

Miguel A Zavala

List of Publications by Year in descending order

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Version: 2024-02-01

126
papers

9,779
citations

44069

48
h-index

38395

95
g-index

131
all docs

131
docs citations

131
times ranked

12563
citing authors

#	ARTICLE	IF	CITATIONS
1	Disentangling the Legacies of Climate and Management on Tree Growth. <i>Ecosystems</i> , 2022, 25, 215-235.	3.4	7
2	Identifying Forest Structural Types along an Aridity Gradient in Peninsular Spain: Integrating Low-Density LiDAR, Forest Inventory, and Aridity Index. <i>Remote Sensing</i> , 2022, 14, 235.	4.0	9
3	Tree growth response to drought partially explains regional-scale growth and mortality patterns in Iberian forests. <i>Ecological Applications</i> , 2022, 32, e2589.	3.8	13
4	Colonization and extinction dynamics and their link to the distribution of European trees at the continental scale. <i>Journal of Biogeography</i> , 2022, 49, 117-129.	3.0	5
5	Talio: A global tree allometry and crown architecture database. <i>Global Change Biology</i> , 2022, 28, 5254-5268.	9.5	24
6	Demographic performance of European tree species at their hot and cold climatic edges. <i>Journal of Ecology</i> , 2021, 109, 1041-1054.	4.0	23
7	Evaluating tree-to-tree competition during stand development in a relict Scots pine forest: how much does climate matter?. <i>Trees - Structure and Function</i> , 2021, 35, 1207-1219.	1.9	18
8	Occurrence but not intensity of mortality rises towards the climatic trailing edge of tree species ranges in European forests. <i>Global Ecology and Biogeography</i> , 2021, 30, 1356-1374.	5.8	13
9	Modelling Tree Growth in Monospecific Forests from Forest Inventory Data. <i>Forests</i> , 2021, 12, 753.	2.1	2
10	Resilience as a Moving Target: An Evaluation of Last Century Management Strategies in a Dry-Edge Maritime Pine Ecosystem. <i>Forests</i> , 2021, 12, 1151.	2.1	4
11	Excess plant growth worsens droughts. <i>Nature Ecology and Evolution</i> , 2021, 5, 1474-1475.	7.8	0
12	Using spectral indices as early warning signals of forest dieback: The case of drought-prone Pinus pinaster forests. <i>Science of the Total Environment</i> , 2021, 793, 148578.	8.0	27
13	Mediterranean Pine Forest Distribution: Assessing Vulnerability and Resilience Under Climate Change. <i>Managing Forest Ecosystems</i> , 2021, , 251-277.	0.9	2
14	Forest Management, Conflict and Social-Ecological Systems in a Changing World. <i>Forests</i> , 2021, 12, 1459.	2.1	0
15	Similar patterns of background mortality across Europe are mostly driven by drought in European beech and a combination of drought and competition in Scots pine. <i>Agricultural and Forest Meteorology</i> , 2020, 280, 107772.	4.8	30
16	Inter-specific tolerance to recurrent droughts of pine species revealed in saplings rather than adult trees. <i>Forest Ecology and Management</i> , 2020, 459, 117848.	3.2	36
17	Available and missing data to model impact of climate change on European forests. <i>Ecological Modelling</i> , 2020, 416, 108870.	2.5	58
18	Probabilistic drought risk analysis for even-aged forests. , 2020, , 159-176.		0

