

Anna Sala

List of Publications by Year in descending order

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Version: 2024-02-01

85
papers

9,811
citations

61984

43
h-index

60623

81
g-index

90
all docs

90
docs citations

90
times ranked

8433
citing authors

#	ARTICLE	IF	CITATIONS
1	A multi-species synthesis of physiological mechanisms in drought-induced tree mortality. <i>Nature Ecology and Evolution</i> , 2017, 1, 1285-1291.	7.8	739
2	Carbon dynamics in trees: feast or famine?. <i>Tree Physiology</i> , 2012, 32, 764-775.	3.1	644
3	Tree mortality from drought, insects, and their interactions in a changing climate. <i>New Phytologist</i> , 2015, 208, 674-683.	7.3	641
4	Components of tree resilience: effects of successive low-growth episodes in old ponderosa pine forests. <i>Oikos</i> , 2011, 120, 1909-1920.	2.7	580
5	Physiological mechanisms of drought-induced tree mortality are far from being resolved. <i>New Phytologist</i> , 2010, 186, 274-281.	7.3	535
6	Nonstructural Carbon in Woody Plants. <i>Annual Review of Plant Biology</i> , 2014, 65, 667-687.	18.7	533
7	Dynamics of non-structural carbohydrates in terrestrial plants: a global synthesis. <i>Ecological Monographs</i> , 2016, 86, 495-516.	5.4	458
8	Wildfires and climate change push low-elevation forests across a critical climate threshold for tree regeneration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 6193-6198.	7.1	307
9	PLASTICITY AND GENETIC DIVERSITY MAY ALLOW SALT CEDAR TO INVADE COLD CLIMATES IN NORTH AMERICA. , 2002, 12, 1652-1660.		233
10	Invasive capacity of <i>Tamarix ramosissima</i> in a Mojave Desert floodplain: the role of drought. <i>Oecologia</i> , 1997, 111, 12-18.	2.0	216
11	Mechanism of water-stress induced cavitation in conifers: bordered pit structure and function support the hypothesis of seal capillary seeding. <i>Plant, Cell and Environment</i> , 2010, 33, 2101-2111.	5.7	216
12	Does carbon storage limit tree growth?. <i>New Phytologist</i> , 2014, 201, 1096-1100.	7.3	212
13	Water Use by <i>Tamarix Ramosissima</i> and Associated Phreatophytes in a Mojave Desert Floodplain. , 1996, 6, 888-898.		191
14	The hydraulic architecture of Pinaceae – a review. <i>Plant Ecology</i> , 2004, 171, 3-13.	1.6	172
15	Simulations of canopy net photosynthesis and transpiration in <i>Quercus ilex</i> L. under the influence of seasonal drought. <i>Agricultural and Forest Meteorology</i> , 1996, 78, 203-222.	4.8	171
16	Water relations of riparian plants from warm desert regions. <i>Wetlands</i> , 1998, 18, 687-696.	1.5	165
17	Non-structural carbohydrates in woody plants compared among laboratories. <i>Tree Physiology</i> , 2015, 35, tpv073.	3.1	163
18	Mechanisms of woody-plant mortality under rising drought, CO ₂ and vapour pressure deficit. <i>Nature Reviews Earth & Environment</i> , 2022, 3, 294-308.	29.7	163

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19	Are old forests underestimated as global carbon sinks?. <i>Global Change Biology</i> , 2001, 7, 339-344.	9.5	161
20	Height-related growth declines in ponderosa pine are not due to carbon limitation. <i>Plant, Cell and Environment</i> , 2009, 32, 22-30.	5.7	155
21	Local adaptation across a climatic gradient despite small effective population size in the rare sapphire rockcress. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2001, 268, 1715-1721.	2.6	137
22	Low-severity fire increases tree defense against bark beetle attacks. <i>Ecology</i> , 2015, 96, 1846-1855.	3.2	135
23	Greater focus on water pools may improve our ability to understand and anticipate drought-induced mortality in plants. <i>New Phytologist</i> , 2019, 223, 22-32.	7.3	134
24	Perpetuating old ponderosa pine. <i>Forest Ecology and Management</i> , 2007, 249, 141-157.	3.2	131
25	Masting in whitebark pine (<i>Pinus albicaulis</i>) depletes stored nutrients. <i>New Phytologist</i> , 2012, 196, 189-199.	7.3	127
26	Interactive effects of historical logging and fire exclusion on ponderosa pine forest structure in the northern Rockies. <i>Ecological Applications</i> , 2010, 20, 1851-1864.	3.8	126
27	How do plants know when other plants are flowering? Resource depletion, pollen limitation and mast seeding in a perennial wildflower. <i>Ecology Letters</i> , 2009, 12, 1119-1126.	6.4	116
28	Ecological implications of xylem cavitation for several Pinaceae in the Pacific Northern USA. <i>Functional Ecology</i> , 2000, 14, 538-545.	3.6	113
29	FREQUENT FIRE ALTERS NITROGEN TRANSFORMATIONS IN PONDEROSA PINE STANDS OF THE INLAND NORTHWEST. <i>Ecology</i> , 2006, 87, 2511-2522.	3.2	110
30	Physiological responses of ponderosa pine in western Montana to thinning, prescribed fire and burning season. <i>Tree Physiology</i> , 2005, 25, 339-348.	3.1	96
31	Future global productivity will be affected by plant trait response to climate. <i>Scientific Reports</i> , 2018, 8, 2870.	3.3	95
32	Fortifying the forest: thinning and burning increase resistance to a bark beetle outbreak and promote forest resilience. <i>Ecological Applications</i> , 2016, 26, 1984-2000.	3.8	89
33	Eyes on the future – evidence for tradeoffs between growth, storage and defense in Norway spruce. <i>New Phytologist</i> , 2019, 222, 144-158.	7.3	88
34	Plant water content integrates hydraulics and carbon depletion to predict drought-induced seedling mortality. <i>Tree Physiology</i> , 2019, 39, 1300-1312.	3.1	79
35	Satellite-based vegetation optical depth as an indicator of drought-driven tree mortality. <i>Remote Sensing of Environment</i> , 2019, 227, 125-136.	11.0	79
36	Forest structure and organic horizon analysis along a fire chronosequence in the low elevation forests of western Montana. <i>Forest Ecology and Management</i> , 2004, 203, 331-343.	3.2	75

