Timothy D Colmer

List of Publications by Year
in descending order

242 papers	20,413 citations	10986 71 h-index	12597 132 g-index
246 all docs	246 docs citations	246 times ranked	13821 citing authors

#	Article	IF	Citations
1	Salinity tolerance in halophytes*. New Phytologist, 2008, 179, 945-963.	7.3	2,141
2	Long-distance transport of gases in plants: a perspective on internal aeration and radial oxygen loss from roots. Plant, Cell and Environment, 2003, 26, 17-36.	5.7	950
3	Flooding tolerance: suites of plant traits in variable environments. Functional Plant Biology, 2009, 36, 665.	2.1	636
4	Plant salt tolerance: adaptations in halophytes. Annals of Botany, 2015, 115, 327-331.	2.9	553
5	Neglecting legumes has compromised human health and sustainable food production. Nature Plants, 2016, 2, 16112.	9.3	529
6	Sodium chloride toxicity and the cellular basis of salt tolerance in halophytes. Annals of Botany, 2015, 115, 419-431.	2.9	516
7	How plants cope with complete submergence. New Phytologist, 2006, 170, 213-226.	7.3	465
8	Use of wild relatives to improve salt tolerance in wheat. Journal of Experimental Botany, 2006, 57, 1059-1078.	4.8	455
9	Response and Adaptation by Plants to Flooding Stress. Annals of Botany, 2005, 96, 501-505.	2.9	400
10	Changes in growth, porosity, and radial oxygen loss from adventitious roots of selected mono- and dicotyledonous wetland species with contrasting types of aerenchyma. Plant, Cell and Environment, 2000, 23, 1237-1245.	5.7	281
11	Short-term waterlogging has long-term effects on the growth and physiology of wheat. New Phytologist, 2002, 153, 225-236.	7.3	261
12	Flooding tolerance in halophytes. New Phytologist, 2008, 179, 964-974.	7.3	247
13	Improving salt tolerance of wheat and barley: future prospects. Australian Journal of Experimental Agriculture, 2005, 45, 1425.	1.0	245
14	Osmotic adjustment and energy limitations to plant growth in saline soil. New Phytologist, 2020, 225, 1091-1096.	7.3	245
15	Salt tolerance in wild Hordeum species is associated with restricted entry of Na+ and Clâˆ' into the shoots. Journal of Experimental Botany, 2005, 56, 2365-2378.	4.8	239
16	Mechanisms of waterlogging tolerance in wheat â€" a review of root and shoot physiology. Plant, Cell and Environment, 2016, 39, 1068-1086.	5.7	229
17	Resequencing of 429 chickpea accessions from 45 countries provides insights into genome diversity, domestication and agronomic traits. Nature Genetics, 2019, 51, 857-864.	21.4	219
18	Regulation of Root Traits for Internal Aeration and Tolerance to Soil Waterlogging-Flooding Stress. Plant Physiology, 2018, 176, 1118-1130.	4.8	218

#	Article	IF	Citations
19	Underwater Photosynthesis of Submerged Plants â€“ Recent Advances and Methods. Frontiers in Plant Science, 2013, 4, 140.	3.6	206
20	The barrier to radial oxygen loss from roots of rice (Oryza sativa L.) is induced by growth in stagnant solution. Journal of Experimental Botany, 1998, 49, 1431-1436.	4.8	200
21	Salt sensitivity in chickpea. Plant, Cell and Environment, 2010, 33, 490-509.	5.7	194
22	Enhanced formation of aerenchyma and induction of a barrier to radial oxygen loss in adventitious roots of <i>Zea nicaraguensis</i> contribute to its waterlogging tolerance as compared with maize (<i>Zea mays</i> ssp. <i>mays</i>). Plant, Cell and Environment, 2012, 35, 1618-1630.	5.7	170
23	Underwater photosynthesis and respiration in leaves of submerged wetland plants: gas films improve CO₂ and O₂ exchange. New Phytologist, 2008, 177, 918-926.	7.3	169
24	Effects of Anoxia on Wheat Seedlings. Journal of Experimental Botany, 1991, 42, 1437-1447.	4.8	167
25	Tissue tolerance: an essential but elusive trait for salt-tolerant crops. Functional Plant Biology, 2016, 43, 1103.	2.1	162
26	Root aeration in rice (Oryza sativa): evaluation of oxygen, carbon dioxide, and ethylene as possible regulators of root acclimatizations. New Phytologist, 2006, 170, 767-778.	7.3	161
27	A comparison of NH4+ and NO3- net fluxes along roots of rice and maize. Plant, Cell and Environment, 1998, 21, 240-246.	5.7	160
28	Conditions Leading to High CO2 (>5â€‰kPa) in Waterloggedâ€“Flooded Soils and Possible Effects on Root Growth and Metabolism. Annals of Botany, 2006, 98, 9-32.	2.9	154
29	Similarity and diversity in adventitious root anatomy as related to root aeration among a range of wetland and dryland grass species. Plant, Cell and Environment, 2002, 25, 441-451.	5.7	151
30	Community recommendations on terminology and procedures used in flooding and low oxygen stress research. New Phytologist, 2017, 214, 1403-1407.	7.3	146
31	Surviving floods: leaf gas films improve O₂ and CO₂ exchange, root aeration, and growth of completely submerged rice. Plant Journal, 2009, 58, 147-156.	5.7	139
32	Ion transport in seminal and adventitious roots of cereals during O2 deficiency. Journal of Experimental Botany, 2011, 62, 39-57.	4.8	136
33	Oxygen dynamics in submerged rice (<i>Oryza sativa</i>). New Phytologist, 2008, 178, 326-334.	7.3	135
34	Differential Solute Regulation in Leaf Blades of Various Ages in Salt-Sensitive Wheat and a Salt-Tolerant Wheat x Lophopyrum elongatum (Host) A. Love Amphiploid. Plant Physiology, 1995, 108, 1715-1724.	4.8	134
35	Regulation of root adaptive anatomical and morphological traits during low soil oxygen. New Phytologist, 2021, 229, 42-49.	7.3	134
36	Measuring Soluble Ion Concentrations (Na+, K+, Clâˆ’) in Salt-Treated Plants. Methods in Molecular Biology, 2010, 639, 371-382.	0.9	132