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19	Forest stocks control long-term climatic mortality risks in Scots pine dry-edge forests. <i>Ecosphere</i> , 2020, 11, e03201.	2.2	4
20	Climate reverses directionality in the richness–abundance relationship across the World’s main forest biomes. <i>Nature Communications</i> , 2020, 11, 5635.	12.8	20
21	Targeted policy proposals for managing spontaneous forest expansion in the Mediterranean. <i>Journal of Applied Ecology</i> , 2020, 57, 2373-2380.	4.0	34
22	Evidence of non-stationary relationships between climate and forest responses: Increased sensitivity to climate change in Iberian forests. <i>Global Change Biology</i> , 2020, 26, 5063-5076.	9.5	56
23	Remaking a stand: Links between genetic diversity and tree growth in expanding Mountain pine populations. <i>Forest Ecology and Management</i> , 2020, 472, 118244.	3.2	11
24	Structural diversity underpins carbon storage in Australian temperate forests. <i>Global Ecology and Biogeography</i> , 2020, 29, 789-802.	5.8	45
25	Divergent Last Century Tree Growth along An Altitudinal Gradient in A <i>Pinus sylvestris</i> Dry-edge Population. <i>Forests</i> , 2019, 10, 532.	2.1	3
26	How do trees respond to species mixing in experimental compared to observational studies?. <i>Ecology and Evolution</i> , 2019, 9, 11254-11265.	1.9	8
27	A Multifactorial Approach to Value Supporting Ecosystem Services in Spanish Forests and Its Implications in a Warming World. <i>Sustainability</i> , 2019, 11, 358.	3.2	6
28	Identifying the tree species compositions that maximize ecosystem functioning in European forests. <i>Journal of Applied Ecology</i> , 2019, 56, 733-744.	4.0	58
29	Distribution of pines in the Iberian Peninsula agrees with species differences in foliage frost tolerance, not with vulnerability to freezing-induced xylem embolism. <i>Tree Physiology</i> , 2018, 38, 507-516.	3.1	24
30	Fluoride prevalence in groundwater around a fluorite mining area in the flood plain of the River Swat, Pakistan. <i>Science of the Total Environment</i> , 2018, 635, 203-215.	8.0	112
31	Last-century forest productivity in a managed dry-edge Scots pine population: the two sides of climate warming. <i>Ecological Applications</i> , 2018, 28, 95-105.	3.8	22
32	Continental mapping of forest ecosystem functions reveals a high but unrealised potential for forest multifunctionality. <i>Ecology Letters</i> , 2018, 21, 31-42.	6.4	74
33	Forest Adaptation to Climate Change along Steep Ecological Gradients: The Case of the Mediterranean-Temperate Transition in South-Western Europe. <i>Sustainability</i> , 2018, 10, 3065.	3.2	17
34	Do adult trees increase conspecific juvenile resilience to recurrent droughts? Implications for forest regeneration. <i>Ecosphere</i> , 2018, 9, e02282.	2.2	28
35	Disentangling the relative role of climate change on tree growth in an extreme Mediterranean environment. <i>Science of the Total Environment</i> , 2018, 642, 619-628.	8.0	23
36	Resilience to drought in a dry forest: Insights from demographic rates. <i>Forest Ecology and Management</i> , 2017, 389, 167-175.	3.2	29

