

Ole Pedersen

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2791207/publications.pdf>

Version: 2024-02-01

122
papers

6,394
citations

66343

42
h-index

74163

75
g-index

125
all docs

125
docs citations

125
times ranked

4965
citing authors

#	ARTICLE	IF	CITATIONS
1	The potential role of plant oxygen and sulphide dynamics in die-off events of the tropical seagrass, <i>Thalassia testudinum</i> . <i>Journal of Ecology</i> , 2005, 93, 148-158.	4.0	252
2	Mechanisms of waterlogging tolerance in wheat – a review of root and shoot physiology. <i>Plant, Cell and Environment</i> , 2016, 39, 1068-1086.	5.7	229
3	Meristematic oxygen variability in eelgrass (<i>Zostera marina</i>). <i>Limnology and Oceanography</i> , 2003, 48, 210-216.	3.1	225
4	Regulation of Root Traits for Internal Aeration and Tolerance to Soil Waterlogging-Flooding Stress. <i>Plant Physiology</i> , 2018, 176, 1118-1130.	4.8	218
5	Sulphide intrusion in eelgrass (<i>Zostera marina</i> L.). <i>Plant, Cell and Environment</i> , 2004, 27, 595-602.	5.7	214
6	Underwater Photosynthesis of Submerged Plants – Recent Advances and Methods. <i>Frontiers in Plant Science</i> , 2013, 4, 140.	3.6	206
7	Molecular characterization of the submergence response of the <i>Arabidopsis thaliana</i> ecotype Columbia. <i>New Phytologist</i> , 2011, 190, 457-471.	7.3	184
8	Oxygen dynamics in the rhizosphere of <i>Cymodocea rotundata</i> . <i>Marine Ecology - Progress Series</i> , 1998, 169, 283-288.	1.9	183
9	Underwater photosynthesis and respiration in leaves of submerged wetland plants: gas films improve CO ₂ and O ₂ exchange. <i>New Phytologist</i> , 2008, 177, 918-926.	7.3	169
10	Microsensor analysis of oxygen and pH in the rice rhizosphere under field and laboratory conditions. <i>Biology and Fertility of Soils</i> , 1999, 29, 379-385.	4.3	160
11	Community recommendations on terminology and procedures used in flooding and low oxygen stress research. <i>New Phytologist</i> , 2017, 214, 1403-1407.	7.3	146
12	Velocity gradients and turbulence around macrophyte stands in streams. <i>Freshwater Biology</i> , 1999, 42, 315-328.	2.4	143
13	Surviving floods: leaf gas films improve O ₂ and CO ₂ exchange, root aeration, and growth of completely submerged rice. <i>Plant Journal</i> , 2009, 58, 147-156.	5.7	139
14	An apical hypoxic niche sets the pace of shoot meristem activity. <i>Nature</i> , 2019, 569, 714-717.	27.8	137
15	Oxygen dynamics in submerged rice (<i>Oryza sativa</i>). <i>New Phytologist</i> , 2008, 178, 326-334.	7.3	135
16	Regulation of root adaptive anatomical and morphological traits during low soil oxygen. <i>New Phytologist</i> , 2021, 229, 42-49.	7.3	134
17	Two <i>Rumex</i> Species from Contrasting Hydrological Niches Regulate Flooding Tolerance through Distinct Mechanisms. <i>Plant Cell</i> , 2013, 25, 4691-4707.	6.6	133
18	Diel Pulses of O ₂ and CO ₂ in Sandy Lake Sediments Inhabited by <i>Lobelia Dortmanna</i> . <i>Ecology</i> , 1995, 76, 1536-1545.	3.2	127

