James A Lutz

List of Publications by Year
in descending order

135 papers	7,495 citations	61945 43 h-index	60583 81 g-index
145 all docs	145 docs citations	145 times ranked	7388 citing authors

#	Article	IF	Citations
1	<scp>CTFS</scp>â€Forest<scp>GEO</scp>: a worldwide network monitoring forests in an era of global change. Global Change Biology, 2015, 21, 528-549.	4.2	473
2	Global importance of largeâ€diameter trees. Global Ecology and Biogeography, 2018, 27, 849-864.	2.7	330
3	Scaleâ€dependent relationships between tree species richness and ecosystem function in forests. Journal of Ecology, 2013, 101, 1214-1224.	1.9	265
4	Restoring forest resilience: From reference spatial patterns to silvicultural prescriptions and monitoring. Forest Ecology and Management, 2013, 291, 442-457.	1.4	264
5	Forest ecosystems, disturbance, and climatic change in Washington State, USA. Climatic Change, 2010, 102, 129-158.	1.7	256
6	Plant diversity increases with the strength of negative density dependence at the global scale. Science, 2017, 356, 1389-1392.	6.0	222
7	Climatic water deficit, tree species ranges, and climate change in Yosemite National Park. Journal of Biogeography, 2010, 37, 936-950.	1.4	217
8	Lower forest density enhances snow retention in regions with warmer winters: A global framework developed from plot-scale observations and modeling. Water Resources Research, 2013, 49, 6356-6370.	1.7	200
9	TREE MORTALITY DURING EARLY FOREST DEVELOPMENT: A LONG-TERM STUDY OF RATES, CAUSES, AND CONSEQUENCES. Ecological Monographs, 2006, 76, 257-275.	2.4	184
10	Ecological Importance of Large-Diameter Trees in a Temperate Mixed-Conifer Forest. PLoS ONE, 2012, 7, e36131.	1.1	181
11	The Science of Firescapes: Achieving Fire-Resilient Communities. BioScience, 2016, 66, 130-146.	2.2	157
12	Mapped versus actual burned area within wildfire perimeters: Characterizing the unburned. Forest Ecology and Management, 2012, 286, 38-47.	1.4	155
13	Canopy closure exerts weak controls on understory dynamics: a 30â€year study of overstoryâ€“understory interactions. Ecological Monographs, 2013, 83, 221-237.	2.4	143
14	Comparisons between field- and LiDAR-based measures of stand structural complexity. Canadian Journal of Forest Research, 2010, 40, 761-773.	0.8	140
15	Mixed severity fire effects within the Rim fire: Relative importance of local climate, fire weather, topography, and forest structure. Forest Ecology and Management, 2015, 358, 62-79.	1.4	125
16	Water balance and topography predict fire and forest structure patterns. Forest Ecology and Management, 2015, 338, 1-13.	1.4	125
17	ForestGEO: Understanding forest diversity and dynamics through a global observatory network. Biological Conservation, 2021, 253, 108907.	1.9	122
18	Climate, lightning ignitions, and fire severity in Yosemite National Park, California, USA. International Journal of Wildland Fire, 2009, 18, 765.	1.0	114

