.8	122
7	Developmental heat sum influences recalcitrant seed traits in Aesculus hippocastanum across Europe. New Phytologist, 2004, 162, 157-166.	3.5	118
8	Water Potential and Embryonic Axis Viability in Recalcitrant Seeds of Quercus rubra. Annals of Botany, 1991, 67, 43-49.	1.4	112
9	Systematic and evolutionary aspects of desiccation tolerance in seeds.. , 2002, , 239-259.		92
10	Ex Situ Conservation of Orchids in a Warming World. Botanical Review, The, 2010, 76, 193-203.	1.7	88
11	Evidence for the absence of enzymatic reactions in the glassy state. A case study of xanthophyll cycle pigments in the desiccation-tolerant moss Syntrichia ruralis. Journal of Experimental Botany, 2013, 64, 3033-3043.	2.4	86
12	Innovative approaches to the preservation of forest trees. Forest Ecology and Management, 2014, 333, 88-98.	1.4	80
13	Native Seed Supply and the Restoration Species Pool. Conservation Letters, 2018, 11, e12381.	2.8	74
14	Seeds of future past: climate change and the thermal memory of plant reproductive traits. Biological Reviews, 2019, 94, 439-456.	4.7	74
15	An oxidative burst of superoxide in embryonic axes of recalcitrant sweet chestnut seeds as induced by excision and desiccation. Physiologia Plantarum, 2008, 133, 131-139.	2.6	73
16	Inter-nucleosomal DNA fragmentation and loss of RNA integrity during seed ageing. Plant Growth Regulation, 2011, 63, 63-72.	1.8	72
17	Spatial and temporal nature of reactive oxygen species production and programmed cell death in elm (<i>Ulmus pumila L.</i>) seeds during controlled deterioration. Plant, Cell and Environment, 2012, 35, 2045-2059.	2.8	71
18	Thermal thresholds as predictors of seed dormancy release and germination timing: altitude-related risks from climate warming for the wild grapevine Vitis vinifera subsp. sylvestris. Annals of Botany, 2012, 110, 1651-1660.	1.4	68

#	Article	IF	Citations
19	Frozen beauty: The cryobiotechnology of orchid diversity. Biotechnology Advances, 2016, 34, 380-403.	6.0	67
20	Reactive oxygen speciesâ€provoked mitochondriaâ€dependent cell death during ageing of elm (<i>Ulmus) Tj ETQq0 0 0 rgBT /Overlock	2.8	66
21	Noninvasive diagnosis of seed viability using infrared thermography. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3912-3917.	3.3	65
22	Seed life span and food security. New Phytologist, 2019, 224, 557-562.	3.5	64
23	Dry architecture: towards the understanding of the variation of longevity in desiccation-tolerant germplasm. Seed Science Research, 2020, 30, 142-155.	0.8	64
24	Volatile fingerprints of seeds of four species indicate the involvement of alcoholic fermentation, lipid peroxidation, and Maillard reactions in seed deterioration during ageing and desiccation stress. Journal of Experimental Botany, 2012, 63, 6519-6530.	2.4	63
25	Cryobiotechnologies: Tools for expanding long-term ex situ conservation to all plant species. Biological Conservation, 2020, 250, 108736.	1.9	62
26	Effects of Desiccation and Cryopreservation on theIn VitroViability of Embryos of the Recalcitrant Seed SpeciesAraucaria hunsteiniiK. Schum. Journal of Experimental Botany, 1986, 37, 1388-1397.	2.4	55
27	Germination of Aesculus hippocastanum seeds following coldâ€induced dormancy loss can be described in relation to a temperatureâ€dependent reduction in base temperature (T b) and thermal time. New Phytologist, 2004, 161, 415-425.	3.5	55
28	Quantal Response of Fruit and Seed Germination Rate inQuercus roburL. andCastanea sativaMill, to Constant Temperatures and Photon Dose. Journal of Experimental Botany, 1990, 41, 1549-1557.	2.4	51
29	Reactive oxygen species induced by cold stratification promote germination of Hedysarum scoparium seeds. Plant Physiology and Biochemistry, 2016, 109, 406-415.	2.8	50