#	Article	IF	Citations
37	Contrasting dynamics of radial O2-loss barrier induction and aerenchyma formation in rice roots of two lengths. Annals of Botany, 2011, 107, 89-99.	2.9	130
38	Salinity and waterlogging as constraints to saltland pasture production: A review. Agriculture, Ecosystems and Environment, 2009, 129, 349-360.	5.3	129
39	Radial oxygen loss from intact roots of Halophila ovalis as a function of distance behind the root tip and shoot illumination. Aquatic Botany, 1999, 63, 219-228.	1.6	126
40	Ethylene regulates fast apoplastic acidification and expansin A transcription during submergence-induced petiole elongation in Rumex palustris. Plant Journal, 2005, 43, 597-610.	5.7	126
41	Irrigation and fertiliser strategies for minimising nitrogen leaching from turfgrass. Agricultural Water Management, 2006, 80, 160-175.	5.6	118
42	Waterlogging tolerance in the tribe Triticeae: the adventitious roots of Critesion marinum have a relatively high porosity and a barrier to radial oxygen loss. Plant, Cell and Environment, 2001, 24, 585-596.	5.7	111
43	Diversity in root aeration traits associated with waterlogging tolerance in the genus Hordeum. Functional Plant Biology, 2003, 30, 875.	2.1	111
44	Investigating Drought Tolerance in Chickpea Using Genome-Wide Association Mapping and Genomic Selection Based on Whole-Genome Resequencing Data. Frontiers in Plant Science, 2018, 9, 190.	3.6	111
45	Simultaneous Determination by Capillary Gas Chromatography of Organic Acids, Sugars, and Sugar Alcohols in Plant Tissue Extracts as Their Trimethylsilyl Derivatives. Analytical Biochemistry, 1999, 266, 77-84.	2.4	110
46	Salt Tolerance in the HalophyteHalosarcia pergranulatasubsp.pergranulata. Annals of Botany, 1999, 83, 207-213.	2.9	109
47	Waterlogging of Winter Crops at Early and Late Stages: Impacts on Leaf Physiology, Growth and Yield. Frontiers in Plant Science, 2018, 9, 1863.	3.6	108
48	Does anoxia tolerance involve altering the energy currency towards PPi?. Trends in Plant Science, 2008, 13, 221-227.	8.8	107
49	Lotus tenuis tolerates the interactive effects of salinity and waterlogging by 'excluding' Na+ and Cl- from the xylem. Journal of Experimental Botany, 2007, 58, 2169-2180.	4.8	101
50	Heat stress of two tropical seagrass species during low tides â€" impact on underwater net photosynthesis, dark respiration and diel <i>inÂsitu</i> internal aeration. New Phytologist, 2016, 210, 1207-1218.	7.3	101
51	Tolerance of wheat (Triticum aestivum cvs Gamenya and Kite) and triticale (Triticosecale cv. Muir) to waterlogging. New Phytologist, 1992, 120, 335-344.	7.3	99
52	Plant growth and physiology under heterogeneous salinity. Plant and Soil, 2012, 354, 1-19.	3.7	98
53	Waterlogging Tolerance Among a Diverse Range of Trifolium Accessions is Related to Root Porosity, Lateral Root Formation and 'Aerotropic Rooting'. Annals of Botany, 2001, 88, 579-589.	2.9	97
54	Internal aeration of paddy field rice (<i><scp>O</scp>ryza sativa</i>) during complete submergence â€" importance of light and floodwater <scp>O</scp>₂. New Phytologist, 2013, 197, 1193-1203.	7.3	96

#	Article	IF	Citations
55	The potential for developing fodder plants for the salt-affected areas of southern and eastern Australia: an overview. Australian Journal of Experimental Agriculture, 2005, 45, 301.	1.0	92
56	Salt sensitivity in chickpea: Growth, photosynthesis, seed yield components and tissue ion regulation in contrasting genotypes. Journal of Plant Physiology, 2015, 182, 1-12.	3.5	92
57	Assessment of ICCV 2Ã—ÂJG 62 chickpea progenies shows sensitivity of reproduction to salt stress and reveals QTL for seed yield and yield components. Molecular Breeding, 2012, 30, 9-21.	2.1	90
58	Plant tolerance of flooding stress â€" recent advances. Plant, Cell and Environment, 2014, 37, 2211-2215.	5.7	90
59	Oxygen loss from seagrass roots coincides with colonisation of sulphide-oxidising cable bacteria and reduces sulphide stress. ISME Journal, 2019, 13, 707-719.	9.8	89
60	Salinity tolerance and ion accumulation in chickpea (Cicer arietinum L.) subjected to salt stress. Plant and Soil, 2013, 365, 347-361.	3.7	88
61	Role of ethylene in acclimations to promote oxygen transport in roots of plants in waterlogged soils. Plant Science, 2008, 175, 52-58.	3.6	87
62	Salt sensitivity of the vegetative and reproductive stages in chickpea (Cicer arietinum L.): Podding is a particularly sensitive stage. Environmental and Experimental Botany, 2011, 71, 260-268.	4.2	86
63	Changes in physiological and morphological traits of roots and shoots of wheat in response to different depths of waterlogging. Functional Plant Biology, 2001, 28, 1121.	2.1	85
64	Determination of Metabolites by 1H NMR and GC: Analysis for Organic Osmolytes in Crude Tissue Extracts. Analytical Biochemistry, 1993, 214, 260-271.	2.4	84
65	Variable tolerance of wetland tree species to combined salinity and waterlogging is related to regulation of ion uptake and production of organic solutes. New Phytologist, 2006, 169, 123-134.	7.3	83
66	Microarray analysis of laser-microdissected tissues indicates the biosynthesis of suberin in the outer part of roots during formation of a barrier to radial oxygen loss in rice (Oryza sativa). Journal of Experimental Botany, 2014, 65, 4795-4806.	4.8	83
67	Protein Synthesis by Rice Coleoptiles During Prolonged Anoxia: Implications for Glycolysis, Growth and Energy Utilization. Annals of Botany, 2005, 96, 703-715.	2.9	80
68	Growth and ion relations in response to combined salinity and waterlogging in the perennial forage legumes Lotus corniculatus and Lotus tenuis. Plant and Soil, 2006, 289, 369-383.	3.7	79
69	Salt tolerance in a Hordeum marinum-Triticum aestivum amphiploid, and its parents. Journal of Experimental Botany, 2007, 58, 1219-1229.	4.8	79
70	Flooding tolerance of forage legumes. Journal of Experimental Botany, 2017, 68, erw239.	4.8	78
71	Diversity in the genus Melilotus for tolerance to salinity and waterlogging. Plant and Soil, 2008, 304, 89-101.	3.7	77
72	Morphology, Anatomy and Histochemistry of Salicornioideae (Chenopodiaceae) Fruits and Seeds. Annals of Botany, 2005, 95, 917-933.	2.9	75

