Eustaquio Gil-PelegrÃ-n

List of Publications by Year
in descending order

105 papers	4,519 citations	70961 41 h-index	118652 62 g-index
106 all docs	106 docs citations	106 times ranked	4640 citing authors

#	Article	IF	Citations
1	Cavitation, stomatal conductance, and leaf dieback in seedlings of two coâ€•occurring Mediterranean shrubs during an intense drought. Journal of Experimental Botany, 2003, 54, 2015-2024.	2.4	206
2	Effects of a severe drought on Quercus ilex radial growth and xylem anatomy. Trees - Structure and Function, 2004, 18, 83-92.	0.9	205
3	Physico-chemical properties of plant cuticles and their functional and ecological significance. Journal of Experimental Botany, 2017, 68, 5293-5306.	2.4	156
4	Wettability, Polarity, and Water Absorption of Holm Oak Leaves: Effect of Leaf Side and Age. Plant Physiology, 2014, 166, 168-180.	2.3	151
5	Synergistic effects of past historical logging and drought on the decline of Pyrenean silver fir forests. Forest Ecology and Management, 2011, 262, 759-769.	1.4	144
6	Functional groups in Quercus species derived from the analysis of pressureâ€“volume curves. Trees - Structure and Function, 2002, 16, 465-472.	0.9	138
7	Photochemistry, remotely sensed physiological reflectance index and de-epoxidation state of the xanthophyll cycle in Quercus coccifera under intense drought. Oecologia, 2008, 156, 1-11.	0.9	117
8	EFFECTS OF A SEVERE DROUGHT ON GROWTH AND WOOD ANATOMICAL PROPERTIES OF QUERCUS FAGINEA. IAWA Journal, 2004, 25, 185-204.	2.7	109
9	Cellâ€level anatomical characteristics explain high mesophyll conductance and photosynthetic capacity in sclerophyllous Mediterranean oaks. New Phytologist, 2017, 214, 585-596.	3.5	104
10	Phenotypic plasticity in mesic populations of Pinus pinaster improves resistance to xylem embolism (P50) under severe drought. Trees - Structure and Function, 2011, 25, 1033-1042.	0.9	102
11	Suitability of Drought-Preconditioning Techniques in Mediterranean Climate. Restoration Ecology, 2003, 11, 208-216.	1.4	99
12	Leaf anatomical properties in relation to differences in mesophyll conductance to CO₂ and photosynthesis in two related Mediterranean Abies species. Plant, Cell and Environment, 2012, 35, 2121-2129.	2.8	99
13	Radial-growth and wood-anatomical changes in overaged Quercus pyrenaica coppice stands: functional responses in a new Mediterranean landscape. Trees - Structure and Function, 2006, 20, 91-98.	0.9	98
14	Climate-change-driven growth decline of European beech forests. Communications Biology, 2022, 5, 163.	2.0	89
15	Differential photosynthetic performance and photoprotection mechanisms of three Mediterranean evergreen oaks under severe drought stress. Functional Plant Biology, 2009, 36, 453.	1.1	75
16	Are symplast tolerance to intense drought conditions and xylem vulnerability to cavitation coordinated? An integrated analysis of photosynthetic, hydraulic and leaf level processes in two Mediterranean drought-resistant species. Environmental and Experimental Botany, 2010, 69, 233-242.	2.0	73
17	Relationship between hydraulic resistance and leaf morphology in broadleaf Quercus species: a new interpretation of leaf lobation. Trees - Structure and Function, 2001, 15, 341-345.	0.9	71
18	Relationship between ultrasonic properties and structural changes in the mesophyll during leaf dehydration. Journal of Experimental Botany, 2011, 62, 3637-3645.	2.4	71

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19	Morphological and physiological divergences within Quercus ilex support the existence of different ecotypes depending on climatic dryness. Annals of Botany, 2014, 114, 301-313.	1.4	66
20	Influence of cotyledon removal on early seedling growth in Quercus robur L.. Annals of Forest Science, 2003, 60, 69-73.	0.8	65
