Andrew D Richardson

List of Publications by Citations

249 papers	28,795 citations	87 h-index	167 g-index
263 ext. papers	33,256 ext. citations	8.1 avg, IF	6.97 L-index

#	Paper	IF	Citations
249	Recent decline in the global land evapotranspiration trend due to limited moisture supply. *Nature*, **2010**, 467, 951-4	50.4	1382
248	Climate change, phenology, and phenological control of vegetation feedbacks to the climate system. *Agricultural and Forest Meteorology*, **2013**, 169, 156-173	5.8	1121
247	Global patterns of land-atmosphere fluxes of carbon dioxide, latent heat, and sensible heat derived from eddy covariance, satellite, and meteorological observations. *Journal of Geophysical Research*, **2011**, 116,		765
246	Net carbon dioxide losses of northern ecosystems in response to autumn warming. *Nature*, **2008**, 451, 49-52	50.4	759
245	CO2 balance of boreal, temperate, and tropical forests derived from a global database. *Global Change Biology*, **2007**, 13, 2509-2537	11.4	744
244	Increase in forest water-use efficiency as atmospheric carbon dioxide concentrations rise. *Nature*, **2013**, 499, 324-7	50.4	719
243	An evaluation of noninvasive methods to estimate foliar chlorophyll content. *New Phytologist*, **2002**, 153, 185-194	9.8	719
242	Intercomparison, interpretation, and assessment of spring phenology in North America estimated from remote sensing for 1982–2006. *Global Change Biology*, **2009**, 15, 2335-2359	11.4	710
241	Comprehensive comparison of gap-filling techniques for eddy covariance net carbon fluxes. *Agricultural and Forest Meteorology*, **2007**, 147, 209-232	5.8	645
240	Influence of spring and autumn phenological transitions on forest ecosystem productivity. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2010**, 365, 3227-46	5.8	594
239	Separation of net ecosystem exchange into assimilation and respiration using a light response curve approach: critical issues and global evaluation. *Global Change Biology*, **2010**, 16, 187-208	11.4	584
238	Terrestrial biosphere models need better representation of vegetation phenology: results from the North American Carbon Program Site Synthesis. *Global Change Biology*, **2012**, 18, 566-584	11.4	481
237	Evaluation of remote sensing based terrestrial productivity from MODIS using regional tower eddy flux network observations. *IEEE Transactions on Geoscience and Remote Sensing*, **2006**, 44, 1908-1925	8.1	475
236	Net carbon uptake has increased through warming-induced changes in temperate forest phenology. *Nature Climate Change*, **2014**, 4, 598-604	21.4	442
235	Uncertainty in eddy covariance measurements and its application to physiological models. *Tree Physiology*, **2005**, 25, 873-85	4.2	418
234	Use of digital webcam images to track spring green-up in a deciduous broadleaf forest. *Oecologia*, **2007**, 152, 323-34	2.9	415
233	Observed increase in local cooling effect of deforestation at higher latitudes. *Nature*, **2011**, 479, 384-7	50.4	403

232	Nonstructural carbon in woody plants. *Annual Review of Plant Biology*, **2014**, 65, 667-87	30.7	377
231	A multi-site analysis of random error in tower-based measurements of carbon and energy fluxes. *Agricultural and Forest Meteorology*, **2006**, 136, 1-18	5.8	361
230	Global convergence in the temperature sensitivity of respiration at ecosystem level. *Science*, **2010**, 329, 838-40	33.3	358
229	Digital repeat photography for phenological research in forest ecosystems. *Agricultural and Forest Meteorology*, **2012**, 152, 159-177	5.8	352
228	Tracking the rhythm of the seasons in the face of global change: phenological research in the 21st century. *Frontiers in Ecology and the Environment*, **2009**, 7, 253-260	5.5	350
227	Near-surface remote sensing of spatial and temporal variation in canopy phenology **2009**, 19, 1417-28		340
226	Phenology of a northern hardwood forest canopy. *Global Change Biology*, **2006**, 12, 1174-1188	11.4	305
225	Solar-induced chlorophyll fluorescence that correlates with canopy photosynthesis on diurnal and seasonal scales in a temperate deciduous forest. *Geophysical Research Letters*, **2015**, 42, 2977-2987	4.9	303
224	Spatial and temporal variability in forest□tmosphere CO2 exchange. *Global Change Biology*, **2004**, 10, 1689-1706	11.4	289
223	Canopy nitrogen, carbon assimilation, and albedo in temperate and boreal forests: Functional relations and potential climate feedbacks. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 19336-41	11.5	275
222	Influence of spring phenology on seasonal and annual carbon balance in two contrasting New England forests. *Tree Physiology*, **2009**, 29, 321-31	4.2	263
221	Improving land surface models with FLUXNET data. *Biogeosciences*, **2009**, 6, 1341-1359	4.6	260
220	Seasonal dynamics and age of stemwood nonstructural carbohydrates in temperate forest trees. *New Phytologist*, **2013**, 197, 850-861	9.8	247
219	A model-data comparison of gross primary productivity: Results from the North American Carbon Program site synthesis. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		239
218	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, 5880-5	11.5	232
217	Macrosystems ecology: understanding ecological patterns and processes at continental scales. *Frontiers in Ecology and the Environment*, **2014**, 12, 5-14	5.5	230
216	Intercomparison of MODIS albedo retrievals and in situ measurements across the global FLUXNET network. *Remote Sensing of Environment*, **2012**, 121, 323-334	13.2	221
215	A regional perspective on trends in continental evaporation. *Geophysical Research Letters*, **2009**, 36, n/a-n/a	4.9	221