#	ARTICLE	IF	CITATIONS
19	Natural variation of submergence tolerance among <i>Arabidopsis thaliana</i> accessions. <i>New Phytologist</i> , 2011, 190, 299-310.	7.3	114
20	Chironomids (Diptera) and oxygen regulatory capacity: An experimental approach to paleolimnological interpretation. <i>Limnology and Oceanography</i> , 2004, 49, 1549-1559.	3.1	105
21	Heat stress of two tropical seagrass species during low tides – impact on underwater net photosynthesis, dark respiration and diel internal aeration. <i>New Phytologist</i> , 2016, 210, 1207-1218.	7.3	101
22	Internal aeration of paddy field rice (<i>Oryza sativa</i>) during complete submergence – importance of light and floodwater. <i>New Phytologist</i> , 2013, 197, 1193-1203.	7.3	96
23	Contrasting Oxygen Dynamics in the Freshwater Isoetid <i>Lobelia dortmanna</i> and the Marine Seagrass <i>Zostera marina</i> . <i>Annals of Botany</i> , 2005, 96, 613-623.	2.9	92
24	Acclimation of a terrestrial plant to submergence facilitates gas exchange under water. <i>Plant, Cell and Environment</i> , 2004, 27, 1281-1287.	5.7	81
25	Catchment properties and the photosynthetic trait composition of freshwater plant communities. <i>Science</i> , 2019, 366, 878-881.	12.6	80
26	Respiration of midges (Diptera; Chironomidae) in British Columbian lakes: oxygen regulation, temperature and their role as palaeo-indicators. <i>Freshwater Biology</i> , 2008, 53, 593-602.	2.4	77
27	A perspective on underwater photosynthesis in submerged terrestrial wetland plants. <i>AoB PLANTS</i> , 2011, 2011, plr030.	2.3	72
28	Rice leaf hydrophobicity and gas films are conferred by a wax synthesis gene (<i>LGF1</i>) and contribute to flood tolerance. <i>New Phytologist</i> , 2018, 218, 1558-1569.	7.3	68
29	Oxygen dynamics during submergence in the halophytic stem succulent <i>Halosarcia pergranulata</i> . <i>Plant, Cell and Environment</i> , 2006, 29, 1388-1399.	5.7	65
30	Submergence-induced leaf acclimation in terrestrial species varying in flooding tolerance. <i>New Phytologist</i> , 2007, 176, 337-345.	7.3	64
31	Gas film retention and underwater photosynthesis during field submergence of four contrasting rice genotypes. <i>Journal of Experimental Botany</i> , 2014, 65, 3225-3233.	4.8	64
32	Long-Distance Water Transport in Aquatic Plants. <i>Plant Physiology</i> , 1993, 103, 1369-1375.	4.8	63
33	Flooding and low oxygen responses in plants. <i>Functional Plant Biology</i> , 2017, 44, iii.	2.1	62
34	Water transport in submerged macrophytes. <i>Aquatic Botany</i> , 1993, 44, 385-406.	1.6	60
35	Oxygen deficiency and salinity affect cell-specific ion concentrations in adventitious roots of barley (<i>Hordeum vulgare</i>). <i>New Phytologist</i> , 2015, 208, 1114-1125.	7.3	59
36	Root aeration via aerenchymatous phellem: three-dimensional micro-imaging and radial oxygen profiles in <i>Melilotus siculus</i> . <i>New Phytologist</i> , 2012, 193, 420-431.	7.3	58