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37	Dwarf mistletoe affects whole-tree water relations of Douglas fir and western larch primarily through changes in leaf to sapwood ratios. <i>Oecologia</i> , 2001, 126, 42-52.	2.0	68
38	Ponderosa pine resin defenses and growth: metrics matter. <i>Tree Physiology</i> , 2015, 35, tpv098.	3.1	67
39	Xylem vulnerability to cavitation in <i>Pseudotsuga menziesii</i> and <i>Pinus ponderosa</i> from contrasting habitats. <i>Tree Physiology</i> , 2003, 23, 43-50.	3.1	64
40	Lack of direct evidence for the carbon-starvation hypothesis to explain drought-induced mortality in trees. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, E68; author reply e69.	7.1	63
41	Insect outbreak shifts the direction of selection from fast to slow growth rates in the long-lived conifer <i>Pinus ponderosa</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 7391-7396.	7.1	59
42	Anticipating fire-mediated impacts of climate change using a demographic framework. <i>Functional Ecology</i> , 2018, 32, 1729-1745.	3.6	55
43	Plant carbohydrate depletion impairs water relations and spreads via ectomycorrhizal networks. <i>New Phytologist</i> , 2021, 229, 3172-3183.	7.3	52
44	Canopy structure within a <i>Quercus ilex</i> forested watershed: variations due to location, phenological development, and water availability. <i>Trees - Structure and Function</i> , 1994, 8, 254.	1.9	50
45	Individual traits as determinants of time to death under extreme drought in <i>Pinus sylvestris</i> L.. <i>Tree Physiology</i> , 2016, 36, 1196-1209.	3.1	48
46	Effects of fire exclusion on forest structure and composition in unlogged ponderosa pine/Douglas-fir forests. <i>Forest Ecology and Management</i> , 2006, 237, 418-428.	3.2	47
47	Storage of carbon reserves in spruce trees is prioritized over growth in the face of carbon limitation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	45
48	Plant water relations of <i>Tamarix ramosissima</i> in response to the imposition and alleviation of soil moisture stress. <i>Journal of Arid Environments</i> , 1997, 36, 527-540.	2.4	43
49	Seedling Survival at Timberline Is Critical to Conifer Mountain Forest Elevation and Extent. <i>Frontiers in Forests and Global Change</i> , 2019, 2, .	2.3	40
50	Relative water content consistently predicts drought mortality risk in seedling populations with different morphology, physiology and times to death. <i>Plant, Cell and Environment</i> , 2021, 44, 3322-3335.	5.7	40
51	Disappearing plants: why they hide and how they return. <i>Ecology</i> , 2010, 91, 3407-3413.	3.2	37
52	Coupled ecohydrology and plant hydraulics modeling predicts ponderosa pine seedling mortality and lower treeline in the US Northern Rocky Mountains. <i>New Phytologist</i> , 2019, 221, 1814-1830.	7.3	37
53	Nutrient content in <i>Quercus ilex</i> canopies: Seasonal and spatial variation within a catchment. <i>Plant and Soil</i> , 1995, 168-169, 297-304.	3.7	36
54	Conflicting functional effects of xylem pit structure relate to the growth-longevity trade-off in a conifer species. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 15282-15287.	7.1	34