214	Cross-site evaluation of eddy covariance GPP and RE decomposition techniques. *Agricultural and Forest Meteorology*, **2008**, 148, 821-838	5.8	221
213	Optimizing spectral indices and chemometric analysis of leaf chemical properties using radiative transfer modeling. *Remote Sensing of Environment*, **2011**, 115, 2742-2750	13.2	215
212	The MODIS (Collection V005) BRDF/albedo product: Assessment of spatial representativeness over forested landscapes. *Remote Sensing of Environment*, **2009**, 113, 2476-2498	13.2	208
211	Assimilation exceeds respiration sensitivity to drought: A FLUXNET synthesis. *Global Change Biology*, **2010**, 16, 657-670	11.4	203
210	Refining light-use efficiency calculations for a deciduous forest canopy using simultaneous tower-based carbon flux and radiometric measurements. *Agricultural and Forest Meteorology*, **2007**, 143, 64-79	5.8	202
209	Linking near-surface and satellite remote sensing measurements of deciduous broadleaf forest phenology. *Remote Sensing of Environment*, **2012**, 117, 307-321	13.2	201
208	Environmental variation is directly responsible for short- but not long-term variation in forest-atmosphere carbon exchange. *Global Change Biology*, **2007**, 13, 788-803	11.4	198
207	Terrestrial biosphere model performance for inter-annual variability of land-atmosphere CO2 exchange. *Global Change Biology*, **2012**, 18, 1971-1987	11.4	191
206	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	5.8	191
205	Evaluating remote sensing of deciduous forest phenology at multiple spatial scales using PhenoCam imagery. *Biogeosciences*, **2014**, 11, 4305-4320	4.6	189
204	Tracking vegetation phenology across diverse North American biomes using PhenoCam imagery. *Scientific Data*, **2018**, 5, 180028	8.2	187
203	Response of sugar maple to calcium addition to northern hardwood forest. *Ecology*, **2006**, 87, 1267-80	4.6	185
202	A continuous measure of gross primary production for the conterminous United States derived from MODIS and AmeriFlux data. *Remote Sensing of Environment*, **2010**, 114, 576-591	13.2	183
201	The timing of autumn senescence is affected by the timing of spring phenology: implications for predictive models. *Global Change Biology*, **2015**, 21, 2634-2641	11.4	172
200	Ecological impacts of a widespread frost event following early spring leaf-out. *Global Change Biology*, **2012**, 18, 2365-2377	11.4	168
199	Patterns and controls of the variability of radiation use efficiency and primary productivity across terrestrial ecosystems. *Global Ecology and Biogeography*, **2010**, 19, 253-267	6.1	158
198	Landscape controls on the timing of spring, autumn, and growing season length in mid-Atlantic forests. *Global Change Biology*, **2012**, 18, 656-674	11.4	156
197	Using digital repeat photography and eddy covariance data to model grassland phenology and photosynthetic CO2 uptake. *Agricultural and Forest Meteorology*, **2011**, 151, 1325-1337	5.8	154