#	Article	IF	Citations
73	Growth responses of cool-season grain legumes to transient waterlogging. Australian Journal of Agricultural Research, 2007, 58, 406.	1.5	74
74	Interactive effects of Ca2+ and NaCl salinity on the ionic relations and proline accumulation in the primary root tip of Sorghum bicolor. Physiologia Plantarum, 1996, 97, 421-424.	5.2	73
75	Waterlogging affects the growth, development of tillers, and yield of wheat through a severe, but transient, N deficiency. Crop and Pasture Science, 2009, 60, 578.	1.5	73
76	A perspective on underwater photosynthesis in submerged terrestrial wetland plants. AoB PLANTS, 2011, 2011, plr030.	2.3	72
77	Assessment of O₂ diffusivity across the barrier to radial O₂ loss in adventitious roots of <i>Hordeum marinum</i>. New Phytologist, 2008, 179, 405-416.	7.3	70
78	Improving crop salt tolerance using transgenic approaches: An update and physiological analysis. Plant, Cell and Environment, 2020, 43, 2932-2956.	5.7	70
79	Salt sensitivity in chickpea (<scp><i>C</i></scp><i>icer arietinum</i>â€…<scp>L</scp>.): ions in reproductive tissues and yield components in contrasting genotypes. Plant, Cell and Environment, 2015, 38, 1565-1577.	5.7	69
80	Rice leaf hydrophobicity and gas films are conferred by a wax synthesis gene (<i><scp>LGF</scp>1</i>) and contribute to flood tolerance. New Phytologist, 2018, 218, 1558-1569.	7.3	68
81	Aerenchyma formation and radial O2 loss along adventitious roots of wheat with only the apical root portion exposed to O2 deficiency. Plant, Cell and Environment, 2003, 26, 1713-1722.	5.7	67
82	Two key genomic regions harbour QTLs for salinity tolerance in ICCV 2â€‰Ã—â€‰JG 11 derived chickpea (Cicer) Tj ETQq0 0 0 rgBT /O	3.6	67
83	Response of chickpea (<i>Cicer arietinum</i>L.) to terminal drought: leaf stomatal conductance, pod abscisic acid concentration, and seed set. Journal of Experimental Botany, 2017, 68, erw153.	4.8	67
84	Oxygen dynamics during submergence in the halophytic stem succulent Halosarcia pergranulata. Plant, Cell and Environment, 2006, 29, 1388-1399.	5.7	65
85	Response to non-uniform salinity in the root zone of the halophyte Atriplex nummularia: growth, photosynthesis, water relations and tissue ion concentrations. Annals of Botany, 2009, 104, 737-745.	2.9	65
86	Effect of foliar applications of glycinebetaine on stomatal conductance, abscisic acid and solute concentrations in leaves of salt- or drought-stressed tomato. Functional Plant Biology, 1998, 25, 655.	2.1	64
87	Gas film retention and underwater photosynthesis during field submergence of four contrasting rice genotypes. Journal of Experimental Botany, 2014, 65, 3225-3233.	4.8	64
88	Pattern of solutes accumulated during leaf osmotic adjustment as related to duration of water deficit for wheat at the reproductive stage. Plant Physiology and Biochemistry, 2011, 49, 1126-1137.	5.8	63
89	EST-derived SSR markers from defined regions of the wheat genome to identify<i>Lophopyrum elongatum</i>specific loci. Genome, 2005, 48, 811-822.	2.0	61
90	Transfer of the barrier to radial oxygen loss in roots of <i>Hordeum marinum</i> to wheat (<i>Triticum aestivum</i>): evaluation of four <i>H.â€ƒmarinum</i>â€“wheat amphiploids. New Phytologist, 2011, 190, 499-508.	7.3	60