#	ARTICLE	IF	CITATIONS
37	Sediment Resuspension and Deposition on Seagrass Leaves Impedes Internal Plant Aeration and Promotes Phytotoxic H ₂ S Intrusion. <i>Frontiers in Plant Science</i> , 2017, 8, 657.	3.6	56
38	Leaf gas films of <i>Spartina anglica</i> enhance rhizome and root oxygen during tidal submergence. <i>Plant, Cell and Environment</i> , 2011, 34, 2083-2092.	5.7	55
39	Photosynthetic response to globally increasing CO ₂ of co-occurring temperate seagrass species. <i>Plant, Cell and Environment</i> , 2016, 39, 1240-1250.	5.7	54
40	Adaptations of Submerged <i>Lobelia dortmanna</i> to Aerial Life Form: Morphology, Carbon Sources and Oxygen Dynamics. <i>Oikos</i> , 1992, 65, 89.	2.7	53
41	Key root traits of Poaceae for adaptation to soil water gradients. <i>New Phytologist</i> , 2021, 229, 3133-3140.	7.3	49
42	Oxygen Movement in Seagrasses. , 0, , 255-270.		48
43	Flow velocity affects internal oxygen conditions in the seagrass <i>Cymodocea nodosa</i> . <i>Aquatic Botany</i> , 2005, 83, 239-247.	1.6	45
44	Sulfide intrusion in the tropical seagrasses <i>Thalassia testudinum</i> and <i>Syringodium filiforme</i> . <i>Estuarine, Coastal and Shelf Science</i> , 2009, 85, 319-326.	2.1	42
45	A multidisciplinary approach to understanding the recent and historical occurrence of the freshwater plant, <i>Littorella uniflora</i> . <i>Freshwater Biology</i> , 2006, 51, 865-877.	2.4	41
46	Physical gills prevent drowning of many wetland insects, spiders and plants. <i>Journal of Experimental Biology</i> , 2012, 215, 705-709.	1.7	41
47	Rice acclimation to soil flooding: Low concentrations of organic acids can trigger a barrier to radial oxygen loss in roots. <i>Plant, Cell and Environment</i> , 2019, 42, 2183-2197.	5.7	41
48	Crassulacean acid metabolism enhances underwater photosynthesis and diminishes photorespiration in the aquatic plant <i>Isoetes australis</i> . <i>New Phytologist</i> , 2011, 190, 332-339.	7.3	40
49	Sulfur cycling and sulfide intrusion in mixed Southeast Asian tropical seagrass meadows. <i>Botanica Marina</i> , 2006, 49, .	1.2	38
50	Transpiration does not control growth and nutrient supply in the amphibious plant <i>Mentha aquatica</i> . <i>Plant, Cell and Environment</i> , 1997, 20, 117-123.	5.7	37
51	The mechanism of improved aeration due to gas films on leaves of submerged rice. <i>Plant, Cell and Environment</i> , 2014, 37, 2433-2452.	5.7	37
52	In situ O ₂ dynamics in submerged <i>Isoetes australis</i> : varied leaf gas permeability influences underwater photosynthesis and internal O ₂ . <i>Journal of Experimental Botany</i> , 2011, 62, 4691-4700.	4.8	36
53	Oxygen dynamics in a salt-marsh soil and in <i>Suaeda maritima</i> during tidal submergence. <i>Environmental and Experimental Botany</i> , 2013, 92, 73-82.	4.2	36
54	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. <i>New Phytologist</i> , 2021, 229, 94-105.	7.3	35

#	ARTICLE	IF	CITATIONS
55	Through-flow of water in leaves of a submerged plant is influenced by the apical opening. <i>Planta</i> , 1997, 202, 43-50.	3.2	33
56	Role of a groundwater-lake interface in controlling seepage of water and nitrate. <i>Journal of Hydrology</i> , 2014, 517, 791-802.	5.4	33
57	Leaf gas films, underwater photosynthesis and plant species distributions in a flood gradient. <i>Plant, Cell and Environment</i> , 2016, 39, 1537-1548.	5.7	33
58	Five decades of dramatic changes in submerged vegetation in Lake Constance. <i>Aquatic Botany</i> , 2018, 144, 31-37.	1.6	33
59	Acropetal Water Transport in Submerged Plants. <i>Botanica Acta</i> , 1994, 107, 61-65.	1.6	32
60	Title is missing!. <i>Hydrobiologia</i> , 1997, 350, 1-11.	2.0	32
61	Aquatic adventitious roots of the wetland plant <i>Meionectes brownii</i> can photosynthesize: implications for root function during flooding. <i>New Phytologist</i> , 2011, 190, 311-319.	7.3	32
62	Physiology, gene expression, and metabolome of two wheat cultivars with contrasting submergence tolerance. <i>Plant, Cell and Environment</i> , 2018, 41, 1632-1644.	5.7	32
63	Tolerance of combined submergence and salinity in the halophytic stem-succulent <i>Tecticornia pergranulata</i> . <i>Annals of Botany</i> , 2009, 103, 303-312.	2.9	30
64	Global patterns of the leaf economics spectrum in wetlands. <i>Nature Communications</i> , 2020, 11, 4519.	12.8	29
65	Influence of quantity and lability of sediment organic matter on the biomass of two isoetids, <i>Littorella uniflora</i> and <i>Echinodorus repens</i> . <i>Freshwater Biology</i> , 2011, 56, 939-951.	2.4	28
66	Partial versus complete submergence: snorkelling aids root aeration in <i>Rumex palustris</i> but not in <i>Rumex acetosa</i> . <i>Plant, Cell and Environment</i> , 2014, 37, 2381-2390.	5.7	28
67	Hypersalinity as a trigger of seagrass (<i>Thalassia testudinum</i>) die-off events in Florida Bay: Evidence based on shoot meristem O ₂ and H ₂ S dynamics. <i>Journal of Experimental Marine Biology and Ecology</i> , 2018, 504, 47-52.	1.5	27
68	Drivers of plant traits that allow survival in wetlands. <i>Functional Ecology</i> , 2020, 34, 956-967.	3.6	26
69	Stable isotopes reveal that chironomids occupy several trophic levels within West Greenland lakes: Implications for food web studies. <i>Limnology and Oceanography</i> , 2013, 58, 1023-1034.	3.1	25
70	Keeping the shoot above water - submergence triggers antithetical growth responses in stems and petioles of watercress (<i>Nasturtium officinale</i>). <i>New Phytologist</i> , 2021, 229, 140-155.	7.3	25
71	Microsensors in plant biology: in vivo visualization of inorganic analytes with high spatial and/or temporal resolution. <i>Journal of Experimental Botany</i> , 2020, 71, 3941-3954.	4.8	24
72	Interactions between light and CO ₂ enhance the growth of <i>Riccia fluitans</i> . <i>Hydrobiologia</i> , 2002, 477, 163-170.	2.0	22