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55	Fire exclusion and nitrogen mineralization in low elevation forests of western Montana. <i>Soil Biology and Biochemistry</i> , 2006, 38, 952-961.	8.8	29
56	Limited evidence for CO_2 -related growth enhancement in northern Rocky Mountain lodgepole pine populations across climate gradients. <i>Global Change Biology</i> , 2018, 24, 3922-3937.	9.5	29
57	Non-structural carbohydrate dynamics associated with drought-induced die-off in woody species of a shrubland community. <i>Annals of Botany</i> , 2018, 121, 1383-1396.	2.9	29
58	Sensitivity of the Invasive Geophyte <i>Oxalis pes-caprae</i> to Nutrient Availability and Competition. <i>Annals of Botany</i> , 2006, 99, 637-645.	2.9	28
59	Plant carbohydrate storage: intra- and inter-specific trade-offs reveal a major life history trait. <i>New Phytologist</i> , 2022, 235, 2211-2222.	7.3	28
60	Soil moisture variation drives canopy water content dynamics across the western U.S.. <i>Remote Sensing of Environment</i> , 2021, 253, 112233.	11.0	25
61	Succession May Maintain High Leaf Area: Sapwood Ratios and Productivity in Old Subalpine Forests. <i>Ecosystems</i> , 2000, 3, 254-268.	3.4	24
62	Plump trees win under drought. <i>Nature Climate Change</i> , 2014, 4, 666-667.	18.8	23
63	Carbon Storage in Trees: Does Relative Carbon Supply Decrease with Tree Size?. <i>Tree Physiology</i> , 2011, , 287-306.	2.5	22
64	It is risky out there: the costs of emergence and the benefits of prolonged dormancy. <i>Oecologia</i> , 2013, 172, 937-947.	2.0	22
65	Tree physiology and bark beetles. <i>New Phytologist</i> , 2015, 205, 955-957.	7.3	21
66	Forest restoration treatments in a ponderosa pine forest enhance physiological activity and growth under climatic stress. <i>Ecological Applications</i> , 2020, 30, e02188.	3.8	21
67	Species, elevation, and diameter affect whitebark pine and lodgepole pine stored resources in the sapwood and phloem: implications for bark beetle outbreaks. <i>Canadian Journal of Forest Research</i> , 2014, 44, 1312-1319.	1.7	20
68	Ecophysiological Responses of Three Riparian Graminoids to Changes in the Soil Water Table. <i>International Journal of Plant Sciences</i> , 1997, 158, 835-843.	1.3	18
69	Reproductive output of ponderosa pine in response to thinning and prescribed burning in western Montana. <i>Canadian Journal of Forest Research</i> , 2008, 38, 844-850.	1.7	18
70	Positive root pressure is critical for whole-plant desiccation recovery in two species of terrestrial resurrection ferns. <i>Journal of Experimental Botany</i> , 2020, 71, 1139-1150.	4.8	18
71	Effect of environmental factors and bulb mass on the invasive geophyte <i>Oxalis pes-caprae</i> development. <i>Acta Oecologica</i> , 2010, 36, 92-99.	1.1	16
72	Changing growth response to wildfire in old-growth ponderosa pine trees in montane forests of north central Idaho. <i>Global Change Biology</i> , 2012, 18, 1117-1126.	9.5	16

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73	Ecological effects and effectiveness of silvicultural restoration treatments in whitebark pine forests. <i>Forest Ecology and Management</i> , 2018, 429, 534-548.	3.2	14
74	Hydraulic compensation in northern Rocky Mountain conifers: does successional position and life history matter?. <i>Oecologia</i> , 2006, 149, 1-11.	2.0	13
75	Wilderness in the 21st Century: A Framework for Testing Assumptions about Ecological Intervention in Wilderness Using a Case Study of Fire Ecology in the Rocky Mountains. <i>Journal of Forestry</i> , 2016, 114, 384-395.	1.0	13
76	Fuel dynamics after a bark beetle outbreak impacts experimental fuel treatments. <i>Fire Ecology</i> , 2018, 14, .	3.0	13
77	Leaf Traits and Canopy Organization. <i>Ecological Studies</i> , 1999, , 121-133.	1.2	13
78	Modelling Canopy Gas Exchange During Summer Drought. <i>Ecological Studies</i> , 1999, , 149-161.	1.2	8
79	Nutrient content in <i>Quercus ilex</i> canopies: Seasonal and spatial variation within a catchment. , 1995, , 297-304.		8
80	Alpine treeline ecotones are potential refugia for a montane pine species threatened by bark beetle outbreaks. <i>Ecological Applications</i> , 2021, 31, e2274.	3.8	6
81	Native and non-native understory vegetation responses to restoration treatments in a dry conifer forest over 23 years. <i>Forest Ecology and Management</i> , 2021, 481, 118684.	3.2	6
82	Lack of fire has limited physiological impact on old-growth ponderosa pine in dry montane forests of north-central Idaho. , 2011, 21, 3227-3237.		4
83	Management and Succession at the Lick Creek Demonstration/Research Forest, Montana. <i>Journal of Forestry</i> , 2018, 116, 481-486.	1.0	2
84	Sapwood Stored Resources Decline in Whitebark and Lodgepole Pines Attacked by Mountain Pine Beetles (Coleoptera: Curculionidae). <i>Environmental Entomology</i> , 2016, 45, 1463-1475.	1.4	1
85	Forest Restoration Treatments in a Ponderosa Pine Forest Enhance Physiological Activity and Growth Under Climatic Stress. <i>Bulletin of the Ecological Society of America</i> , 2020, 101, e01772.	0.2	0