# Marcy E Litvak

List of Publications by Year
in descending order



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|---|---|---|---|
| 94 papers | 6,040 citations | 81889 39 h-index | 74160 75 g-index |
| 97 all docs | 97 docs citations | 97 times ranked | 8329 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Temperature memory and non-structural carbohydrates mediate legacies of a hot drought in trees across the southwestern USA. Tree Physiology, 2022, 42, 71-85. | 3.1 | 17 |
| 2 | Satellite solar-induced chlorophyll fluorescence and near-infrared reflectance capture complementary aspects of dryland vegetation productivity dynamics. Remote Sensing of Environment, 2022, 270, 112858. | 11.0 | 26 |
| 3 | Informing Natureâ€based Climate Solutions for the United States with the bestâ€available science. Global Change Biology, 2022, 28, 3778-3794. | 9.5 | 28 |
| 4 | Exceptional heat and atmospheric dryness amplified losses of primary production during the 2020 U.S. Southwest hot drought. Global Change Biology, 2022, 28, 4794-4806. | 9.5 | 46 |
| 5 | Sensitivity of soil organic matter to climate and fire in a desert grassland. Biogeochemistry, 2021, 156, 59-74. | 3.5 | 7 |
| 6 | Temporal controls on crown nonstructural carbohydrates in southwestern US tree species. Tree Physiology, 2021, 41, 388-402. | 3.1 | 12 |
| 7 | Recent land cover changes in the Southwestern US lead to an increase in surface temperature. Agricultural and Forest Meteorology, 2021, 297, 108246. | 4.8 | 13 |
| 8 | Seasonal Precipitation and Soil Moisture Relationships Across Forests and Woodlands in the Southwestern United States. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG005986. | 3.0 | 11 |
| 9 | SoDaH: the SOils DAta Harmonization database, an open-source synthesis of soil data from research networks, version 1.0. Earth System Science Data, 2021, 13, 1843-1854. | 9.9 | 17 |
| 10 | State changes: insights from the U.S. Long Term Ecological Research Network. Ecosphere, 2021, 12, e03433. | 2.2 | 6 |
| 11 | Representativeness of Eddy-Covariance flux footprints for areas surrounding AmeriFlux sites. Agricultural and Forest Meteorology, 2021, 301-302, 108350. | 4.8 | 125 |
| 12 | Future fire-driven landscape changes along a southwestern US elevation gradient. Climatic Change, 2021, 166, 1. | 3.6 | 2 |
| 13 | Divergent responses of primary production to increasing precipitation variability in global drylands. Global Change Biology, 2021, 27, 5225-5237. | 9.5 | 31 |
| 14 | Dynamic global vegetation models underestimate net CO<sub>2</sub> flux mean and inter-annual variability in dryland ecosystems. Environmental Research Letters, 2021, 16, 094023. | 5.2 | 23 |
| 15 | Watching plantsâ€™ dance: movements of live and dead branches linked to atmospheric water demand. Ecosphere, 2021, 12, e03705. | 2.2 | 1 |
| 16 | Seasonality in aerodynamic resistance across a range of North American ecosystems. Agricultural and Forest Meteorology, 2021, 310, 108613. | 4.8 | 14 |
| 17 | Optimizing Carbon Cycle Parameters Drastically Improves Terrestrial Biosphere Model Underestimates of Dryland Mean Net CO<sub>2</sub> Flux and its Interâ€Annual Variability. Journal of Geophysical Research G: Biogeosciences, 2021, 126, . | 3.0 | 8 |
| 18 | The aboveground and belowground growth characteristics of juvenile conifers in the southwestern United States. Ecosphere, 2021, 12, e03839. | 2.2 | 8 |