21	Foliar water and solute absorption: an update. Plant Journal, 2021, 105, 870-883.	2.8	65
22	Studies of variability in Holm oak (Quercus ilex subsp. ballota [Desf.] Samp.) through acorn protein profile analysis. Journal of Proteomics, 2011, 74, 1244-1255.	1.2	63
23	Air-coupled broadband ultrasonic spectroscopy as a new non-invasive and non-contact method for the determination of leaf water status. Journal of Experimental Botany, 2010, 61, 1385-1391.	2.4	62
24	Differences in the leaf functional traits of six beech (Fagus sylvatica L.) populations are reflected in their response to water limitation. Environmental and Experimental Botany, 2013, 87, 110-119.	2.0	56
25	Trichomes and photosynthetic pigment composition changes: responses of Quercus ilex subsp. ballota (Desf.) Samp. and Quercus coccifera L. to Mediterranean stress conditions. Trees - Structure and Function, 2002, 16, 504-510.	0.9	55
26	Physiological performance of silver-fir (Abies alba Mill.) populations under contrasting climates near the south-western distribution limit of the species. Flora: Morphology, Distribution, Functional Ecology of Plants, 2007, 202, 226-236.	0.6	55
27	Physiological and Proteomic Analyses of Drought Stress Response in Holm Oak Provenances. Journal of Proteome Research, 2013, 12, 5110-5123.	1.8	53
28	Leaf morphological and physiological adaptations of a deciduous oak (Quercus fagineaLam.) to the Mediterranean climate: a comparison with a closely related temperate species (Quercus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 37	1.4	52
29	Living in Drylands: Functional Adaptations of Trees and Shrubs to Cope with High Temperatures and Water Scarcity. Forests, 2020, 11, 1028.	0.9	52
30	Morphological and functional variability in the root system ofQuercus ilexL. subject to confinement: consequences for afforestation. Annals of Forest Science, 2006, 63, 425-430.	0.8	50
31	Noncontact and noninvasive study of plant leaves using air-coupled ultrasounds. Applied Physics Letters, 2009, 95, .	1.5	50
32	Microwave l-band (1730MHz) accurately estimates the relative water content in poplar leaves. A comparison with a near infrared water index (R1300/R1450). Agricultural and Forest Meteorology, 2011, 151, 827-832.	1.9	49
33	In situ warming in the Antarctic: effects on growth and photosynthesis in Antarctic vascular plants. New Phytologist, 2018, 218, 1406-1418.	3.5	48
34	Differences in hydraulic architecture between mesic and xeric Pinus pinaster populations at the seedling stage. Tree Physiology, 2012, 32, 1442-1457.	1.4	47
35	Living on the Edge: Contrasted Wood-Formation Dynamics in Fagus sylvatica and Pinus sylvestris under Mediterranean Conditions. Frontiers in Plant Science, 2016, 7, 370.	1.7	47
36	Photosynthetic limitations in two Antarctic vascular plants: importance of leaf anatomical traits and Rubisco kinetic parameters. Journal of Experimental Botany, 2017, 68, 2871-2883.	2.4	47

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37	Land Reclamation by Reforestation in the Central Pyrenees. Mountain Research and Development, 1990, 10, 281.	0.4	45
38	Effects of iron chlorosis and iron resupply on leaf xylem architecture, water relations, gas exchange and stomatal performance of field-grown peach (Prunus persica). Physiologia Plantarum, 2010, 138, 48-59.	2.6	45
39	Oaks Physiological Ecology. Exploring the Functional Diversity of Genus Quercus L.. Tree Physiology, 2017, , .	0.9	45
40	Phenotypic plasticity in Pinus pinaster Î´13C: environment modulates genetic variation. Annals of Forest Science, 2010, 67, 812-812.	0.8	44
41	The reflectivity in the Sâ€band and the broadband ultrasonic spectroscopy as new tools for the study of water relations in Vitis vinifera L.. Physiologia Plantarum, 2013, 148, 512-521.	2.6	43