#	Article	IF	Citations
91	Tissue-specific root ion profiling reveals essential roles of the CAX and ACA calcium transport systems in response to hypoxia in Arabidopsis. Journal of Experimental Botany, 2016, 67, 3747-3762.	4.8	60
92	Oxygen deficiency and salinity affect cellâ€specific ion concentrations in adventitious roots of barley (<i><scp>H</scp>ordeum vulgare</i>). New Phytologist, 2015, 208, 1114-1125.	7.3	59
93	Root aeration via aerenchymatous phellem: threeâ€dimensional microâ€imaging and radial O₂ profiles in <i>Melilotus siculus</i>. New Phytologist, 2012, 193, 420-431.	7.3	58
94	Waterlogging tolerance is associated with root porosity in barley (Hordeum vulgare L.). Molecular Breeding, 2015, 35, 1.	2.1	58
95	A major locus involved in the formation of the radial oxygen loss barrier in adventitious roots of teosinte <i>Zea nicaraguensis</i> is located on the shortâ€arm of chromosome 3. Plant, Cell and Environment, 2017, 40, 304-316.	5.7	58
96	Interactive effects of salinity, nitrogen and sulphur on the organic solutes inSpartina alternifloraleaf blades. Journal of Experimental Botany, 1996, 47, 369-375.	4.8	57
97	Tolerance of Hordeum marinum accessions to O2 deficiency, salinity and these stresses combined. Annals of Botany, 2009, 103, 237-248.	2.9	57
98	Plant responses to heterogeneous salinity: growth of the halophyte Atriplex nummularia is determined by the root-weighted mean salinity of the root zone. Journal of Experimental Botany, 2012, 63, 6347-6358.	4.8	56
99	Leaf gas films of <i>Spartina anglica</i> enhance rhizome and root oxygen during tidal submergence. Plant, Cell and Environment, 2011, 34, 2083-2092.	5.7	55
100	Aerenchyma Formation in Plants. Plant Cell Monographs, 2014, , 247-265.	0.4	55
101	Photosynthetic response to globally increasing CO₂ of coâ€occurring temperate seagrass species. Plant, Cell and Environment, 2016, 39, 1240-1250.	5.7	54
102	Vegetative and reproductive growth of salt-stressed chickpea are carbon-limited: sucrose infusion at the reproductive stage improves salt tolerance. Journal of Experimental Botany, 2017, 68, 2001-2011.	4.8	54
103	Differential tolerance to combined salinity and O2 deficiency in the halophytic grasses Puccinellia ciliata and Thinopyrum ponticum: The importance of K+ retention in roots. Environmental and Experimental Botany, 2013, 87, 69-78.	4.2	53
104	Anoxia tolerance in rice seedlings: exogenous glucose improves growth of an anoxia-'intolerant', but not of a 'tolerant' genotype. Journal of Experimental Botany, 2003, 54, 2363-2373.	4.8	52
105	Morphological and Physiological Responses of Rice (Oryza sativa) to Limited Phosphorus Supply in Aerated and Stagnant Solution Culture. Annals of Botany, 2006, 98, 995-1004.	2.9	52
106	Arabidopsisâ€“riceâ€“wheat gene orthologues for Na+ transport and transcript analysis in wheatâ€“L. elongatum aneuploids under salt stress. Molecular Genetics and Genomics, 2007, 277, 199-212.	2.1	49
107	Friend or Foe? Chloride Patterning in Halophytes. Trends in Plant Science, 2019, 24, 142-151.	8.8	49
108	Salt tolerance and avoidance mechanisms at germination of annual pasture legumes: importance for adaptation to saline environments. Plant and Soil, 2009, 315, 241-255.	3.7	48

#	Article	IF	Citations
109	Large number of flowers and tertiary branches, and higher reproductive success increase yields under salt stress in chickpea. European Journal of Agronomy, 2012, 41, 42-51.	4.1	48
110	Soil properties and turf growth on a sandy soil amended with fly ash. Plant and Soil, 2003, 256, 103-114.	3.7	47
111	Salt tolerance in Eucalyptus spp.: identity and response of putative osmolytes. Plant, Cell and Environment, 2005, 28, 772-787.	5.7	47
112	Interactions of Ca2+and NaCl stress on the ion relations and intracellular pH ofSorghum bicolorroot tips: Anin vivo31P-NMR study. Journal of Experimental Botany, 1994, 45, 1037-1044.	4.8	46
113	Tolerance of extreme salinity in two stem-succulent halophytes (Tecticornia species). Functional Plant Biology, 2013, 40, 897.	2.1	46
114	Revealing the roles of GORK channels and NADPH oxidase in acclimation to hypoxia in Arabidopsis. Journal of Experimental Botany, 2017, 68, erw378.	4.8	46
115	Aquatic adventitious root development in partially and completely submerged wetland plants Cotula coronopifolia and Meionectes brownii. Annals of Botany, 2012, 110, 405-414.	2.9	45
116	Linking oxygen availability with membrane potential maintenance and <scp><scp>K</scp>⁺</scp> retention of barley roots: implications for waterlogging stress tolerance. Plant, Cell and Environment, 2014, 37, 2325-2338.	5.7	45
117	Spatio-temporal relief from hypoxia and production of reactive oxygen species during bud burst in grapevine (<i>Vitis vinifera</i>). Annals of Botany, 2015, 116, 703-711.	2.9	44
118	Evidence for downâ€regulation of ethanolic fermentation and K+ effluxes in the coleoptile of rice seedlings during prolonged anoxia. Journal of Experimental Botany, 2001, 52, 1507-1517.	4.8	43
119	Growth of tomato and an ABA-deficient mutant (sitiens) under saline conditions. Physiologia Plantarum, 2003, 117, 58-63.	5.2	43
120	Tolerance of roots to low oxygen: â€˜Anoxicâ€™ cores, the phytoglobin-nitric oxide cycle, and energy or oxygen sensing. Journal of Plant Physiology, 2019, 239, 92-108.	3.5	43
121	Spatial patterns of radial oxygen loss and nitrate net flux along adventitious roots of rice raised in aerated or stagnant solution. Functional Plant Biology, 2002, 29, 1475.	2.1	43
122	Aerenchymatous phellem in hypocotyl and roots enables O₂ transport in <i>Melilotus siculus</i>. New Phytologist, 2011, 190, 340-350.	7.3	42
123	Efficient use of energy in anoxiaâ€tolerant plants with focus on germinating rice seedlings. New Phytologist, 2015, 206, 36-56.	7.3	42
124	Physical gills prevent drowning of many wetland insects, spiders and plants. Journal of Experimental Biology, 2012, 215, 705-709.	1.7	41
125	Rice acclimation to soil flooding: Low concentrations of organic acids can trigger a barrier to radial oxygen loss in roots. Plant, Cell and Environment, 2019, 42, 2183-2197.	5.7	41
126	Simultaneous Analysis of Amino and Organic Acids in Extracts of Plant Leaves astert-Butyldimethylsilyl Derivatives by Capillary Gas Chromatography. Analytical Biochemistry, 1998, 259, 203-211.	2.4	40