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|---|---|---|---|
| 19 | Improved dryland carbon flux predictions with explicit consideration of water-carbon coupling. Communications Earth & Environment, 2021, 2, . | 6.8 | 16 |
| 20 | Ecosystemâ€Level Energy and Water Budgets Are Resilient to Canopy Mortality in Sparse Semiarid Biomes. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2020JG005858. | 3.0 | 2 |
| 21 | Synergistic use of SMAP and OCO-2 data in assessing the responses of ecosystem productivity to the 2018 U.S. drought. Remote Sensing of Environment, 2020, 251, 112062. | 11.0 | 34 |
| 22 | Montane forest productivity across a semiarid climatic gradient. Global Change Biology, 2020, 26, 6945-6958. | 9.5 | 22 |
| 23 | Atmosphereâ€Soil Interactions Govern Ecosystem Flux Sensitivity to Environmental Conditions in Semiarid Woody Ecosystems Over Varying Timescales. Journal of Geophysical Research G: Biogeosciences, 2020, 125, e2019JG005554. | 3.0 | 6 |
| 24 | Allometric Relationships for Predicting Aboveground Biomass and Sapwood Area of Oneseed Juniper (Juniperus monosperma) Trees. Frontiers in Plant Science, 2020, 11, 94. | 3.6 | 10 |
| 25 | A 3-dimensional model of Pinus edulis and Juniperus monosperma root distributions in New Mexico: implications for soil water dynamics. Plant and Soil, 2020, 450, 337-355. | 3.7 | 14 |
| 26 | Testing water fluxes and storage from two hydrology configurations within the ORCHIDEE land surface model across US semi-arid sites. Hydrology and Earth System Sciences, 2020, 24, 5203-5230. | 4.9 | 16 |
| 27 | Long-Term (1986â€“2015) Crop Water Use Characterization over the Upper Rio Grande Basin of United States and Mexico Using Landsat-Based Evapotranspiration. Remote Sensing, 2019, 11, 1587. | 4.0 | 41 |
| 28 | Sensitivity of dryland plant allometry to climate. Functional Ecology, 2019, 33, 2290-2303. | 3.6 | 24 |
| 29 | Integrating Speciesâ€Specific Information in Models Improves Regional Projections Under Climate Change. Geophysical Research Letters, 2019, 46, 6554-6562. | 4.0 | 10 |
| 30 | Allometric relationships for Quercus gambelii and Robinia neomexicana for biomass estimation following disturbance. Ecosphere, 2019, 10, e02905. | 2.2 | 9 |
| 31 | Snowmeltâ€Driven Tradeâ€Offs Between Early and Late Season Productivity Negatively Impact Forest Carbon Uptake During Drought. Geophysical Research Letters, 2018, 45, 3087-3096. | 4.0 | 31 |
| 32 | Conifer radial growth response to recent seasonal warming and drought from the southwestern USA. Forest Ecology and Management, 2018, 418, 55-62. | 3.2 | 30 |
| 33 | Chlorophyll Fluorescence Better Captures Seasonal and Interannual Gross Primary Productivity Dynamics Across Dryland Ecosystems of Southwestern North America. Geophysical Research Letters, 2018, 45, 748-757. | 4.0 | 109 |
| 34 | Climate sensitivity functions and net primary production: A framework for incorporating climate mean and variability. Ecology, 2018, 99, 576-582. | 3.2 | 73 |
| 35 | A net ecosystem carbon budget for snow dominated forested headwater catchments: linking water and carbon fluxes to critical zone carbon storage. Biogeochemistry, 2018, 138, 225-243. | 3.5 | 17 |
| 36 | Shrubland carbon sink depends upon winter water availability in the warm deserts of North America. Agricultural and Forest Meteorology, 2018, 249, 407-419. | 4.8 | 49 |

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|---|---|---|---|
| 37 | Reevaluating growing season length controls on net ecosystem production in evergreen conifer forests. Scientific Reports, 2018, 8, 17973. | 3.3 | 13 |
| 38 | Evaluation of a Data Assimilation System for Land Surface Models Using CLM4.5. Journal of Advances in Modeling Earth Systems, 2018, 10, 2471-2494. | 3.8 | 54 |
| 39 | Transport in a coordinated soil-root-xylem-phloem leaf system. Advances in Water Resources, 2018, 119, 1-16. | 3.8 | 31 |
| 40 | Biocrust contribution to ecosystem carbon fluxes varies along an elevational gradient. Ecosphere, 2018, 9, e02315. | 2.2 | 16 |
| 41 | Plant, microbial and ecosystem carbon use efficiencies interact to stabilize microbial growth as a fraction of gross primary production. New Phytologist, 2017, 214, 1518-1526. | 7.3 | 62 |
| 42 | Prototype campaign assessment of disturbanceâ€induced tree loss effects on surface properties for atmospheric modeling. Ecosphere, 2017, 8, e01698. | 2.2 | 5 |
| 43 | Assessing drought-induced change in a piÃ±on-juniper woodland with Landsat: a multiple endmember spectral mixture analysis approach. International Journal of Remote Sensing, 2017, 38, 4156-4176. | 2.9 | 7 |
| 44 | <scp>CO</scp><sub>2</sub> exchange and evapotranspiration across dryland ecosystems of southwestern North America. Global Change Biology, 2017, 23, 4204-4221. | 9.5 | 164 |
| 45 | Global patterns of drought recovery. Nature, 2017, 548, 202-205. | 27.8 | 560 |
| 46 | Tree Mortality Decreases Water Availability and Ecosystem Resilience to Drought in PiÃ±onâ€Juniper Woodlands in the Southwestern U.S.. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 3343-3361. | 3.0 | 25 |
| 47 | Evaluating the effect of alternative carbon allocation schemes in a land surface modelÂ(CLM4.5) on carbon fluxes, pools, and turnover in temperate forests. Geoscientific Model Development, 2017, 10, 3499-3517. | 3.6 | 32 |
| 48 | Remote Sensing Based Simple Models of GPP in Both Disturbed and Undisturbed PiÃ±on-Juniper Woodlands in the Southwestern U.S.. Remote Sensing, 2016, 8, 20. | 4.0 | 13 |
| 49 | Woody Biomass Estimation in a Southwestern U.S. Juniper Savanna Using LiDAR-Derived Clumped Tree Segmentation and Existing Allometries. Remote Sensing, 2016, 8, 453. | 4.0 | 24 |
| 50 | Terrestrial carbon balance in a drier world: the effects of water availability in southwestern North America. Global Change Biology, 2016, 22, 1867-1879. | 9.5 | 142 |
| 51 | Warm spring reduced carbon cycle impact of the 2012 US summer drought. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5880-5885. | 7.1 | 340 |
| 52 | The sensitivity of carbon exchanges in Great Plains grasslands to precipitation variability. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 280-294. | 3.0 | 33 |
| 53 | Toward accounting for ecoclimate teleconnections: intra- and inter-continental consequences of altered energy balance after vegetation change. Landscape Ecology, 2016, 31, 181-194. | 4.2 | 53 |
| 54 | Drought-induced piÃ±on mortality alters the seasonal dynamics of microbial activity in piÃ±onâ€“juniper woodland. Soil Biology and Biochemistry, 2016, 92, 91-101. | 8.8 | 5 |