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19	Assessing fire effects on forest spatial structure using a fusion of Landsat and airborne LiDAR data in Yosemite National Park. Remote Sensing of Environment, 2014, 151, 89-101.	4.6	113
20	The Importance of Large-Diameter Trees to Forest Structural Heterogeneity. PLoS ONE, 2013, 8, e82784.	1.1	113
21	Landscape-scale effects of fire severity on mixed-conifer and red fir forest structure in Yosemite National Park. Forest Ecology and Management, 2013, 287, 17-31.	1.4	111
22	Ground-based testing of MODIS fractional snow cover in subalpine meadows and forests of the Sierra Nevada. Remote Sensing of Environment, 2013, 128, 44-57.	4.6	103
23	Detecting unburned areas within wildfire perimeters using Landsat and ancillary data across the northwestern United States. Remote Sensing of Environment, 2016, 186, 275-285.	4.6	97
24	Examining conifer canopy structural complexity across forest ages and elevations with LiDAR data. Canadian Journal of Forest Research, 2010, 40, 774-787.	0.8	95
25	Twentieth-century decline of large-diameter trees in Yosemite National Park, California, USA. Forest Ecology and Management, 2009, 257, 2296-2307.	1.4	93
26	Direct and indirect effects of climate on richness drive the latitudinal diversity gradient in forest trees. Ecology Letters, 2019, 22, 245-255.	3.0	92
27	Differences in wildfires among ecoregions and land management agencies in the Sierra Nevada region, California, USA. Ecosphere, 2012, 3, 1-20.	1.0	91
28	Local spatial structure of forest biomass and its consequences for remote sensing of carbon stocks. Biogeosciences, 2014, 11, 6827-6840.	1.3	89
29	Fire Regime Attributes of Wildland Fires in Yosemite National Park, USA. Fire Ecology, 2007, 3, 34-52.	1.1	86
30	Spatial aspects of tree mortality strongly differ between young and oldâ€growth forests. Ecology, 2015, 96, 2855-2861.	1.5	84
31	POTENTIAL SITE PRODUCTIVITY INFLUENCES THE RATE OF FOREST STRUCTURAL DEVELOPMENT. Ecological Applications, 2008, 18, 899-910.	1.8	83
32	Spatially nonrandom tree mortality and ingrowth maintain equilibrium pattern in an oldâ€growth <i>Pseudotsugaâ€“Tsuga</i> forest. Ecology, 2014, 95, 2047-2054.	1.5	81
33	Climatic influences on interannual variability in regional burn severity across western US forests. International Journal of Wildland Fire, 2017, 26, 269.	1.0	76
34	Comparative evolutionary diversity and phylogenetic structure across multiple forest dynamics plots: a mega-phylogeny approach. Frontiers in Genetics, 2014, 5, 358.	1.1	71
35	Towards a new paradigm in fire severity research using doseâ€“response experiments. International Journal of Wildland Fire, 2016, 25, 158.	1.0	70
36	Fire Frequency, Area Burned, and Severity: A Quantitative Approach to Defining a Normal Fire Year. Fire Ecology, 2011, 7, 51-65.	1.1	62

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37	Interpretation and topographic compensation of conifer canopy self-shadowing. Remote Sensing of Environment, 2008, 112, 3820-3832.	4.6	60
38	Patch dynamics and the development of structural and spatial heterogeneity in Pacific Northwest forests. Canadian Journal of Forest Research, 2011, 41, 2276-2291.	0.8	58
39	Fixing a snag in carbon emissions estimates from wildfires. Global Change Biology, 2019, 25, 3985-3994.	4.2	53
40	The Evolution of Long-Term Data for Forestry: Large Temperate Research Plots in an Era of Global Change. Northwest Science, 2015, 89, 255-269.	0.1	52
41	Fire Refugia: What Are They, and Why Do They Matter for Global Change?. BioScience, 0, , .	2.2	51
42	Forest structure and pattern vary by climate and landform across active-fire landscapes in the montane Sierra Nevada. Forest Ecology and Management, 2019, 437, 70-86.	1.4	48
43	Ecological Importance of Small-Diameter Trees to the Structure, Diversity and Biomass of a Tropical Evergreen Forest at Rabi, Gabon. PLoS ONE, 2016, 11, e0154988.	1.1	48
44	Modeling the Effects of Fire Severity and Spatial Complexity on Small Mammals in Yosemite National Park, California. Fire Ecology, 2008, 4, 83-104.	1.1	47
45	Continent-wide tree fecundity driven by indirect climate effects. Nature Communications, 2021, 12, 1242.	5.8	46
46	Joint effects of climate, tree size, and year on annual tree growth derived from treeâ€ring records of ten globally distributed forests. Global Change Biology, 2022, 28, 245-266.	4.2	46
47	Remnants of an ancient forest provide ecological context for Early Miocene fossil apes. Nature Communications, 2014, 5, 3236.	5.8	45
48	Is there tree senescence? The fecundity evidence. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	42
49	Spatially explicit modeling of overstory manipulations in young forests: Effects on stand structure and light. Ecological Modelling, 2009, 220, 3565-3575.	1.2	41
50	Post-fire morel (Morchella) mushroom abundance, spatial structure, and harvest sustainability. Forest Ecology and Management, 2016, 377, 16-25.	1.4	41
51	Multi-decadal establishment for single-cohort Douglas-fir forests. Canadian Journal of Forest Research, 2014, 44, 1068-1078.	0.8	39
52	Effects of fire radiative energy density dose on Pinus contorta and Larix occidentalis seedling physiology and mortality. International Journal of Wildland Fire, 2017, 26, 82.	1.0	39
53	Climate Contributors to Forest Mosaics: Ecological Persistence Following Wildfire. Northwest Science, 2015, 89, 219-238.	0.1	38
54	Evaluating a new method for reconstructing forest conditions from General Land Office survey records. Ecological Applications, 2017, 27, 1498-1513.	1.8	38