#	Article	IF	Citations
127	Crassulacean acid metabolism enhances underwater photosynthesis and diminishes photorespiration in the aquatic plant <i>Isoetes australis</i>. New Phytologist, 2011, 190, 332-339.	7.3	40
128	The barrier to radial oxygen loss from roots of rice (Oryza sativa L.) is induced by growth in stagnant solution. Journal of Experimental Botany, 1998, 49, 1431-1436.	4.8	40
129	Salinity tolerance in chickpea is associated with the ability to â€˜excludeâ€™ Na from leaf mesophyll cells. Journal of Experimental Botany, 2019, 70, 4991-5002.	4.8	38
130	Development of wheatâ€“Lophopyrum elongatum recombinant lines for enhanced sodium â€˜exclusionâ€™ during salinity stress. Theoretical and Applied Genetics, 2009, 119, 1313-1323.	3.6	37
131	The mechanism of improved aeration due to gas films on leaves of submerged rice. Plant, Cell and Environment, 2014, 37, 2433-2452.	5.7	37
132	In situ O2 dynamics in submerged Isoetes australis: varied leaf gas permeability influences underwater photosynthesis and internal O2. Journal of Experimental Botany, 2011, 62, 4691-4700.	4.8	36
133	Oxygen dynamics in a salt-marsh soil and in Suaeda maritima during tidal submergence. Environmental and Experimental Botany, 2013, 92, 73-82.	4.2	36
134	Lateral roots, in addition to adventitious roots, form a barrier to radial oxygen loss in <i>Zea nicaraguensis</i> and a chromosome segment introgression line in maize. New Phytologist, 2021, 229, 94-105.	7.3	35
135	Reduced leaching of nitrate, ammonium, and phosphorus in a sandy soil by fly ash amendment. Soil Research, 2002, 40, 1201.	1.1	34
136	Turfgrass (Cynodon dactylon L.) sod production on sandy soils: II. Effects of irrigation and fertiliser regimes on N leaching. Plant and Soil, 2006, 284, 147-164.	3.7	34
137	Water uptake by roots of Hordeum marinum: formation of a barrier to radial O2 loss does not affect root hydraulic conductivity. Journal of Experimental Botany, 2006, 57, 655-664.	4.8	34
138	Photosynthesis in aquatic adventitious roots of the halophytic stemâ€succulent <i>Tecticornia pergranulata</i> (formerly <i>Halosarcia pergranulata</i>). Plant, Cell and Environment, 2008, 31, 1007-1016.	5.7	34
139	Salinity and waterlogging tolerance amongst accessions of messina (Melilotus siculus). Crop and Pasture Science, 2011, 62, 225.	1.5	34
140	Responses of rice to Fe2+ in aerated and stagnant conditions: growth, root porosity and radial oxygen loss barrier. Functional Plant Biology, 2014, 41, 922.	2.1	34
141	Pattern of Water Use and Seed Yield under Terminal Drought in Chickpea Genotypes. Frontiers in Plant Science, 2017, 8, 1375.	3.6	34
142	Leaf gas films, underwater photosynthesis and plant species distributions in a flood gradient. Plant, Cell and Environment, 2016, 39, 1537-1548.	5.7	33
143	Aquatic adventitious roots of the wetland plant <i>Meionectes brownii</i> can photosynthesize: implications for root function during flooding. New Phytologist, 2011, 190, 311-319.	7.3	32
144	Prioritisation of novel pasture species for use in water-limited agriculture: a case study of Cullen in the Western Australian wheatbelt. Genetic Resources and Crop Evolution, 2011, 58, 83-100.	1.6	32