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|---|---|---|---|
| 55 | A multisite analysis of temporal random errors in soil CO<sub>2</sub> efflux. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 737-751. | 3.0 | 17 |
| 56 | Critical Zone Services: Expanding Context, Constraints, and Currency beyond Ecosystem Services. Vadose Zone Journal, 2015, 14, vzj2014.10.0142. | 2.2 | 60 |
| 57 | The ecological role of small rainfall events in a desert grassland. Ecohydrology, 2015, 8, 1614-1622. | 2.4 | 34 |
| 58 | Soil moisture response to snowmelt timing in mixedâ€conifer subalpine forests. Hydrological Processes, 2015, 29, 2782-2798. | 2.6 | 92 |
| 59 | Influence of ENSO and the NAO on terrestrial carbon uptake in the Texasâ€northern Mexico region. Global Biogeochemical Cycles, 2015, 29, 1247-1265. | 4.9 | 29 |
| 60 | Global satellite monitoring of climate-induced vegetation disturbances. Trends in Plant Science, 2015, 20, 114-123. | 8.8 | 183 |
| 61 | Grassland to shrubland state transitions enhance carbon sequestration in the northern Chihuahuan Desert. Global Change Biology, 2015, 21, 1226-1235. | 9.5 | 91 |
| 62 | Climatic and landscape influences on soil moisture are primary determinants of soil carbon fluxes in seasonally snow-covered forest ecosystems. Biogeochemistry, 2015, 123, 447-465. | 3.5 | 50 |
| 63 | Root-associated fungal community response to drought-associated changes in vegetation community. Mycologia, 2015, 107, 1089-1104. | 1.9 | 12 |
| 64 | Simulating the Effect of Vegetation in Formation of Pedogenic Carbonate. Soil Science Society of America Journal, 2014, 78, 914-924. | 2.2 | 28 |
| 65 | Extracellular enzyme kinetics scale with resource availability. Biogeochemistry, 2014, 121, 287-304. | 3.5 | 147 |
| 66 | Speciesâ€specific water use by woody plants on the Edwards Plateau, Texas. Ecohydrology, 2014, 7, 278-290. | 2.4 | 10 |
| 67 | Stream water carbon controls in seasonally snow-covered mountain catchments: impact of inter-annual variability of water fluxes, catchment aspect and seasonal processes. Biogeochemistry, 2014, 118, 273-290. | 3.5 | 60 |
| 68 | Waterâ€storage capacity controls energy partitioning and water use in karst ecosystems on the Edwards Plateau, Texas. Ecohydrology, 2014, 7, 127-138. | 2.4 | 57 |
| 69 | Small-scale variability in water storage and plant available water in shallow, rocky soils. Plant and Soil, 2014, 385, 193-204. | 3.7 | 23 |
| 70 | Climate Change Impacts on Future Carbon Stores and Management of Warm Deserts of the United States. Rangelands, 2014, 36, 16-24. | 1.9 | 12 |
| 71 | Detecting mortality induced structural and functional changes in a piÃ±on-juniper woodland using Landsat and RapidEye time series. Remote Sensing of Environment, 2014, 151, 102-113. | 11.0 | 26 |
| 72 | Thermal optimality of net ecosystem exchange of carbon dioxide and underlying mechanisms. New Phytologist, 2012, 194, 775-783. | 7.3 | 111 |