#	ARTICLE	IF	CITATIONS
73	Shoot atmospheric contact is of little importance to aeration of deeper portions of the wetland plant <i>Meionectes brownii</i> ; submerged organs mainly acquire O_2 from the water column or produce it endogenously in underwater photosynthesis. <i>Plant, Cell and Environment</i> , 2013, 36, 213-223.	5.7	22
74	Turf algal epiphytes metabolically induce local pH increase, with implications for underlying coralline algae under ocean acidification. <i>Estuarine, Coastal and Shelf Science</i> , 2015, 164, 463-470.	2.1	22
75	Eelgrass fairy rings: sulfide as inhibiting agent. <i>Marine Biology</i> , 2014, 161, 351-358.	1.5	21
76	Novel functions of the root barrier to radial oxygen loss – radial diffusion resistance to H_2 and water vapour. <i>New Phytologist</i> , 2021, 231, 1365-1376.	7.3	21
77	Groundwater seepage stimulates the growth of aquatic macrophytes. <i>Freshwater Biology</i> , 2012, 57, 907-921.	2.4	20
78	Waterlogging tolerance, tissue nitrogen and oxygen transport in the forage legume <i>Melilotus siculus</i> : a comparison of nodulated and nitrate-fed plants. <i>Annals of Botany</i> , 2018, 121, 699-709.	2.9	19
79	Coupled UV-exposure and microbial decomposition improves measures of organic matter degradation and light models in humic lake. <i>Ecological Engineering</i> , 2018, 118, 191-200.	3.6	19
80	Sustainable management of shellfish resources in Bandon Bay, Gulf of Thailand. <i>Journal of Coastal Conservation</i> , 2003, 9, 135.	1.6	18
81	Nutrient concentrations in a <i>Littorella uniflora</i> community at higher CO ₂ concentrations and reduced light intensities. <i>Freshwater Biology</i> , 2005, 50, 1178-1189.	2.4	17
82	Submergence tolerance in <i>Hordeum marinum</i> : dissolved CO ₂ determines underwater photosynthesis and growth. <i>Functional Plant Biology</i> , 2010, 37, 524.	2.1	17
83	Root O_2 consumption, CO ₂ production and tissue concentration profiles in chickpea, as influenced by environmental hypoxia. <i>New Phytologist</i> , 2020, 226, 373-384.	7.3	17
84	Leaf gas films delay salt entry and enhance underwater photosynthesis and internal aeration of <i>Melilotus siculus</i> submerged in saline water. <i>Plant, Cell and Environment</i> , 2014, 37, 2339-2349.	5.7	16
85	Diel O ₂ Dynamics in Partially and Completely Submerged Deepwater Rice: Leaf Gas Films Enhance Internodal O ₂ Status, Influence Gene Expression and Accelerate Stem Elongation for “Snorkelling” during Submergence. <i>Plant and Cell Physiology</i> , 2019, 60, 973-985.	3.1	16
86	Oxygen in the air and oxygen dissolved in the floodwater both sustain growth of aquatic adventitious roots in rice. <i>Journal of Experimental Botany</i> , 2021, 72, 1879-1890.	4.8	16
87	Elevated alkalinity and sulfate adversely affect the aquatic macrophyte <i>Lobelia dortmanna</i> . <i>Aquatic Ecology</i> , 2012, 46, 283-295.	1.5	15
88	Visualisation by high resolution synchrotron X-ray phase contrast micro-tomography of gas films on submerged superhydrophobic leaves. <i>Journal of Structural Biology</i> , 2014, 188, 61-70.	2.8	15
89	CO ₂ and O ₂ dynamics in leaves of aquatic plants with C ₃ or CAM photosynthesis – application of a novel CO ₂ microsensor. <i>Annals of Botany</i> , 2018, 122, 605-615.	2.9	15
90	Impact of Roots and Rhizomes on Wetland Archaeology: A Review. <i>Conservation and Management of Archaeological Sites</i> , 2015, 17, 370-391.	0.5	14

