

# Ashley M Matheny

## List of Publications by Year in descending order

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Version: 2024-02-01

30  
papers

1,607  
citations

430442

18  
h-index

476904

29  
g-index

33  
all docs

33  
docs citations

33  
times ranked

3084  
citing authors



| #  | ARTICLE                                                                                                                                                                                                                                 | IF  | CITATIONS |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 1  | Vegetation demographics in Earth System Models: A review of progress and priorities. <i>Global Change Biology</i> , 2018, 24, 35-54.                                                                                                    | 4.2 | 478       |
| 2  | Contrasting strategies of hydraulic control in two codominant temperate tree species. <i>Ecohydrology</i> , 2017, 10, e1815.                                                                                                            | 1.1 | 102       |
| 3  | Tree level hydrodynamic approach for resolving aboveground water storage and stomatal conductance and modeling the effects of tree hydraulic strategy. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 1792-1813. | 1.3 | 84        |
| 4  | Quantification of uncertainties in conifer sap flow measured with the thermal dissipation method. <i>New Phytologist</i> , 2018, 219, 1283-1299.                                                                                        | 3.5 | 81        |
| 5  | Species-specific transpiration responses to intermediate disturbance in a northern hardwood forest. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 2292-2311.                                                    | 1.3 | 76        |
| 6  | Observations of stem water storage in trees of opposing hydraulic strategies. <i>Ecosphere</i> , 2015, 6, 1-13.                                                                                                                         | 1.0 | 76        |
| 7  | Detecting forest response to droughts with global observations of vegetation water content. <i>Global Change Biology</i> , 2021, 27, 6005-6024.                                                                                         | 4.2 | 73        |
| 8  | Characterizing the diurnal patterns of errors in the prediction of evapotranspiration by several land-surface models: An NACP analysis. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 1458-1473.                | 1.3 | 69        |
| 9  | The handbook for standardized field and laboratory measurements in terrestrial climate change experiments and observational studies (ClimEx). <i>Methods in Ecology and Evolution</i> , 2020, 11, 22-37.                                | 2.2 | 68        |
| 10 | Contrasting Hydraulic Strategies during Dry Soil Conditions in <i>Quercus rubra</i> and <i>Acer rubrum</i> in a Sandy Site in Michigan. <i>Forests</i> , 2013, 4, 1106-1120.                                                            | 0.9 | 65        |
| 11 | Global transpiration data from sap flow measurements: the SAPFLUXNET database. <i>Earth System Science Data</i> , 2021, 13, 2607-2649.                                                                                                  | 3.7 | 65        |
| 12 | Trait-based representation of hydrological functional properties of plants in weather and ecosystem models. <i>Plant Diversity</i> , 2017, 39, 1-12.                                                                                    | 1.8 | 56        |
| 13 | Representation of Plant Hydraulics in the Noah-MP Land Surface Model: Model Development and Multiscale Evaluation. <i>Journal of Advances in Modeling Earth Systems</i> , 2021, 13, e2020MS002214.                                      | 1.3 | 50        |
| 14 | Boreal tree hydrodynamics: asynchronous, diverging, yet complementary. <i>Tree Physiology</i> , 2018, 38, 953-964.                                                                                                                      | 1.4 | 46        |
| 15 | Aboveground tree growth is a minor and decoupled fraction of boreal forest carbon input. <i>Agricultural and Forest Meteorology</i> , 2020, 290, 108030.                                                                                | 1.9 | 33        |
| 16 | Opportunities, challenges and pitfalls in characterizing plant water-use strategies. <i>Functional Ecology</i> , 2022, 36, 24-37.                                                                                                       | 1.7 | 27        |
| 17 | Seasonal Patterns of Water Cycling in a Deep, Continental Mountain Valley Inferred From Stable Water Vapor Isotopes. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 7271-7291.                                      | 1.2 | 25        |
| 18 | A Numerical Case Study of the Implications of Secondary Circulations to the Interpretation of Eddy-Covariance Measurements Over Small Lakes. <i>Boundary-Layer Meteorology</i> , 2017, 165, 311-332.                                    | 1.2 | 24        |



| #  | ARTICLE                                                                                                                                                                                               | IF  | CITATIONS |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|
| 19 | Root lateral interactions drive water uptake patterns under water limitation. <i>Advances in Water Resources</i> , 2021, 151, 103896.                                                                 | 1.7 | 20        |
| 20 | Hydrodynamic trait coordination and costâ€“benefit tradeâ€“offs throughout the isohydricâ€“anisohtydric continuum in trees. <i>Ecohydrology</i> , 2019, 12, e2041.                                    | 1.1 | 17        |
| 21 | Stable Water Isotopes Reveal Effects of Intermediate Disturbance and Canopy Structure on Forest Water Cycling. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 2958-2975.       | 1.3 | 15        |
| 22 | Plant Hydraulic Trait Covariation: A Global Meta-Analysis to Reduce Degrees of Freedom in Trait-Based Hydrologic Models. <i>Forests</i> , 2018, 9, 446.                                               | 0.9 | 13        |
| 23 | Modeling forest carbon cycle response to tree mortality: Effects of plant functional type and disturbance intensity. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 2178-2193. | 1.3 | 9         |
| 24 | The Calibration and Use of Capacitance Sensors to Monitor Stem Water Content in Trees. <i>Journal of Visualized Experiments</i> , 2017, , .                                                           | 0.2 | 8         |
| 25 | Tree hydrodynamic modelling of the soilâ€“plantâ€“atmosphere continuum using FETCH3. <i>Geoscientific Model Development</i> , 2022, 15, 2619-2634.                                                    | 1.3 | 5         |
| 26 | An isotopic approach to partition evapotranspiration in a mixed deciduous forest. <i>Ecohydrology</i> , 2020, 13, e2229.                                                                              | 1.1 | 4         |
| 27 | Intraâ€“specific Variability in Plant Hydraulic Parameters Inferred From Model Inversion of Sap Flux Data. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2022, 127, .                    | 1.3 | 4         |
| 28 | LEAF: Logger for ecological and atmospheric factors. <i>HardwareX</i> , 2019, 6, e00079.                                                                                                              | 1.1 | 3         |
| 29 | Impacts of Vegetation on Dryland River Morphology: Insights from Springâ€“Fed Channel Reaches, Henry Mountains, Utah. <i>Water Resources Research</i> , 0, , .                                        | 1.7 | 2         |
| 30 | Stressors Reveal Ecosystems' Hidden Characteristics. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2021, 126, e2021JG006462.                                                             | 1.3 | 1         |