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55	Canopy Adjustment and Improved Cloud Detection for Remotely Sensed Snow Cover Mapping. Water Resources Research, 2020, 56, e2019WR024914.	1.7	38
56	Reconciling niches and neutrality in a subalpine temperate forest. Ecosphere, 2017, 8, e01847.	1.0	37
57	The importance of small fire refugia in the central Sierra Nevada, California, USA. Forest Ecology and Management, 2019, 432, 1041-1052.	1.4	37
58	Spatiotemporal patterns of unburned areas within fire perimeters in the northwestern United States from 1984 to 2014. Ecosphere, 2018, 9, e02029.	1.0	36
59	Detecting tree mortality with Landsat-derived spectral indices: Improving ecological accuracy by examining uncertainty. Remote Sensing of Environment, 2020, 237, 111497.	4.6	36
60	Development and testing of a snow interceptometer to quantify canopy water storage and interception processes in the rain/snow transition zone of the North Cascades, Washington, USA. Water Resources Research, 2013, 49, 3243-3256.	1.7	35
61	A forest reconstruction model to assess changes to Sierra Nevada mixed-conifer forest during the fire suppression era. Forest Ecology and Management, 2015, 354, 104-118.	1.4	35
62	Wildfire and drought moderate the spatial elements of tree mortality. Ecosphere, 2020, 11, e03214.	1.0	35
63	Multi-scale assessment of post-fire tree mortality models. International Journal of Wildland Fire, 2019, 28, 46.	1.0	34
64	Climate extremes may be more important than climate means when predicting species range shifts. Climatic Change, 2020, 163, 579-598.	1.7	34
65	Evaluating observational methods to quantify snow duration under diverse forest canopies. Water Resources Research, 2015, 51, 1203-1224.	1.7	33
66	Previous wildfires and management treatments moderate subsequent fire severity. Forest Ecology and Management, 2022, 504, 119764.	1.4	31
67	Patterns of nitrogenâ€fixing tree abundance in forests across Asia and America. Journal of Ecology, 2019, 107, 2598-2610.	1.9	29
68	Fuel dynamics after reintroduced fire in an old-growth Sierra Nevada mixed-conifer forest. Fire Ecology, 2019, 15, .	1.1	28
69	Arbuscular mycorrhizal trees influence the latitudinal beta-diversity gradient of tree communities in forests worldwide. Nature Communications, 2021, 12, 3137.	5.8	28
70	Tamm Review: Ecological principles to guide post-fire forest landscape management in the Inland Pacific and Northern Rocky Mountain regions. Forest Ecology and Management, 2022, 504, 119680.	1.4	28
71	Tree Circumference Dynamics in Four Forests Characterized Using Automated Dendrometer Bands. PLoS ONE, 2016, 11, e0169020.	1.1	25
72	Using climateâ€driven leaf phenology and growth to improve predictions of gross primary productivity in North American forests. Global Change Biology, 2020, 26, 6974-6988.	4.2	24