#	ARTICLE	IF	CITATIONS
91	Flood tolerance of wheat – the importance of leaf gas films during complete submergence. <i>Functional Plant Biology</i> , 2017, 44, 888.	2.1	14
92	Oxygen Movement in Seagrasses. , 2007, , 255-270.		14
93	In situ oxygen dynamics in rhizomes of the seagrass <i>Posidonia sinuosa</i> : impact of light, water column oxygen, current speed and wave velocity. <i>Marine Ecology - Progress Series</i> , 2018, 590, 67-77.	1.9	14
94	Microhabitat influence on chironomid community structure and stable isotope signatures in West Greenland lakes. <i>Hydrobiologia</i> , 2014, 730, 59-77.	2.0	13
95	Leaf gas films contribute to rice (<i>Oryza sativa</i>) submergence tolerance during saline floods. <i>Plant, Cell and Environment</i> , 2018, 41, 885-897.	5.7	13
96	Microsensor for in situ flow measurements in benthic boundary layers at submillimeter resolution with extremely slow flow. <i>Limnology and Oceanography: Methods</i> , 2007, 5, 185-191.	2.0	12
97	Improved prediction of vegetation composition in NW European softwater lakes by combining location, water and sediment chemistry. <i>Aquatic Sciences</i> , 2012, 74, 351-360.	1.5	12
98	Rhizome, Root/Sediment Interactions, Aerenchyma and Internal Pressure Changes in Seagrasses. , 2018, , 393-418.		12
99	Contrasting oxygen dynamics in <i>Limonium narbonense</i> and <i>Sarcocornia fruticosa</i> during partial and complete submergence. <i>Functional Plant Biology</i> , 2017, 44, 867.	2.1	11
100	Radial Oxygen Loss from Plant Roots – Methods. <i>Plants</i> , 2021, 10, 2322.	3.5	11
101	Regulation and role of photosynthesis in the colonial symbiotic ciliate <i>Ophrydium versatile</i> . <i>Limnology and Oceanography</i> , 1997, 42, 866-873.	3.1	10
102	Species pool versus site limitations of macrophytes in urban waters. <i>Aquatic Sciences</i> , 2010, 72, 379-389.	1.5	10
103	Flow reversals in groundwater – lake interactions: A natural tracer study using $\delta^{18}O$. <i>Limnologica</i> , 2018, 68, 26-35.	1.5	10
104	Size dependence of composition, photosynthesis and growth in the colony-forming freshwater ciliate, <i>Ophrydium versatile</i> . <i>Freshwater Biology</i> , 1994, 31, 121-130.	2.4	9
105	Hypersalinity affects leaf and meristem O ₂ dynamics exposing meristems to H ₂ S in the dominant tropical seagrass <i>Thalassia testudinum</i> . <i>Journal of Experimental Marine Biology and Ecology</i> , 2020, 533, 151458.	1.5	8
106	Root length is proxy for high-throughput screening of waterlogging tolerance in <i>Urochloa</i> spp. grasses. <i>Functional Plant Biology</i> , 2021, 48, 411.	2.1	8
107	Leaf gas film retention during submergence of 14 cultivars of wheat (<i>Triticum aestivum</i>). <i>Functional Plant Biology</i> , 2017, 44, 877.	2.1	8
108	Increased CO ₂ in the water around <i>Littorella uniflora</i> raises the sediment O ₂ concentration. <i>Aquatic Botany</i> , 2006, 84, 294-300.	1.6	7