30	Rainfall, not soil temperature, will limit the seed germination of dry forest species with climate change. Oecologia, 2020, 192, 529-541.	0.9	48
31	Changes in the mitochondrial protein profile due to ROS eruption during ageing of elm (Ulmus pumila) Tj ETQq1 1 0.784314 rgBT /Ov	2.8	45
32	Thermal buffering capacity of the germination phenotype across the environmental envelope of the Cactaceae. Global Change Biology, 2017, 23, 5309-5317.	4.2	44
33	Thermal niche for in situ seed germination by Mediterranean mountain streams: model prediction and validation for Rhamnus persicifolia seeds. Annals of Botany, 2013, 112, 1887-1897.	1.4	42
34	Plant species with extremely small populations (PSESP) in China: AÂseed and spore biology perspective. Plant Diversity, 2016, 38, 209-220.	1.8	42
35	Simulating the germination response to diurnally alternating temperatures under climate change scenarios: comparative studies on Carex diandra seeds. Annals of Botany, 2015, 115, 201-209.	1.4	38
36	Mathematically combined half-cell reduction potentials of low-molecular-weight thiols as markers of seed ageing. Free Radical Research, 2011, 45, 1093-1102.	1.5	37

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37	Changes in Trifolium arvense Seed Quality Following Alternating Temperature Treatment using Liquid Nitrogen. Annals of Botany, 1988, 62, 1-11.	1.4	35
38	Rates of Water Loss and Uptake in Recalcitrant Fruits of Quercus Species Are Determined by Pericarp Anatomy. PLoS ONE, 2012, 7, e47368.	1.1	35
39	Biophysical Characteristics of Successful Oilseed Embryo Cryoprotection and Cryopreservation Using Vacuum Infiltration Vitrification: An Innovation in Plant Cell Preservation. PLoS ONE, 2014, 9, e96169.	1.1	34
40	Lack of adequate seed supply is a major bottleneck for effective ecosystem restoration in Chile: friendly amendment to Bannister et al. (2018). Restoration Ecology, 2020, 28, 277-281.	1.4	33
41	Soil thermal buffer and regeneration niche may favour calcareous fen resilience to climate change. Folia Geobotanica, 2015, 50, 293-301.	0.4	32
42	Interchangeable effects of gibberellic acid and temperature on embryo growth, seed germination and epicotyl emergence in <i>Ribes multiflorum</i> ssp. <i>sandalioticum</i> (Grossulariaceae). Plant Biology, 2012, 14, 77-87.	1.8	31
43	The seed germination niche limits the distribution of some plant species in calcareous or siliceous alpine bedrocks. Alpine Botany, 2018, 128, 83-95.	1.1	30
44	Longevity of Preserved Germplasm: The Temperature Dependency of Aging Reactions in Glassy Matrices of Dried Fern Spores. Plant and Cell Physiology, 2019, 60, 376-392.	1.5	26
45	Cardinal temperatures and thermal time in Polaskia Backeb (Cactaceae) species: Effect of projected soil temperature increase and nurse interaction on germination timing. Journal of Arid Environments, 2015, 115, 73-80.	1.2	25
46	Cryopreservation of Seeds. , 1995, 38, 133-144.		24
47	Alternating temperature combined with darkness resets base temperature for germination (<i>T</i>_b) in photoblastic seeds of <i>Lippia</i> and <i>Aloysia</i> (Verbenaceae). Plant Biology, 2017, 19, 41-45.	1.8	24
48	Wheat seed ageing viewed through the cellular redox environment and changes in pH. Free Radical Research, 2019, 53, 641-654.	1.5	23
49	Maximising the use of native seeds in restoration projects. Plant Biology, 2019, 21, 377-379.	1.8	23
50	Quantification of seed oil from species with varying oil content using supercritical fluid extraction. Phytochemical Analysis, 2008, 19, 493-498.	1.2	22
51	Desiccation tolerance, longevity and seed-siring ability of entomophilous pollen from UK native orchid species. Annals of Botany, 2014, 114, 561-569.	1.4	21