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73	Distribution of biomass dynamics in relation to tree size in forests across the world. New Phytologist, 2022, 234, 1664-1677.	3.5	24
74	Shrub Communities, Spatial Patterns, and Shrub-Mediated Tree Mortality following Reintroduced Fire in Yosemite National Park, California, USA. Fire Ecology, 2017, 13, 104-126.	1.1	23
75	Community composition and allometry of Leucothoe davisiae, Cornus sericea, and Chrysolepis sempervirens. Canadian Journal of Forest Research, 2014, 44, 677-683.	0.8	22
76	Structure of early old-growth Douglas-fir forests in the Pacific Northwest. Forest Ecology and Management, 2015, 335, 11-25.	1.4	22
77	Uncertainty analysis: an evaluation metric for synthesis science. Ecosphere, 2015, 6, 1-12.	1.0	21
78	Can lowâ€severity fire reverse compositional change in montane forests of the Sierra Nevada, California, USA?. Ecosphere, 2016, 7, e01484.	1.0	21
79	Advancing Fire Science with Large Forest Plots and a Long-Term Multidisciplinary Approach. Fire, 2018, 1, 5.	1.2	21
80	Species Diversity Associated with Foundation Species in Temperate and Tropical Forests. Forests, 2019, 10, 128.	0.9	21
81	Tree Canopies Reflect Mycorrhizal Composition. Geophysical Research Letters, 2021, 48, e2021GL092764.	1.5	21
82	Limits to reproduction and seed size-number trade-offs that shape forest dominance and future recovery. Nature Communications, 2022, 13, 2381.	5.8	21
83	Using Fiber-Optic Distributed Temperature Sensing to Measure Ground Surface Temperature in Thinned and Unthinned Forests. Northwest Science, 2012, 86, 108-121.	0.1	20
84	Observations of distributed snow depth and snow duration within diverse forest structures in a maritime mountain watershed. Water Resources Research, 2015, 51, 9353-9366.	1.7	20
85	Fire and the Distribution and Uncertainty of Carbon Sequestered as Aboveground Tree Biomass in Yosemite and Sequoia & Kings Canyon National Parks. Land, 2017, 6, 10.	1.2	20
86	Mycorrhizal type influences plant density dependence and species richness across 15 temperate forests. Ecology, 2021, 102, e03259.	1.5	20
87	Large-diameter trees dominate snag and surface biomass following reintroduced fire. Ecological Processes, 2020, 9, .	1.6	20
88	Crowding, climate, and the case for social distancing among trees. Ecological Applications, 2022, 32, e2507.	1.8	20
89	Unprecedented remote sensing data over King and Rim megafires in the Sierra Nevada Mountains of California. Ecology, 2016, 97, 3244-3244.	1.5	19
90	A physiological model for predicting dynamics of tree stemâ€wood nonâ€structural carbohydrates. Journal of Ecology, 2020, 108, 702-718.	1.9	19

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91	Biomass and Burning Characteristics of Sugar Pine Cones. Fire Ecology, 2012, 8, 58-70.	1.1	18
92	Divergent, age-associated fungal communities of Pinus flexilis and Pinus longaeva. Forest Ecology and Management, 2021, 494, 119277.	1.4	18
93	Decline of an ecotone forest: 50 years of demography in the southern boreal forest. Ecosphere, 2019, 10, e02698.	1.0	17
94	Forest structure predictive of fisher (Pekania pennanti) dens exists in recently burned forest in Yosemite, California, USA. Forest Ecology and Management, 2019, 444, 174-186.	1.4	17
95	Wildfire severity and postfire salvage harvest effects on longâ€term forest regeneration. Ecosphere, 2020, 11, e03199.	1.0	17
96	Burn weather and three-dimensional fuel structure determine post-fire tree mortality. Landscape Ecology, 2020, 35, 859-878.	1.9	16
97	Determination of burn severity models ranging from regional to national scales for the conterminous United States. Remote Sensing of Environment, 2021, 263, 112569.	4.6	16
98	Individual speciesâ€"area relationships in temperate coniferous forests. Journal of Vegetation Science, 2018, 29, 317-324.	1.1	15
99	Topographic variation in tree group and gap structure in Sierra Nevada mixed-conifer forests with active fire regimes. Forest Ecology and Management, 2020, 472, 118220.	1.4	15
100	Post-fire landscape evaluations in Eastern Washington, USA: Assessing the work of contemporary wildfires. Forest Ecology and Management, 2022, 504, 119796.	1.4	15
101	The Survival of Pinus ponderosa Saplings Subjected to Increasing Levels of Fire Behavior and Impacts on Post-Fire Growth. Fire, 2019, 2, 23.	1.2	14
102	Is pretenure interdisciplinary research a career risk?. Eos, 2012, 93, 311-312.	0.1	13
103	Predicting the influence of climate on grassland area burned in Xilingol, China with dynamic simulations of autoregressive distributed lag models. PLoS ONE, 2020, 15, e0229894.	1.1	13
104	Chemical Similarity of Co-occurring Trees Decreases With Precipitation and Temperature in North American Forests. Frontiers in Ecology and Evolution, 2021, 9, .	1.1	13
105	The importance of large-diameter trees to the creation of snag and deadwood biomass. Ecological Processes, 2021, 10, .	1.6	12
106	Large-diameter trees, snags, and deadwood in southern Utah, USA. Ecological Processes, 2021, 10, .	1.6	12
107	Density-dependent processes fluctuate over 50Âyears in an ecotone forest. Oecologia, 2019, 191, 909-918.	0.9	11
108	<i>allodb</i>: An R package for biomass estimation at globally distributed extratropical forest plots. Methods in Ecology and Evolution, 2022, 13, 330-338.	2.2	11