#	ARTICLE	IF	CITATIONS
109	Two <i>Brassica napus</i> cultivars differ in gene expression, but not in their response to submergence. <i>Physiologia Plantarum</i> , 2021, 171, 400-415.	5.2	7
110	Contrasting submergence tolerance in two species of stem-succulent halophytes is not determined by differences in stem internal oxygen dynamics. <i>Annals of Botany</i> , 2015, 115, 409-418.	2.9	6
111	Flood tolerance of <i>Glyceria fluitans</i> : the importance of cuticle hydrophobicity, permeability and leaf gas films for underwater gas exchange. <i>Annals of Botany</i> , 2017, 120, 521-528.	2.9	6
112	Catchment tracers reveal discharge, recharge and sources of groundwater-borne pollutants in a novel lake modelling approach. <i>Biogeosciences</i> , 2018, 15, 1203-1216.	3.3	6
113	Uptake of inorganic phosphorus by the aquatic plant <i>Isoetes australis</i> inhabiting oligotrophic vernal rock pools. <i>Aquatic Botany</i> , 2017, 138, 64-73.	1.6	5
114	Removal of chromophoric dissolved organic matter under combined photochemical and microbial degradation as a response to different irradiation intensities. <i>Journal of Environmental Sciences</i> , 2022, 118, 76-86.	6.1	5
115	Irradiance, Water Column O ₂ , and Tide Drive Internal O ₂ Dynamics and Meristem H ₂ S Detection in the Dominant Caribbean-Tropical Atlantic Seagrass, <i>Thalassia testudinum</i> . <i>Estuaries and Coasts</i> , 2022, 45, 2543-2559.	2.2	5
116	Leading trait dimensions in flood-tolerant plants. <i>Annals of Botany</i> , 2022, 130, 383-392.	2.9	4
117	Jack of all trades – C ₄ photosynthesis, CAM and HCO ₃ ⁻ use in the same tissue. A commentary on: “Structural basis for C ₄ photosynthesis without Kranz anatomy in leaves of the submerged freshwater plant <i>Ottelia alismoides</i> ™”. <i>Annals of Botany</i> , 2020, 125, iv-vi.	2.9	3
118	Underwater Photosynthesis and Internal Aeration of Submerged Terrestrial Wetland Plants. <i>Plant Cell Monographs</i> , 2014, , 315-327.	0.4	3
119	Using Reefcheck Monitoring Database to Develop the Coral Reef Index of Biological Integrity. <i>Journal of Fisheries and Aquatic Science</i> , 2009, 4, 90-102.	0.1	2
120	Hypersalinity effects on O ₂ flux across the diffusive boundary layer of leaves in the tropical seagrass <i>Thalassia testudinum</i> . <i>Journal of Experimental Marine Biology and Ecology</i> , 2022, 555, 151780.	1.5	2
121	Low irradiance disrupts the internal O ₂ dynamics of seagrass (<i>Thalassia testudinum</i>) leading to shoot meristem H ₂ S intrusion. <i>Aquatic Botany</i> , 2022, 181, 103532.	1.6	1
122	Aquatic plants are influenced by the surrounding landscape. <i>TheScienceBreaker</i> , 2020, 06, .	0.0	0