42	Shear waves in vegetal tissues at ultrasonic frequencies. Applied Physics Letters, 2013, 102, .	1.5	43
43	Contrasting ecophysiological strategies related to drought: the case of a mixed stand of Scots pine (Pinus sylvestris) and a submediterranean oak (Quercus subpyrenaica). Tree Physiology, 2017, 37, 1478-1492.	1.4	43
44	Marcescence and senescence in a submediterranean oak (Quercus subpyrenaica E.H. del Villar): photosynthetic characteristics and nutrient composition. Plant, Cell and Environment, 1996, 19, 685-694.	2.8	42
45	Monitoring Plant Response to Environmental Stimuli by Ultrasonic Sensing of the Leaves. Ultrasound in Medicine and Biology, 2014, 40, 2183-2194.	0.7	41
46	Light acclimation of photosynthesis in two closely related firs (Abies pinsapoBoiss. andAbies) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 T 300-310.	1.4	40
47	Three pools of zeaxanthin in Quercus coccifera leaves during light transitions with different roles in rapidly reversible photoprotective energy dissipation and photoprotection. Journal of Experimental Botany, 2013, 64, 1649-1661.	2.4	38
48	Deciduous and evergreen oaks show contrasting adaptive responses in leaf mass per area across environments. New Phytologist, 2021, 230, 521-534.	3.5	38
49	Morphological and ecophysiological variation of the hybrid oak Quercus subpyrenaica (Q. faginea ï¿½ Q.) Tj ETQq1 1 0.784314 rgBT /O	0.9	36
50	Ancient cell structural traits and photosynthesis in todayâ€™s environment. Journal of Experimental Botany, 2017, 68, 1389-1392.	2.4	32
51	The effect of low temperatures on the photosynthetic apparatus of Quercus ilex subsp. ballota at its lower and upper altitudinal limits in the Iberian peninsula and during a single freezing-thawing cycle. Trees - Structure and Function, 2005, 19, 99-108.	0.9	30
52	Air-coupled ultrasonic resonant spectroscopy for the study of the relationship between plant leaves' elasticity and their water content. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 319-325.	1.7	30
53	Coordinated modifications in mesophyll conductance, photosynthetic potentials and leaf nitrogen contribute to explain the large variation in foliage net assimilation rates across Quercus ilex provenances. Tree Physiology, 2017, 37, 1084-1094.	1.4	30
54	Instantaneous and non-destructive relative water content estimation from deep learning applied to resonant ultrasonic spectra of plant leaves. Plant Methods, 2019, 15, 128.	1.9	30

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55	Hydraulic traits are associated with the distribution range of two closely related Mediterranean firs, Abies alba Mill. and Abies pinsapo Boiss.. Tree Physiology, 2011, 31, 1067-1075.	1.4	29
56	Stomatal encryption by epicuticular waxes as a plastic trait modifying gas exchange in a Mediterranean evergreen species (Quercus coccifera L.). Plant, Cell and Environment, 2013, 36, 579-589.	2.8	29
57	Ultrasonic Sensing of Plant Water Needs for Agriculture. Sensors, 2016, 16, 1089.	2.1	29
58	Changes of secondary metabolites in Pinus sylvestris L. needles under increasing soil water deficit. Annals of Forest Science, 2017, 74, 1.	0.8	29
59	Cavitation Limits the Recovery of Gas Exchange after Severe Drought Stress in Holm Oak (Quercus ilex) Tj ETQq1 1 0.784314 rgBT /O	0.9	29
60	Competitive effects of herbs onQuercus fagineaseedlings inferred from vulnerability curves and spatial-pattern analyses in a Mediterranean stand (Iberian System, northeast Spain). Ecoscience, 2006, 13, 378-387.	0.6	27
61	Leaf functional plasticity decreases the water consumption without further consequences for carbon uptake inQuercus cocciferaL. under Mediterranean conditions. Tree Physiology, 2016, 36, 356-367.	1.4	27
62	Aridity promotes differences in proline and phytohormone levels in Pinus pinaster populations from contrasting environments. Trees - Structure and Function, 2012, 26, 799-808.	0.9	26