52	Lipid Thermal Fingerprints of Long-term Stored Seeds of Brassicaceae. Plants, 2019, 8, 414.	1.6	20
53	Influence of freezable/non-freezable water and sucrose on the viability of Theobroma cacao somatic embryos following desiccation and freezing. Plant Cell Reports, 2009, 28, 883-889.	2.8	19
54	Sequential temperature control of multi-phasic dormancy release and germination of<i>Paeonia corsica</i>seeds. Journal of Plant Ecology, 2016, 9, 464-473.	1.2	19

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55	Modulating role of ROS in re-establishing desiccation tolerance in germinating seeds of Caragana korshinskii Kom.. Journal of Experimental Botany, 2017, 68, 3585-3601.	2.4	19
56	Dissecting seed dormancy and germination in <i>Aquilegia barbaricina</i>, through thermal kinetics of embryo growth. Plant Biology, 2017, 19, 983-993.	1.8	18
57	Comparative in vitro seed germination and seedling development in tropical and temperate epiphytic and temperate terrestrial orchids. Plant Cell, Tissue and Organ Culture, 2020, 143, 619-633.	1.2	17
58	Habitat-linked temperature requirements for fruit germination in Quercus species: A comparative study of Quercus subgenus Cyclobalanopsis (Asian evergreen oaks) and Quercus subgenus Quercus. South African Journal of Botany, 2015, 100, 108-113.	1.2	16
59	Thermal analysis and cryopreservation of seeds of Australian wild Citrus species (rutaceae): Citrus australasica, C. inodora and C. garrawayi. Cryo-Letters, 2009, 30, 268-79.	0.1	16
60	The fluxes of H2O2 and O2 can be used to evaluate seed germination and vigor of Caragana korshinskii. Planta, 2014, 239, 1363-1373.	1.6	15
61	On the origin of giant seeds: the macroevolution of the double coconut (<i>Lodoicea maldivica</i>) and its relatives (Borasseae, Arecaceae). New Phytologist, 2020, 228, 1134-1148.	3.5	15
62	Dry seeds and environmental extremes: consequences for seed lifespan and germination. Functional Plant Biology, 2016, 43, 656.	1.1	13
63	Ecological longevity of <i>Polaskia chende</i> (Cactaceae) seeds in the soil seed bank, seedling emergence and survival. Plant Biology, 2017, 19, 973-982.	1.8	13
64	The rise of plant cryobiotechnology and demise of plant cryopreservation?. Cryobiology, 2018, 85, 160-161.	0.3	13
65	Dry heat exposure increases hydrogen peroxide levels and breaks physiological seed coat-imposed dormancy in Mesembryanthemum crystallinum (Aizoaceae) seeds. Environmental and Experimental Botany, 2018, 155, 272-280.	2.0	13
66	Comparative Seed Morphology of Tropical and Temperate Orchid Species with Different Growth Habits. Plants, 2020, 9, 161.	1.6	13
67	Assessing seed desiccation responses of native trees in the Caribbean. New Forests, 2020, 51, 705-721.	0.7	12
68	Post desiccation germination of mature seeds of tea (Camellia sinensis L.) can be enhanced by pro-oxidant treatment, but partial desiccation tolerance does not ensure survival at âˆ'20Â°C. Plant Science, 2012, 184, 36-44.	1.7	11
69	Dependency of seed dormancy types on embryo traits and environmental conditions in <i><scp>R</scp>ibes</i> species. Plant Biology, 2014, 16, 740-747.	1.8	11
70	Comparison of seed and seedling functional traits in native <i>Helianthus</i> species and the crop <i>H.Âannuus</i> (sunflower). Plant Biology, 2019, 21, 533-543.	1.8	11
71	The Cryobiotechnology of Oaks: An Integration of Approaches for the Long-Term Ex Situ Conservation of Quercus Species. Forests, 2020, 11, 1281.	0.9	11
72	Seed ecology of the geophyte Conopodium majus (Apiaceae), indicator species of ancient woodland understories and oligotrophic meadows. Plant Biology, 2019, 21, 487-497.	1.8	10

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73	Orchid seed stores for sustainable use: a model for future seed-banking activities. Lankesteriana, 2015, 11, .	0.2	10