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37	Phylogeny and the prediction of tree functional diversity across novel continental settings. <i>Global Ecology and Biogeography</i> , 2017, 26, 553-562.	5.8	31
38	Climate- and successional-related changes in functional composition of European forests are strongly driven by tree mortality. <i>Global Change Biology</i> , 2017, 23, 4162-4176.	9.5	62
39	Climate and population origin shape pine tree height-diameter allometry. <i>New Forests</i> , 2017, 48, 363-379.	1.7	28
40	Competition Drives Oak Species Distribution and Functioning in Europe: Implications Under Global Change. <i>Tree Physiology</i> , 2017, , 513-538.	2.5	5
41	Functional diversity underlies demographic responses to environmental variation in European forests. <i>Global Ecology and Biogeography</i> , 2017, 26, 128-141.	5.8	56
42	Forest productivity in southwestern Europe is controlled by coupled North Atlantic and Atlantic Multidecadal Oscillations. <i>Nature Communications</i> , 2017, 8, 2222.	12.8	33
43	Modes of functional biodiversity control on tree productivity across the European continent. <i>Global Ecology and Biogeography</i> , 2016, 25, 251-262.	5.8	83
44	Factors influencing the dispersion of <i>Asceuthobium oxycedri</i> in central Spain: evaluation with a new null model for marked point patterns. <i>Forest Pathology</i> , 2016, 46, 610-621.	1.1	6
45	Jack-of-all-trades effects drive biodiversity-ecosystem multifunctionality relationships in European forests. <i>Nature Communications</i> , 2016, 7, 11109.	12.8	185
46	Adaptation and plasticity in aboveground allometry variation of four pine species along environmental gradients. <i>Ecology and Evolution</i> , 2016, 6, 7561-7573.	1.9	40
47	Drought impacts on tree growth of two pine species along an altitudinal gradient and their use as early-warning signals of potential shifts in tree species distributions. <i>Forest Ecology and Management</i> , 2016, 381, 157-167.	3.2	63
48	Shedding light on shade: ecological perspectives of understory plant life. <i>Plant Ecology and Diversity</i> , 2016, 9, 237-251.	2.4	181
49	Complementarity effects on tree growth are contingent on tree size and climatic conditions across Europe. <i>Scientific Reports</i> , 2016, 6, 32233.	3.3	38
50	Biotic homogenization can decrease landscape-scale forest multifunctionality. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 3557-3562.	7.1	196
51	Plant functional traits have globally consistent effects on competition. <i>Nature</i> , 2016, 529, 204-207.	27.8	655
52	Informe de Evaluaci3n sobre Impactos, Vulnerabilidad y Adaptaci3n en los Bosques y la Biodiversidad de Espa±a frente al Cambio Climático. <i>Ecosistemas</i> , 2016, 25, 116.	0.4	6
53	Challenges and opportunities in the use of National Forest Inventories for the study of the relationship between biodiversity and ecosystem services supply in forests. , 2016, 25, 60-69.		1
54	Estudio, gesti3n, conservaci3n y restauraci3n de ecosistemas ante el cambio global: 1ª Jornadas FORECO en la Universidad de Alcalá. <i>Ecosistemas</i> , 2016, 25, 115.	0.4	0

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55	Forests, savannas, and grasslands: bridging the knowledge gap between ecology and Dynamic Global Vegetation Models. <i>Biogeosciences</i> , 2015, 12, 1833-1848.	3.3	88
56	Long-term Wood Production in Water-Limited Forests: Evaluating Potential CO ₂ Fertilization Along with Historical Confounding Factors. <i>Ecosystems</i> , 2015, 18, 1043-1055.	3.4	13
57	Effects of climate, species interactions, and dispersal on decadal colonization and extinction rates of Iberian tree species. <i>Ecological Modelling</i> , 2015, 309-310, 118-127.	2.5	21
58	Revealing patterns of local species richness along environmental gradients with a novel network tool. <i>Scientific Reports</i> , 2015, 5, 11561.	3.3	10
59	Evaluating the combined effects of climate and land use change on tree species distributions. <i>Journal of Applied Ecology</i> , 2015, 52, 902-912.	4.0	73
60	Effects of climate extremes on the terrestrial carbon cycle: concepts, processes and potential future impacts. <i>Global Change Biology</i> , 2015, 21, 2861-2880.	9.5	683
61	Recent land cover changes in Spain across biogeographical regions and protection levels: Implications for conservation policies. <i>Land Use Policy</i> , 2015, 44, 62-75.	5.6	73
62	Stand Structure and Recent Climate Change Constrain Stand Basal Area Change in European Forests: A Comparison Across Boreal, Temperate, and Mediterranean Biomes. <i>Ecosystems</i> , 2014, 17, 1439-1454.	3.4	47
63	Shrub encroachment shifts the bioclimatic limit between marcescent and sclerophyllous oaks along an elevation gradient in west-central Spain. <i>Journal of Vegetation Science</i> , 2014, 25, 514-524.	2.2	8
64	Inferring shifts in tree species distribution using asymmetric distribution curves: a case study in the Iberian mountains. <i>Journal of Vegetation Science</i> , 2014, 25, 147-159.	2.2	45
65	Diversity increases carbon storage and tree productivity in Spanish forests. <i>Global Ecology and Biogeography</i> , 2014, 23, 311-322.	5.8	237
66	Rate of tree carbon accumulation increases continuously with tree size. <i>Nature</i> , 2014, 507, 90-93.	27.8	663
67	The effects of phenotypic plasticity and local adaptation on forecasts of species range shifts under climate change. <i>Ecology Letters</i> , 2014, 17, 1351-1364.	6.4	802
68	Main biotic drivers of tree growth in a developing <i>Juniperus thurifera</i> stand in central Spain. <i>European Journal of Forest Research</i> , 2014, 133, 1109-1119.	2.5	2
69	Phenotypic correlates of potential range size and range filling in European trees. <i>Perspectives in Plant Ecology, Evolution and Systematics</i> , 2014, 16, 219-227.	2.7	39
70	Competition and tree age modulated last century pine growth responses to high frequency of dry years in a water limited forest ecosystem. <i>Agricultural and Forest Meteorology</i> , 2014, 192-193, 18-26.	4.8	45
71	The Role of Population Origin and Microenvironment in Seedling Emergence and Early Survival in Mediterranean Maritime Pine (<i>Pinus pinaster</i> Aiton). <i>PLoS ONE</i> , 2014, 9, e109132.	2.5	35
72	Chasing a moving target: projecting climate change-induced shifts in non-equilibrium tree species distributions. <i>Journal of Ecology</i> , 2013, 101, 441-453.	4.0	96