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|---|---|---|---|
| 73 | Deep Autotrophic Soil Respiration in Shrubland and Woodland Ecosystems in Central New Mexico. Ecosystems, 2012, 15, 83-96. | 3.4 | 27 |
| 74 | Assessing net ecosystem carbon exchange of U.S. terrestrial ecosystems by integrating eddy covariance flux measurements and satellite observations. Agricultural and Forest Meteorology, 2011, 151, 60-69. | 4.8 | 157 |
| 75 | Broadband, red-edge information from satellites improves early stress detection in a New Mexico conifer woodland. Remote Sensing of Environment, 2011, 115, 3640-3646. | 11.0 | 194 |
| 76 | Differential responses of production and respiration to temperature and moisture drive the carbon balance across a climatic gradient in New Mexico. Global Change Biology, 2011, 17, 410-424. | 9.5 | 148 |
| 77 | Simple assessment of needleleaf and broadleaf chlorophyll content using a flatbed color scanner. Canadian Journal of Forest Research, 2011, 41, 1445-1451. | 1.7 | 6 |
| 78 | How Water, Carbon, and Energy Drive Critical Zone Evolution: The Jemezâ€“Santa Catalina Critical Zone Observatory. Vadose Zone Journal, 2011, 10, 884-899. | 2.2 | 111 |
| 79 | Positive feedback between microclimate and shrub encroachment in the northern Chihuahuan desert. Ecosphere, 2010, 1, 1-11. | 2.2 | 290 |
| 80 | On the impact of shrub encroachment on microclimate conditions in the northern Chihuahuan desert. Journal of Geophysical Research, 2010, 115, . | 3.3 | 56 |
| 81 | Ecohydrological controls on snowmelt partitioning in mixedâ€conifer subâ€alpine forests. Ecohydrology, 2009, 2, 129-142. | 2.4 | 137 |
| 82 | Estimation of net ecosystem carbon exchange for the conterminous United States by combining MODIS and AmeriFlux data. Agricultural and Forest Meteorology, 2008, 148, 1827-1847. | 4.8 | 221 |
| 83 | Factors that control Typha marsh evapotranspiration. Aquatic Botany, 2007, 86, 97-106. | 1.6 | 72 |
| 84 | An eddy covariance mesonet to measure the effect of forest age on land-atmosphere exchange. Global Change Biology, 2006, 12, 2146-2162. | 9.5 | 169 |
| 85 | Coupling between Land Ecosystems and the Atmospheric Hydrologic Cycle through Biogenic Aerosol Pathways. Bulletin of the American Meteorological Society, 2005, 86, 1738-1742. | 3.3 | 43 |
| 86 | Supply and demand processes as controls over needle monoterpene synthesis and concentration in Douglas fir [Pseudotsuga menziesii (Mirb.) Franco]. Oecologia, 2002, 132, 382-391. | 2.0 | 44 |
| 87 | Monoterpene emission from coniferous trees in response to elevated CO2 concentration and climate warming. Global Change Biology, 1999, 5, 252-267. | 9.5 | 83 |
| 88 | Patterns of induced and constitutive monoterpene production in conifer needles in relation to insect herbivory. Oecologia, 1998, 114, 531-540. | 2.0 | 169 |
| 89 | The response of isoprene emission rate and photosynthetic rate to photon flux and nitrogen supply in aspen and white oak trees. Plant, Cell and Environment, 1996, 19, 549-559. | 5.7 | 102 |
| 90 | Plant growth and defense: reply to Herms and Mattson. Trends in Ecology and Evolution, 1995, 10, 39. | 8.7 | 2 |

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|---|---|---|---|
| 91 | Environmental and developmental controls over the seasonal pattern of isoprene emission from aspen leaves. Oecologia, 1994, 99, 260-270. | 2.0 | 230 |
| 92 | Plant chemical defense: monoterpenes and the growth-differentiation balance hypothesis. Trends in Ecology and Evolution, 1994, 9, 58-61. | 8.7 | 133 |
| 93 | Isoprene Emission from Velvet Bean Leaves (Interactions among Nitrogen Availability, Growth Photon) Tj ETQq1 1 0.784314 rgBT /Ov | 4.8 | 114 |
| 94 | Allometric Relationships for Predicting Aboveground Biomass, Sapwood, and Leaf Area of Two-Needle PiÃ±on Pine (Pinus edulis) Amid Open-Grown Conditions in Central New Mexico. Forest Science, 0, , . | 1.0 | 2 |