74	Seed viability and fatty acid profiles of five orchid species before and after ageing. Plant Biology, 2022, 24, 168-175.	1.8	10
75	Seeds as natural capital. Trends in Plant Science, 2022, 27, 139-146.	4.3	9
76	Seed Survival at Low Temperatures: A Potential Selecting Factor Influencing Community Level Changes in High Altitudes under Climate Change. Critical Reviews in Plant Sciences, 2020, 39, 479-492.	2.7	8
77	Lipid Remodeling Confers Osmotic Stress Tolerance to Embryogenic Cells during Cryopreservation. International Journal of Molecular Sciences, 2021, 22, 2174.	1.8	8
78	Regeneration in recalcitrant-seeded species and risks from climate change. , 2022, , 259-273.		8
79	Development of a reliable GC-MS method for fatty acid profiling using direct transesterification of minimal quantities of microscopic orchid seeds. Seed Science Research, 2016, 26, 84-91.	0.8	7
80	Comparative Biology of Cycad Pollen, Seed and Tissue - A Plant Conservation Perspective. Botanical Review, The, 2018, 84, 295-314.	1.7	7
81	Differential Interpretation of Mountain Temperatures by Endospermic Seeds of Three Endemic Species Impacts the Timing of In Situ Germination. Plants, 2020, 9, 1382.	1.6	7
82	Gaseous environment modulates volatile emission and viability loss during seed artificial ageing. Planta, 2021, 253, 106.	1.6	7
83	Global DNA methylation and cellular 5-methylcytosine and H4 acetylated patterns in primary and secondary dormant seeds of Capsella bursa-pastoris (L.) Medik. (shepherdâ€™s purse). Protoplasma, 2022, 259, 595-614.	1.0	6
84	Aspects of Orchid Conservation: Seed and Pollen Storage and their Value in Re-introduction Projects. Universal Journal of Plant Science, 2015, 3, 72-76.	0.3	6
85	Integration of genetic and seed fitness data to the conservation of isolated subpopulations of the Mediterranean plant <i>Malcolmia littorea</i>. Plant Biology, 2018, 20, 203-213.	1.8	5
86	Priority Science for the Preservation of Priority Crops. Indian Journal of Plant Genetic Resources, 2016, 29, 292.	0.1	5
87	Long-term, large scale banking of citrus species embryos: comparisons between cryopreservation and other seed banking temperatures. Cryo-Letters, 2012, 33, 453-64.	0.1	5
88	Orchid Seed and Pollen: A Toolkit for Long-Term Storage, Viability Assessment and Conservation. Springer Protocols, 2018, , 71-98.	0.1	4
89	Pseudophoenix ekmanii (Arecaceae) seeds at suboptimal temperature show reduced imbibition rates and enhanced expression of genes related to germination inhibition. Plant Biology, 2020, 22, 1041-1051.	1.8	4
90	Comparative analyses of extreme dry seed thermotolerance in five Cactaceae species. Environmental and Experimental Botany, 2021, 188, 104514.	2.0	4

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91	Conservation Biology for Seven Palm Species from Diverse Genera. Aliso, 2006, 22, 278-284.	0.4	4
92	Enhancing Food Security through Seed Banking and Use of Wild Plants: Case Studies from the Royal Botanic Gardens, Kew. , 2019, , 32-38.		2
93	Climate change and plant regeneration from seeds in Mediterranean regions of the Northern Hemisphere. , 2022, , 101-114.		2
94	Cryobiotechnological approaches for the preservation of oak (Quercus Sp) embryonic axes.. Cryobiology, 2018, 85, 140.	0.3	1
95	Storage of orchid pollinia with varying lipid thermal fingerprints. Protoplasma, 2020, 257, 1401-1413.	1.0	1
96	Physiological seed dormancy of Ruschia imbricata and Ruschia uitenhagensis (Aizoaceae) is broken by dry heat and unaffected by seasonality. South African Journal of Botany, 2022, 147, 457-466.	1.2	1
97	Seed longevity and cryobiotechnology in the orchid genus cattleya.. Cryo-Letters, 2021, 42, 353-365.	0.1	0