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73	Contrasting vulnerability and resilience to drought-induced decline of densely planted vs. natural rear-edge <i>Pinus nigra</i> forests. <i>Forest Ecology and Management</i> , 2013, 310, 956-967.	3.2	97
74	Stand dynamics and tree coexistence in an analytical structured model: The role of recruitment. <i>Journal of Theoretical Biology</i> , 2013, 333, 91-101.	1.7	7
75	A novel comparative research platform designed to determine the functional significance of tree species diversity in European forests. <i>Perspectives in Plant Ecology, Evolution and Systematics</i> , 2013, 15, 281-291.	2.7	179
76	Interspecific differences in tree growth and mortality responses to environmental drivers determine potential species distributional limits in Iberian forests. <i>Global Ecology and Biogeography</i> , 2013, 22, 1141-1151.	5.8	74
77	Patterns and Drivers of Tree Mortality in Iberian Forests: Climatic Effects Are Modified by Competition. <i>PLoS ONE</i> , 2013, 8, e56843.	2.5	172
78	Vulnerability of Spanish forests under climatic change: evaluation through models. <i>Ecosistemas</i> , 2013, 22, 21-28.	0.4	3
79	Aplicación de modelos ecológicos para el análisis de la estructura y dinámica de los bosques ibéricos en respuesta al cambio climático. , 2013, , 77-107.		0
80	Large-scale assessment of regeneration and diversity in Mediterranean planted pine forests along ecological gradients. <i>Diversity and Distributions</i> , 2012, 18, 1092-1106.	4.1	77
81	Is drought the main decline factor at the rear edge of Europe? The case of southern Iberian pine plantations. <i>Forest Ecology and Management</i> , 2012, 271, 158-169.	3.2	93
82	Wood provisioning in Mediterranean forests: A bottom-up spatial valuation approach. <i>Forest Policy and Economics</i> , 2012, 20, 78-88.	3.4	13
83	Architecture of Iberian canopy tree species in relation to wood density, shade tolerance and climate. <i>Plant Ecology</i> , 2012, 213, 707-722.	1.6	63
84	Disruption of <i>Juniperus thurifera</i> woodland structure in its northwestern geographical range: potential drivers and limiting factors. <i>European Journal of Forest Research</i> , 2012, 131, 563-570.	2.5	11
85	Ontogenetic conflicts and rank reversals in two Mediterranean oak species: implications for coexistence. <i>Journal of Ecology</i> , 2012, 100, 467-477.	4.0	40
86	Predictable changes in aboveground allometry of trees along gradients of temperature, aridity and competition. <i>Global Ecology and Biogeography</i> , 2012, 21, 1017-1028.	5.8	185
87	Interspecific differences in sapling performance with respect to light and aridity gradients in Mediterranean pine-oak forests: implications for species coexistence. <i>Canadian Journal of Forest Research</i> , 2011, 41, 1432-1444.	1.7	51
88	Intra-specific variability and plasticity influence potential tree species distributions under climate change. <i>Global Ecology and Biogeography</i> , 2011, 20, 766-778.	5.8	249
89	Disentangling the relative importance of climate, size and competition on tree growth in Iberian forests: implications for forest management under global change. <i>Global Change Biology</i> , 2011, 17, 2400-2414.	9.5	244
90	Mediterranean pine and oak distribution in southern Spain: Is there a mismatch between regeneration and adult distribution?. <i>Journal of Vegetation Science</i> , 2011, 22, 18-31.	2.2	73