63	Revisiting the Functional Basis of Sclerophylly Within the Leaf Economics Spectrum of Oaks: Different Roads to Rome. Current Forestry Reports, 2020, 6, 260-281.	3.4	26
64	Intraspecific Variation in Pinus Pinaster PSII Photochemical Efficiency in Response to Winter Stress and Freezing Temperatures. PLoS ONE, 2011, 6, e28772.	1.1	26
65	Hydraulic and photosynthetic limitations prevail over root nonâ€structural carbohydrate reserves as drivers of resprouting in two Mediterranean oaks. Plant, Cell and Environment, 2020, 43, 1944-1957.	2.8	24
66	Embolism induced by winter drought may be critical for the survival of Pinus sylvestris L. near its southern distribution limit. Annals of Forest Science, 2011, 68, 565.	0.8	23
67	Evidence of vulnerability segmentation in a deciduous Mediterranean oak (Quercus subpyrenaica E. H.) Tj ETQq1 1 0.784314 rgBT /Ov	0.9	23
68	Cuticular wax coverage and its transpiration barrier properties in Quercus coccifera L. leaves: does the environment matter?. Tree Physiology, 2020, 40, 827-840.	1.4	22
69	The impact of a needleminer (Epinotia subsequana) outbreak on radial growth of silver fir (Abies alba) in the AragÃ³n Pyrenees: A dendrochronological assessment. Dendrochronologia, 2003, 21, 3-12.	1.0	21
70	Ã‰valuation des dÃ©gÃ¢ts du froid dans les troncs de Pinus sylvestris L. par la mesure de la fluorescence de la chlorophylle dans le chlorenchyme cortical de lâ€™Ã©corce. Annals of Forest Science, 2008, 65, 813-813.	0.8	20
71	Oaks Under Mediterranean-Type Climates: Functional Response to Summer Aridity. Tree Physiology, 2017, , 137-193.	0.9	20
72	Photosystem II efficiency of the palisade and spongy mesophyll in Quercus coccifera using adaxial/abaxial illumination and excitation light sources with wavelengths varying in penetration into the leaf tissue. Photosynthesis Research, 2009, 99, 49-61.	1.6	18

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73	Biotic factors and increasing aridity shape the altitudinal shifts of marginal Pyrenean silver fir populations in Europe. Forest Ecology and Management, 2019, 432, 558-567.	1.4	18
74	Evaluation of unventilated treeshelters in the context of Mediterranean climate: Insights from a study on Quercus faginea seedlings assessed with a 3D architectural plant model. Ecological Engineering, 2010, 36, 517-526.	1.6	17
75	Contrasting functional strategies following severe drought in two Mediterranean oaks with different leaf habit:Quercus fagineaandQuercus ilexsubsp.rotundifolia. Tree Physiology, 2021, 41, 371-387.	1.4	17
76	Drought-Induced Oak Declineâ€"Factors Involved, Physiological Dysfunctions, and Potential Attenuation by Forestry Practices. Tree Physiology, 2017, , 419-451.	0.9	16
77	Ultrasonic spectroscopy allows a rapid determination of the relative water content at the turgor loss point: a comparison with pressure-volume curves in 13 woody species. Tree Physiology, 2013, 33, 695-700.	1.4	15
78	The Application of Leaf Ultrasonic Resonance to Vitis vinifera L. Suggests the Existence of a Diurnal Osmotic Adjustment Subjected to Photosynthesis. Frontiers in Plant Science, 2016, 7, 1601.	1.7	13
79	Crown architecture and leaf habit are associated with intrinsically different light-harvesting efficiencies inQuercusseedlings from contrasting environments. Annals of Forest Science, 2006, 63, 511-518.	0.8	12
80	Coping with low light under high atmospheric dryness: shade acclimation in a Mediterranean conifer (Abies pinsapo Boiss.). Tree Physiology, 2014, 34, 1321-1333.	1.4	12
81	Delineating limits: Confronting predicted climatic suitability to field performance in mistletoe populations. Journal of Ecology, 2018, 106, 2218-2229.	1.9	12