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109	Globally, tree fecundity exceeds productivity gradients. Ecology Letters, 2022, 25, 1471-1482.	3.0	11
110	Determinants of spatial patterns of canopy tree species in a tropical evergreen forest in Gabon. Journal of Vegetation Science, 2019, 30, 929-939.	1.1	10
111	The distribution of woody species in relation to climate and fire in Yosemite National Park, California, USA. Fire Ecology, 2020, 16, .	1.1	10
112	Response to Comment on â€œPlant diversity increases with the strength of negative density dependence at the global scaleâ€. Science, 2018, 360, .	6.0	9
113	Genetic and Spatial Structuring of Populus tremuloides in a Mixed-Species Forest of Southwestern Utah, USA. Western North American Naturalist, 2019, 79, 63.	0.2	9
114	Estimating historical forest density from landâ€survey data: a response to Baker and Williams (2018). Ecological Applications, 2019, 29, e01968.	1.8	8
115	Demographic composition, not demographic diversity, predicts biomass and turnover across temperate and tropical forests. Global Change Biology, 2022, 28, 2895-2909.	4.2	8
116	Determining the sensitivity of grassland area burned to climate variation in Xilingol, China, with an autoregressive distributed lag approach. International Journal of Wildland Fire, 2019, 28, 628.	1.0	7
117	Seasonal weather and climate prediction over area burned in grasslands of northeast China. Scientific Reports, 2020, 10, 19961.	1.6	7
118	Response to Comment on â€œPlant diversity increases with the strength of negative density dependence at the global scaleâ€. Science, 2018, 360, .	6.0	6
119	Shared friends counterbalance shared enemies in old forests. Ecology, 2021, 102, e03495.	1.5	6
120	EARLY MIOCENE PALEOCLIMATE AND PALEOENVIRONMENTS ACROSS EAST AFRICA. , 2017, , .		6
121	Climate warming may weaken stabilizing mechanisms in old forests. Ecological Monographs, 2022, 92, .	2.4	6
122	Dancing with Douglasâ€fir: Determinism dominates fungal community assembly processes. Journal of Ecology, 2022, 110, 1857-1870.	1.9	6
123	Postfire treatments alter forest canopy structure up to three decades after fire. Forest Ecology and Management, 2021, 505, 119872.	1.4	5
124	Drone-acquired data reveal the importance of forest canopy structure in predicting tree diversity. Forest Ecology and Management, 2022, 505, 119945.	1.4	5
125	Largeâ€diameter trees affect snow duration in postâ€fire oldâ€growth forests. Ecohydrology, 2022, 15, .	1.1	5
126	Scaleâ€dependent speciesâ€"area relationship: Nicheâ€based versus stochastic processes in a typical subtropical forest. Journal of Ecology, 2022, 110, 1883-1895.	1.9	5

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127	The Post-Fire Assembly Processes of Tree Communities Based on Spatial Analysis of a Sierra Nevada Mixed-Conifer Forest. Fire, 2020, 3, 72.	1.2	3
128	Improving intraâ€•and interâ€annual GPP predictions by using individual tree inventories and leaf growth dynamics. Journal of Applied Ecology, 2021, 58, 2315-2328.	1.9	3
129	Continentalâ€scale parameterization and prediction of leaf phenology for the North American forests. Global Ecology and Biogeography, 2022, 31, 1603-1615.	2.7	3
130	Environmentâ€•and traitâ€mediated scaling of tree occupancy in forests worldwide. Global Ecology and Biogeography, 2019, 28, 1155-1167.	2.7	2
131	Soil Enzyme Activity and Soil Nutrients Jointly Influence Post-Fire Habitat Models in Mixed-Conifer Forests of Yosemite National Park, USA. Fire, 2020, 3, 54.	1.2	2
132	Mid-career graduate students in ecology. Frontiers in Ecology and the Environment, 2008, 6, 392-393.	1.9	1
133	Interactions between all pairs of neighboring trees in 16 forests worldwide reveal details of unique ecological processes in each forest, and provide windows into their evolutionary histories. PLoS Computational Biology, 2021, 17, e1008853.	1.5	1
134	Predicting soil mineralized nitrogen dynamics with fine root growth and microbial processes in temperate forests. Biogeochemistry, 2022, 158, 21.	1.7	1
135	Preface: Special Issue on Wildland Fires. Land, 2018, 7, 46.	1.2	0