#	Article	IF	Citations
145	Lotus tenuis tolerates combined salinity and waterlogging: maintaining O2 transport to roots and expression of an NHX1-like gene contribute to regulation of Na+ transport. Physiologia Plantarum, 2010, 139, no-no.	5.2	31
146	Tolerance of combined submergence and salinity in the halophytic stem-succulent Tecticornia pergranulata. Annals of Botany, 2009, 103, 303-312.	2.9	30
147	Physiological Mechanisms of Flooding Tolerance in Rice: Transient Complete Submergence and Prolonged Standing Water. Progress in Botany Fortschritte Der Botanik, 2014, , 255-307.	0.3	30
148	Salt sensitivity in chickpea is determined by sodium toxicity. Planta, 2016, 244, 623-637.	3.2	30
149	Analysis of dimethylsulphoniopropionate (DMSP), betaines and other organic solutes in plant tissue extracts using HPLC. Phytochemical Analysis, 2000, 11, 163-168.	2.4	29
150	Comparisons of annual pasture legumes in growth, ion regulation and root porosity demonstrate that Melilotus siculus has exceptional tolerance to combinations of salinity and waterlogging. Environmental and Experimental Botany, 2012, 77, 175-184.	4.2	29
151	Global patterns of the leaf economics spectrum in wetlands. Nature Communications, 2020, 11, 4519.	12.8	29
152	Waterlogging tolerance and recovery of 10 Lotus species. Australian Journal of Experimental Agriculture, 2008, 48, 480.	1.0	28
153	Does N fertiliser regime influence N leaching and quality of different-aged turfgrass (Pennisetum) Tj ETQq1 1 0.784314 rgBT /Overlock	3.7	28
154	Photosynthetic Performance and Fertility Are Repressed in GmAOX2b Antisense Soybean Â. Plant Physiology, 2010, 152, 1638-1649.	4.8	28
155	Salinity drives host reaction in Phaseolus vulgaris (common bean) to Macrophomina phaseolina. Functional Plant Biology, 2011, 38, 984.	2.1	28
156	Hordeum marinum-wheat amphiploids maintain higher leaf K+:Na+ and suffer less leaf injury than wheat parents in saline conditions. Plant and Soil, 2011, 348, 365-377.	3.7	28
157	Anatomical and biochemical characterisation of a barrier to radial O2 loss in adventitious roots of two contrasting Hordeum marinum accessions. Functional Plant Biology, 2017, 44, 845.	2.1	28
158	Adaptation of Rice to Flooded Soils. Progress in Botany Fortschritte Der Botanik, 2014, , 215-253.	0.3	27
159	Growth responses of Melilotus siculus accessions to combined salinity and root-zone hypoxia are correlated with differences in tissue ion concentrations and not differences in root aeration. Environmental and Experimental Botany, 2015, 109, 89-98.	4.2	27
160	A Review of Warmâ€Season Turfgrass Evapotranspiration, Responses to Deficit Irrigation, and Drought Resistance. Crop Science, 2017, 57, S-98.	1.8	26
161	Drivers of plant traits that allow survival in wetlands. Functional Ecology, 2020, 34, 956-967.	3.6	26
162	Nitrogen Increases Evapotranspiration and Growth of a Warm-Season Turfgrass. Agronomy Journal, 2009, 101, 17-24.	1.8	25

#	Article	IF	Citations
163	Salinization of the soil solution decreases the further accumulation of salt in the root zone of the halophyte <scp><i>Atriplex nummularia</i></scp> Lindl. growing above shallow saline groundwater. Plant, Cell and Environment, 2018, 41, 99-110.	5.7	25
164	Responses by Coleoptiles of Intact Rice Seedlings to Anoxia: K+ Net Uptake from the External Solution and Translocation from the Caryopses. Annals of Botany, 2003, 91, 271-278.	2.9	24
165	Effects of organic acids on the formation of the barrier to radial oxygen loss in roots of Hordeum marinum. Functional Plant Biology, 2014, 41, 187.	2.1	24
166	Effectiveness of Cultural Thatchâ€Mat Controls for Young and Mature Kikuyu Turfgrass. Agronomy Journal, 2009, 101, 67-74.	1.8	23
167	Waterlogging differentially affects yield and its components in wheat, barley, rapeseed and field pea depending on the timing of occurrence. Journal of Agronomy and Crop Science, 2020, 206, 363-375.	3.5	23
168	Crossâ€tolerance for drought, heat and salinity stresses in chickpea (<i>Cicer arietinum</i> L.). Journal of Agronomy and Crop Science, 2020, 206, 405-419.	3.5	23
169	Oxygen Transport, Respiration, and Anaerobic Carbohydrate Catabolism in Roots in Flooded Soils. , 2005, , 137-158.		22
170	Shoot atmospheric contact is of little importance to aeration of deeper portions of the wetland plant <i>Meionectes brownii</i>; submerged organs mainly acquire O₂ from the water column or produce it endogenously in underwater photosynthesis. Plant, Cell and Environment, 2013, 36, 213-223.	5.7	22
171	Variable response of three Trifolium repens ecotypes to soil flooding by seawater. Annals of Botany, 2014, 114, 347-355.	2.9	22
172	Tolerance to partial and complete submergence in the forage legume<i>Melilotus siculus</i>: an evaluation of 15 accessions for petiole hyponastic response and gas-filled spaces, leaf hydrophobicity and gas films, and root phellem. Annals of Botany, 2019, 123, 169-180.	2.9	22
173	Contrasting water relations of three coastal tree species with different exposure to salinity. Physiologia Plantarum, 2006, 127, 360-373.	5.2	21
174	Salinity and waterlogging tolerances in three stem-succulent halophytes (Tecticornia species) from the margins of ephemeral salt lakes. Plant and Soil, 2011, 348, 379-396.	3.7	21
175	Wheat genotypes show contrasting abilities to recover from anoxia in spite of similar anoxic carbohydrate metabolism. Journal of Plant Physiology, 2007, 164, 1605-1611.	3.5	20
176	Novel Salinity Tolerance Loci in Chickpea Identified in Glasshouse and Field Environments. Frontiers in Plant Science, 2021, 12, 667910.	3.6	20
177	Regulation of intracellular pH during anoxia in rice coleoptiles in acidic and near neutral conditions. Journal of Experimental Botany, 2009, 60, 2119-2128.	4.8	19
178	A GmAOX2b antisense gene compromises vegetative growth and seed production in soybean. Planta, 2012, 236, 199-207.	3.2	19
179	Waterlogging tolerance, tissue nitrogen and oxygen transport in the forage legume Melilotus siculus: a comparison of nodulated and nitrate-fed plants. Annals of Botany, 2018, 121, 699-709.	2.9	19
180	Root-zone hypoxia reduces growth of the tropical forage grass Urochloa humidicola in high-nutrient but not low-nutrient conditions. Annals of Botany, 2019, 124, 1019-1032.	2.9	19