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91	Evaluating restoration of man-made slopes: a threshold approach balancing vegetation and rill erosion. <i>Earth Surface Processes and Landforms</i> , 2011, 36, 1367-1377.	2.5	23
92	Positive interactions, discontinuous transitions and species coexistence in plant communities. <i>Theoretical Population Biology</i> , 2010, 77, 131-144.	1.1	16
93	Competition and species coexistence in a metapopulation model: Can fast asymmetric migration reverse the outcome of competition in a homogeneous environment?. <i>Journal of Theoretical Biology</i> , 2010, 266, 256-263.	1.7	16
94	Land use change in a Mediterranean metropolitan region and its periphery: assessment of conservation policies through CORINE Land Cover data and Markov models. <i>Forest Systems</i> , 2010, 19, 315.	0.3	33
95	Are pine plantations valid tools for restoring Mediterranean forests? An assessment along abiotic and biotic gradients. <i>Ecological Applications</i> , 2009, 19, 2124-2141.	3.8	129
96	Do species distribution models explain spatial structure within tree species ranges?. <i>Global Ecology and Biogeography</i> , 2009, 18, 662-673.	5.8	23
97	Patterns and ecological consequences of abiotic heterogeneity in managed cork oak forests of Southern Spain. <i>Ecological Research</i> , 2008, 23, 127-139.	1.5	47
98	Traits fonctionnels et plasticité en relation avec les performances de semis de ligneux méditerranéens sous ombrage et en situation de sécheresse. <i>Annals of Forest Science</i> , 2008, 65, 311-311.	2.0	41
99	Rank reversals in tree growth along tree size, competition and climatic gradients for four forest canopy dominant species in Central Spain. <i>Annals of Forest Science</i> , 2008, 65, 605-605.	2.0	25
100	Seed removal in two coexisting oak species: ecological consequences of seed size, plant cover and seed drop timing. <i>Oikos</i> , 2008, 117, 1386-1396.	2.7	56
101	Human and non-human determinants of forest composition in southern Spain: evidence of shifts towards cork oak dominance as a result of management over the past century. <i>Journal of Biogeography</i> , 2008, 35, 1688-1700.	3.0	85
102	Dynamics of understorey herbaceous plant diversity following shrub clearing of cork oak forests: A five-year study. <i>Forest Ecology and Management</i> , 2008, 255, 3242-3253.	3.2	51
103	Animal Versus Wind Dispersal and the Robustness of Tree Species to Deforestation. <i>Science</i> , 2008, 320, 1502-1504.	12.6	125
104	Soil water content and emergence time control seedling establishment in three co-occurring Mediterranean oak species. <i>Canadian Journal of Forest Research</i> , 2008, 38, 2382-2393.	1.7	88
105	GLOBAL MODELS FOR PREDICTING WOODY PLANT RICHNESS FROM CLIMATE: COMMENT. <i>Ecology</i> , 2007, 88, 255-259.	3.2	17
106	ENVIRONMENTAL HETEROGENEITY, BIRD-MEDIATED DIRECTED DISPERSAL, AND OAK WOODLAND DYNAMICS IN MEDITERRANEAN SPAIN. <i>Ecological Monographs</i> , 2007, 77, 77-97.	5.4	75
107	Contemporary richness of holarctic trees and the historical pattern of glacial retreat. <i>Ecography</i> , 2007, 30, 173-182.	4.5	89
108	An analytical model of stand dynamics as a function of tree growth, mortality and recruitment: The shade tolerance-stand structure hypothesis revisited. <i>Journal of Theoretical Biology</i> , 2007, 244, 440-450.	1.7	42