82	Non-contact ultrasonic resonant spectroscopy resolves the elastic properties of layered plant tissues. Applied Physics Letters, 2018, 113, .	1.5	12
83	Chl Fluorescence Parameters and Leaf Reflectance Indices Allow Monitoring Changes in the Physiological Status of Quercus ilex L. under Progressive Water Deficit. Forests, 2018, 9, 400.	0.9	12
84	A trade-off between embolism resistance and bark thickness in conifers: are drought and fire adaptations antagonistic?. Plant Ecology and Diversity, 2018, 11, 253-258.	1.0	12
85	Frost resistance of seeds in Mediterranean oaks and the role of litter in the thermal protection of acorns. Annals of Forest Science, 2004, 61, 481-486.	0.8	11
86	Positively selected amino acid replacements within the RuBisCO enzyme of oak trees are associated with ecological adaptations. PLoS ONE, 2017, 12, e0183970.	1.1	11
87	Oaks and People: A Long Journey Together. Tree Physiology, 2017, , 1-11.	0.9	10
88	Day length regulates seasonal patterns of stomatal conductance in Quercus species. Plant, Cell and Environment, 2020, 43, 28-39.	2.8	10
89	Physiological Keys for Natural and Artificial Regeneration of Oaks. Tree Physiology, 2017, , 453-511.	0.9	9
90	Genetic and environmental characterization of Abies alba Mill. populations at its western rear edge. Pirineos, 2014, 169, e007.	0.6	9

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91	Summer and winter can equally stress holm oak (Quercus ilex L.) in Mediterranean areas: A physiological view. Flora: Morphology, Distribution, Functional Ecology of Plants, 2022, 290, 152058.	0.6	8
92	Surface Density of the Spongy and Palisade Parenchyma Layers of Leaves Extracted From Wideband Ultrasonic Resonance Spectra. Frontiers in Plant Science, 2020, 11, 695.	1.7	7
93	Self-shading in cork oak seedlings: Functional implications in heterogeneous light environments. Acta Oecologica, 2010, 36, 423-430.	0.5	6
94	The Role of Mesophyll Conductance in Oak Photosynthesis: Among- and Within-Species Variability. Tree Physiology, 2017, , 303-325.	0.9	6
95	Elevated atmospheric CO 2 modifies responses to waterâ€stress and flowering of Mediterranean desert truffle mycorrhizal shrubs. Physiologia Plantarum, 2020, 170, 537-549.	2.6	6
96	Southeastern Rear Edge Populations of Quercus suber L. Showed Two Alternative Strategies to Cope with Water Stress. Forests, 2020, 11, 1344.	0.9	5
97	Contact-less, non-resonant and high-frequency ultrasonic technique: Towards a universal tool for plant leaf study. Computers and Electronics in Agriculture, 2022, 199, 107160.	3.7	4
98	Shear waves in plant leaves at ultrasonic frequencies: Shear properties of vegetal tissues. , 2012, , .		3
99	Leaf vein density enhances vascular redundancy instead of carbon uptake at the expense of increasing water leaks in oaks. Environmental and Experimental Botany, 2021, 188, 104527.	2.0	3
100	Minimum Leaf Conductance (gmin) Is Higher in the Treeline of Pinus uncinata Ram. in the Pyrenees: Michaelisâ€™ Hypothesis Revisited. Frontiers in Plant Science, 2021, 12, 786933.	1.7	3
101	Changes in the Abundance of Monoterpenes from Breathable Air of a Mediterranean Conifer Forest: When Is the Best Time for a Human Healthy Leisure Activity?. Forests, 2022, 13, 965.	0.9	3
102	Cuticular wax coverage and its transpiration barrier properties in Quercus coccifera L. leaves: does the environment matter?. Tree Physiology, 2019, , .	1.4	2
103	Cell-level anatomy explains leaf age-dependent declines in mesophyll conductance and photosynthetic capacity in the evergreen Mediterranean oak Quercus ilex subsp. rotundifolia. Tree Physiology, 2022, , .	1.4	2
104	Monitoring of Plant Light/Dark Cycles Using Air-coupled Ultrasonic Spectroscopy. Physics Procedia, 2015, 63, 91-96.	1.2	0
105	Mechanisms of Adaptation of Trees and Shrubs to Dry and Hot Environments. Forests, 2021, 12, 1080.	0.9	0