196	Tracking forest phenology and seasonal physiology using digital repeat photography: a critical assessment **2014**, 24, 1478-89		153
195	Statistical modeling of ecosystem respiration using eddy covariance data: Maximum likelihood parameter estimation, and Monte Carlo simulation of model and parameter uncertainty, applied to three simple models. *Agricultural and Forest Meteorology*, **2005**, 131, 191-208	5.8	153
194	A distinct seasonal pattern of the ratio of soil respiration to total ecosystem respiration in a spruce-dominated forest. *Global Change Biology*, **2006**, 12, 230-239	11.4	151
193	Ecosystem warming extends vegetation activity but heightens vulnerability to cold temperatures. *Nature*, **2018**, 560, 368-371	50.4	149
192	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	5.8	145
191	Using phenocams to monitor our changing Earth: toward a global phenocam network. *Frontiers in Ecology and the Environment*, **2016**, 14, 84-93	5.5	140
190	A method to estimate the additional uncertainty in gap-filled NEE resulting from long gaps in the CO2 flux record. *Agricultural and Forest Meteorology*, **2007**, 147, 199-208	5.8	139
189	Using model-data fusion to interpret past trends, and quantify uncertainties in future projections, of terrestrial ecosystem carbon cycling. *Global Change Biology*, **2012**, 18, 2555-2569	11.4	135
188	Widespread seasonal compensation effects of spring warming on northern plant productivity. *Nature*, **2018**, 562, 110-114	50.4	134
187	Age, allocation and availability of nonstructural carbon in mature red maple trees. *New Phytologist*, **2013**, 200, 1145-55	9.8	129
186	Estimating parameters of a forest ecosystem C model with measurements of stocks and fluxes as joint constraints. *Oecologia*, **2010**, 164, 25-40	2.9	129
185	The REFLEX project: Comparing different algorithms and implementations for the inversion of a terrestrial ecosystem model against eddy covariance data. *Agricultural and Forest Meteorology*, **2009**, 149, 1597-1615	5.8	124
184	Climate and hydrological changes in the northeastern United States: recent trends and implications for forested and aquatic ecosystemsThis article is one of a selection of papers from NE Forests 2100: A Synthesis of Climate Change Impacts on Forests of the Northeastern US and Eastern Canada.. *Canadian Journal of Forest Research*, **2009**, 39, 199-212	1.9	124
183	Albedo estimates for land surface models and support for a new paradigm based on foliage nitrogen concentration. *Global Change Biology*, **2010**, 16, 696-710	11.4	123
182	Is the spherical leaf inclination angle distribution a valid assumption for temperate and boreal broadleaf tree species?. *Agricultural and Forest Meteorology*, **2013**, 169, 186-194	5.8	120
181	Measuring effective leaf area index, foliage profile, and stand height in New England forest stands using a full-waveform ground-based lidar. *Remote Sensing of Environment*, **2011**, 115, 2954-2964	13.2	118
180	Statistical properties of random CO2 flux measurement uncertainty inferred from model residuals. *Agricultural and Forest Meteorology*, **2008**, 148, 38-50	5.8	117
179	On the uncertainty of phenological responses to climate change, and implications for a terrestrial biosphere model. *Biogeosciences*, **2012**, 9, 2063-2083	4.6	115

178	Biosphere-atmosphere exchange of CO₂ in relation to climate: a cross-biome analysis across multiple time scales. *Biogeosciences*, **2009**, 6, 2297-2312	4.6	115
177	A Dynamic Landsat Derived Normalized Difference Vegetation Index (NDVI) Product for the Conterminous United States. *Remote Sensing*, **2017**, 9, 863	5	110
176	Comparing simple respiration models for eddy flux and dynamic chamber data. *Agricultural and Forest Meteorology*, **2006**, 141, 219-234	5.8	110
175	Assessing foliar chlorophyll contents with the SPAD-502 chlorophyll meter: a calibration test with thirteen tree species of tropical rainforest in French Guiana. *Annals of Forest Science*, **2010**, 67, 607-607	3.1	106
174	Assessing parameter variability in a photosynthesis model within and between plant functional types using global Fluxnet eddy covariance data. *Agricultural and Forest Meteorology*, **2011**, 151, 22-38	5.8	105
173	Semiempirical modeling of abiotic and biotic factors controlling ecosystem respiration across eddy covariance sites. *Global Change Biology*, **2011**, 17, 390-409	11.4	102
172	Greenness indices from digital cameras predict the timing and seasonal dynamics of canopy-scale photosynthesis **2015**, 25, 99-115		100
171	Predicting climate change impacts on the amount and duration of autumn colors in a New England forest. *PLoS ONE*, **2013**, 8, e57373	3.7	100
170	Productivity of North American grasslands is increased under future climate scenarios despite rising aridity. *Nature Climate Change*, **2016**, 6, 710-714	21.4	99
169	ECOSTRESS: NASA's Next Generation Mission to Measure Evapotranspiration From the International Space Station. *Water Resources Research*, **2020**, 56, e2019WR026058	5.4	98
168	Using data from Landsat, MODIS, VIIRS and PhenoCams to monitor the phenology of California oak/grass savanna and open grassland across spatial scales. *Agricultural and Forest Meteorology*, **2017**, 237-238, 311-325	5.8	96
167	Phenopix: A R package for image-based vegetation phenology. *Agricultural and Forest Meteorology*, **2016**, 220, 141-150	5.8	93
166	Phenology model from surface meteorology does not capture satellite-based greenup estimations. *Global Change Biology*, **2007**, 13, 707-721	11.4	93
165	Disentangling the role of photosynthesis and stomatal conductance on rising forest water-use efficiency. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 16909-16914	11.5	91
164	The model-data fusion pitfall: assuming certainty in an uncertain world. *Oecologia*, **2011**, 167, 587-97	2.9	91
163	Multisite analysis of land surface phenology in North American temperate and boreal deciduous forests from Landsat. *Remote Sensing of Environment*, **2016**, 186, 452-464	13.2	88
162	Evaluation of land surface phenology from VIIRS data using time series of PhenoCam imagery. *Agricultural and Forest Meteorology*, **2018**, 256-257, 137-149	5.8	85
161	Latitudinal patterns of magnitude and interannual variability in net ecosystem exchange regulated by biological and environmental variables. *Global Change Biology*, **2009**, 15, 2905-2920	11.4	84