#	Article	IF	Citations
181	Intermittent anoxia induces oxidative stress in wheat seminal roots: assessment of the antioxidant defence system, lipid peroxidation and tissue solutes. Functional Plant Biology, 2005, 32, 495.	2.1	18
182	Improvement of salt and waterlogging tolerance in wheat: comparative physiology of Hordeum marinum-Triticum aestivum amphiploids with their H. marinum and wheat parents. Functional Plant Biology, 2013, 40, 1168.	2.1	18
183	Characterization of the multigene family TaHKT 2;1 in bread wheat and the role of gene members in plant Na+ and K+status. BMC Plant Biology, 2014, 14, 159.	3.6	18
184	Effect of Timing and Duration of Soil Saturation on Soilborne <i>Pythium</i> Diseases of Common Bean (<i>Phaseolus vulgaris</i>). Plant Disease, 2015, 99, 112-118.	1.4	18
185	Submergence tolerance in Hordeum marinum: dissolved CO2 determines underwater photosynthesis and growth. Functional Plant Biology, 2010, 37, 524.	2.1	17
186	Granular wetting agents ameliorate water repellency in turfgrass of contrasting soil organic matter content. Plant and Soil, 2011, 348, 411-424.	3.7	17
187	Root O₂ consumption, CO₂ production and tissue concentration profiles in chickpea, as influenced by environmental hypoxia. New Phytologist, 2020, 226, 373-384.	7.3	17
188	Turfgrass (Cynodon dactylon L.) sod production on sandy soils: I. Effects of irrigation and fertiliser regimes on growth and quality. Plant and Soil, 2006, 284, 129-145.	3.7	16
189	Evaluation of a soil moisture sensor to reduce water and nutrient leaching in turfgrass (Cynodon) Tj ETQq1 1 0.784314 rgBT /Overlock 1	1.0	16
190	Leaf gas films delay salt entry and enhance underwater photosynthesis and internal aeration of <scp><i>M</i></scp><i>elilotus siculus</i> submerged in saline water. Plant, Cell and Environment, 2014, 37, 2339-2349.	5.7	16
191	Diel O2 Dynamics in Partially and Completely Submerged Deepwater Rice: Leaf Gas Films Enhance Internodal O2 Status, Influence Gene Expression and Accelerate Stem Elongation for â€˜Snorkellingâ€™ during Submergence. Plant and Cell Physiology, 2019, 60, 973-985.	3.1	16
192	Na+ and/or Clâˆ’ Toxicities Determine Salt Sensitivity in Soybean (Glycine max (L.) Merr.), Mungbean (Vigna radiata (L.) R. Wilczek), Cowpea (Vigna unguiculata (L.) Walp.), and Common Bean (Phaseolus) Tj ETQq0 0 0 rgBT /Overlock 10 T	4.1	16
193	The barrier to radial oxygen loss impedes the apoplastic entry of iron into the roots of<i>Urochloa humidicola</i>. Journal of Experimental Botany, 2021, 72, 3279-3293.	4.8	16
194	Variation in salinity tolerance, early shoot mass and shoot ion concentrations within Lotus tenuis: towards a perennial pasture legume for saline land. Crop and Pasture Science, 2010, 61, 379.	1.5	15
195	Visualisation by high resolution synchrotron X-ray phase contrast micro-tomography of gas films on submerged superhydrophobic leaves. Journal of Structural Biology, 2014, 188, 61-70.	2.8	15
196	Life at the boundary: photosynthesis at the soilâ€“fluid interface. A synthesis focusing on mosses: Table 1.. Journal of Experimental Botany, 2016, 67, 1613-1623.	4.8	15
197	CO2 and O2 dynamics in leaves of aquatic plants with C3 or CAM photosynthesis â€“ application of a novel CO2 microsensor. Annals of Botany, 2018, 122, 605-615.	2.9	15
198	Sensitivity of chickpea and faba bean to rootâ€zone hypoxia, elevated ethylene, and carbon dioxide. Plant, Cell and Environment, 2019, 42, 85-97.	5.7	15

#	Article	IF	Citations
199	Manipulation of ethanol production in anoxic rice coleoptiles by exogenous glucose determines rates of ion fluxes and provides estimates of energy requirements for cell maintenance during anoxia. Journal of Experimental Botany, 2005, 56, 2453-2463.	4.8	14
200	The influence of NaCl salinity and hypoxia on aspects of growth in Trifolium species. Crop and Pasture Science, 2009, 60, 71.	1.5	14
201	Microsite and litter cover effects on seed banks vary with seed size and dispersal mechanisms: implications for revegetation of degraded saline land. Plant Ecology, 2012, 213, 1145-1155.	1.6	14
202	Tolerance of submerged germinating rice to 50â€“200â€‰<scp>m<i>M</i> NaCl</scp> in aerated solution. Physiologia Plantarum, 2013, 149, 222-233.	5.2	14
203	Hydraulic redistribution: limitations for plants in saline soils. Plant, Cell and Environment, 2017, 40, 2437-2446.	5.7	14
204	Drought tolerances of three stem-succulent halophyte species of an inland semiarid salt lake system. Functional Plant Biology, 2014, 41, 1230.	2.1	13
205	Salinity tolerances of three succulent halophytes (Tecticornia spp.) differentially distributed along a salinity gradient. Functional Plant Biology, 2016, 43, 739.	2.1	13
206	Energetics of acclimation to NaCl by submerged, anoxic rice seedlings. Annals of Botany, 2017, 119, 129-142.	2.9	13
207	Leaf gas films contribute to rice (<i>Oryza sativa</i>) submergence tolerance during saline floods. Plant, Cell and Environment, 2018, 41, 885-897.	5.7	13
208	Plant responses to heterogeneous salinity: agronomic relevance and research priorities. Annals of Botany, 2022, 129, 499-518.	2.9	13
209	Root Physiology â€“ from Gene to Function. Plant and Soil, 2005, 274, vii-xv.	3.7	12
210	Development and use of a variable-speed lateral boom irrigation system to define water requirements of 11 turfgrass genotypes under field conditions. Australian Journal of Experimental Agriculture, 2007, 47, 86.	1.0	12
211	Ameliorating water repellency under turfgrass of contrasting soil organic matter content: Effect of wetting agent formulation and application frequency. Agricultural Water Management, 2011, 99, 1-7.	5.6	12
212	Tolerance and recovery of the annual pasture legumes Melilotus siculus, Trifolium michelianum and Medicago polymorpha to soil salinity, soil waterlogging and the combination of these stresses. Plant and Soil, 2019, 444, 267-280.	3.7	12
213	pH regulation in anoxic rice coleoptiles at pH 3.5: biochemical pHstats and net H+ influx in the absence and presence of NO3âˆ'. Journal of Experimental Botany, 2012, 63, 1969-1983.	4.8	11
214	Root phenotypes of dwarf and â€œovergrowthâ€• SLN1 barley mutants, and implications for hypoxic stress tolerance. Journal of Plant Physiology, 2019, 234-235, 60-70.	3.5	11
215	Salt tolerance in relation to elemental concentrations in leaf cell vacuoles and chloroplasts of a C₄ monocotyledonous halophyte. Plant, Cell and Environment, 2022, 45, 1490-1506.	5.7	11
216	Response of Mungbean (cvs. Celera II-AU and Jade-AU) and Blackgram (cv. Onyx-AU) to Transient Waterlogging. Frontiers in Plant Science, 2021, 12, 709102.	3.6	10