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109	Contemporary richness of holarctic trees and the historical pattern of glacial retreat. <i>Ecography</i> , 2007, 30, 173-182.	4.5	4
110	Seedling survival responses to irradiance are differentially influenced by low-water availability in four tree species of the Iberian cool temperate Mediterranean ecotone. <i>Acta Oecologica</i> , 2006, 30, 322-332.	1.1	39
111	Performance of seedlings of Mediterranean woody species under experimental gradients of irradiance and water availability: trade-offs and evidence for niche differentiation. <i>New Phytologist</i> , 2006, 170, 795-806.	7.3	168
112	Quantitative estimation of phenotypic plasticity: bridging the gap between the evolutionary concept and its ecological applications. <i>Journal of Ecology</i> , 2006, 94, 1103-1116.	4.0	711
113	Functional traits and plasticity in response to light in seedlings of four Iberian forest tree species. <i>Tree Physiology</i> , 2006, 26, 1425-1433.	3.1	78
114	Delayed effects of fire on habitat use by large herbivores in <i>Acacia drepanolobium</i> savanna. <i>African Journal of Ecology</i> , 2005, 43, 155-157.	0.9	12
115	A mechanistic model of tree competition and facilitation for Mediterranean forests: Scaling from leaf physiology to stand dynamics. <i>Ecological Modelling</i> , 2005, 188, 76-92.	2.5	39
116	Effects of artificial shading and weed mowing in reforestation of Mediterranean abandoned cropland with contrasting <i>Quercus</i> species. <i>Forest Ecology and Management</i> , 2005, 212, 302-314.	3.2	117
117	Sustainability of forest management practices: Evaluation through a simulation model of nutrient cycling. <i>Forest Ecology and Management</i> , 2005, 213, 209-228.	3.2	82
118	Integration of drought tolerance mechanisms in Mediterranean sclerophylls: a functional interpretation of leaf gas exchange simulators. <i>Ecological Modelling</i> , 2004, 176, 211-226.	2.5	22
119	Mechanisms maintaining biodiversity in Mediterranean pine-oak forests: insights from a spatial simulation model. <i>Plant Ecology</i> , 2004, 171, 197-207.	1.6	70
120	Spatial pattern of <i>Quercus ilex</i> and <i>Quercus pubescens</i> recruitment in <i>Pinus halepensis</i> dominated woodlands. <i>Journal of Vegetation Science</i> , 2000, 11, 607-612.	2.2	90
121	Constraints and trade-offs in Mediterranean plant communities: The case of holm oak-Aleppo pine forests. <i>Botanical Review</i> , The, 2000, 66, 119-149.	3.9	183
122	A Model of Stand Dynamics for Holm Oak-Aleppo Pine Forests. <i>Ecological Studies</i> , 1999, , 105-117.	1.2	8
123	Application of ecological models to landscape planning: the case of the Mediterranean basin. <i>Landscape and Urban Planning</i> , 1997, 38, 213-227.	7.5	28
124	Preserving biological diversity in managed forests: a meeting point for ecology and forestry. <i>Landscape and Urban Planning</i> , 1995, 31, 363-378.	7.5	15
125	Global Positioning System as a tool for ecosystem studies at the landscape level: an application in the Spanish Mediterranean. <i>Landscape and Urban Planning</i> , 1993, 24, 95-104.	7.5	4
126	Ecological effects of harvesting biomass for energy in the Spanish Mediterranean. <i>Landscape and Urban Planning</i> , 1993, 24, 227-231.	7.5	2