#	Article	IF	Citations
217	Salt accumulation and depletion in the root-zone of the halophyte Atriplex nummularia Lindl.: influence of salinity, leaf area and plant water use. Plant and Soil, 2014, 382, 31-41.	3.7	9
218	Evaluation of root porosity and radial oxygen loss of disomic addition lines of Hordeum marinum in wheat. Functional Plant Biology, 2017, 44, 400.	2.1	9
219	Solute Regulation by Calcium in Salt-Stressed Plants. , 1994, , 443-461.		9
220	Waterlogging tolerance of grass pea (<i>Lathyrus sativus</i> L.) at germination related to country of origin. Experimental Agriculture, 2020, 56, 837-850.	0.9	9
221	Alternative oxidase, a determinant of plant gametophyte fitness and fecundity. Plant Signaling and Behavior, 2010, 5, 604-606.	2.4	8
222	Root length is proxy for high-throughput screening of waterlogging tolerance in Urochloa spp. grasses. Functional Plant Biology, 2021, 48, 411.	2.1	8
223	Phenotypic variation for productivity and drought tolerance is widespread in germplasm collections of Australian Cullen species. Crop and Pasture Science, 2012, 63, 656.	1.5	7
224	Drying half of the root-zone from mid fruit growth to maturity in â€˜Hassâ€™ avocado (Persea americana) Tj ETQq0 0 0 rgBT /Overlock 437-442.	3.6	6
225	Development of Melilotus siculus â€“ A New Salt and Waterlogging-tolerant Annual Fodder Legume Species for Mediterranean-type Climates. , 2010, , 131-135.		6
226	Contrasting submergence tolerance in two species of stem-succulent halophytes is not determined by differences in stem internal oxygen dynamics. Annals of Botany, 2015, 115, 409-418.	2.9	6
227	Estimation of genetic components of variation for salt tolerance in chickpea using the generation mean analysis. Euphytica, 2011, 182, 73.	1.2	5
228	Opportunistic Mediterranean agriculture â€“ Using ephemeral pasture legumes to utilize summer rainfall. Agricultural Systems, 2013, 120, 76-84.	6.1	5
229	Differential responses of three coastal grassland species to seawater flooding. Journal of Plant Ecology, 0, , rtw037.	2.3	5
230	Uptake of inorganic phosphorus by the aquatic plant Isoetes australis inhabiting oligotrophic vernal rock pools. Aquatic Botany, 2017, 138, 64-73.	1.6	5
231	Tolerance of four grain legume species to waterlogging, hypoxia and anoxia at germination and recovery. AoB PLANTS, 2021, 13, plab052.	2.3	5
232	Dryland field validation of genotypic variation in salt tolerance of chickpea (Cicer arietinum L.) determined under controlled conditions. Field Crops Research, 2022, 276, 108392.	5.1	5
233	Microsite and litter cover effects on soil conditions and seedling recruitment in a saline agricultural system. Plant and Soil, 2011, 348, 397-409.	3.7	4
234	Approaches to scheduling water allocations to kikuyugrass grown on a water repellent soil in a drying-climate. Agricultural Water Management, 2020, 230, 105957.	5.6	4

#	Article	IF	Citations
235	Interactive effects of Ca2+ and NaCl salinity on the ionic relations and proline accumulation in the primary root tip of Sorghum bicolor. Physiologia Plantarum, 1996, 97, 421-424.	5.2	4
236	The genetics of vigour-related traits in chickpea (Cicer arietinum L.): insights from genomic data. Theoretical and Applied Genetics, 2021, 135, 107.	3.6	4
237	Spectral detection of stress-related pigments in salt-lake succulent halophytic shrubs. International Journal of Applied Earth Observation and Geoinformation, 2016, 52, 457-463.	2.8	3
238	Submergence tolerance and recovery in Lotus: Variation among fifteen accessions in response to partial and complete submergence. Journal of Plant Physiology, 2020, 249, 153180.	3.5	3
239	Underwater Photosynthesis and Internal Aeration of Submerged Terrestrial Wetland Plants. Plant Cell Monographs, 2014, , 315-327.	0.4	3
240	Effects on Growth and Development of Individual Chromosomes from Slow-growing Lophopyrum elongatum LÃ¶ve when Incorporated into Bread Wheat (Triticum aestivum L.). Annals of Botany, 2001, 88, 215-223.	2.9	2
241	Physiological Adaptations to Wetland Habitats. , 2018, , 383-394.		0
242	Physiological Adaptations to Wetland Habitats. , 2016, , 1-12.		0