160	A conceptual and practical approach to data quality and analysis procedures for high-frequency soil respiration measurements. *Functional Ecology*, **2008**, 22, 1000-1007	5.6	83
159	Spectral reflectance and photosynthetic properties of Betula papyrifera (Betulaceae) leaves along an elevational gradient on Mt. Mansfield, Vermont, USA. *American Journal of Botany*, **2002**, 89, 88-94	2.7	83
158	Standardized protocols and procedures can precisely and accurately quantify non-structural carbohydrates. *Tree Physiology*, **2018**, 38, 1764-1778	4.2	82
157	Steeper declines in forest photosynthesis than respiration explain age-driven decreases in forest growth. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 8856-60	11.5	79
156	Using FLUXNET data to improve models of springtime vegetation activity onset in forest ecosystems. *Agricultural and Forest Meteorology*, **2013**, 171-172, 46-56	5.8	79
155	Distribution and mixing of old and new nonstructural carbon in two temperate trees. *New Phytologist*, **2015**, 206, 590-7	9.8	78
154	FLUXNET-CH4 Synthesis Activity: Objectives, Observations, and Future Directions. *Bulletin of the American Meteorological Society*, **2019**, 100, 2607-2632	6.1	77
153	OptIC project: An intercomparison of optimization techniques for parameter estimation in terrestrial biogeochemical models. *Journal of Geophysical Research*, **2007**, 112,		74
152	Statistical uncertainty of eddy flux-based estimates of gross ecosystem carbon exchange at Howland Forest, Maine. *Journal of Geophysical Research*, **2006**, 111,		74
151	An integrated phenology modelling framework in r. *Methods in Ecology and Evolution*, **2018**, 9, 1276-1285	7.7	73
150	Data-driven diagnostics of terrestrial carbon dynamics over North America. *Agricultural and Forest Meteorology*, **2014**, 197, 142-157	5.8	73
149	Changes in foliar spectral reflectance and chlorophyll fluorescence of four temperate species following branch cutting. *Tree Physiology*, **2002**, 22, 499-506	4.2	73
148	Whole-tree nonstructural carbohydrate storage and seasonal dynamics in five temperate species. *New Phytologist*, **2019**, 221, 1466-1477	9.8	73
147	Intercomparison of phenological transition dates derived from the PhenoCam Dataset V1.0 and MODIS satellite remote sensing. *Scientific Reports*, **2018**, 8, 5679	4.9	71
146	Fine-scale perspectives on landscape phenology from unmanned aerial vehicle (UAV) photography. *Agricultural and Forest Meteorology*, **2018**, 248, 397-407	5.8	70
145	Constraining a global ecosystem model with multi-site eddy-covariance data. *Biogeosciences*, **2012**, 9, 3757-3776	4.6	70
144	Phenological Differences Between Understory and Overstory **2009**, 87-117		69
143	Estimating Uncertainty in Ecosystem Budget Calculations. *Ecosystems*, **2010**, 13, 239-248	3.9	69

142	Three scales of temporal resolution from automated soil respiration measurements. *Agricultural and Forest Meteorology*, **2009**, 149, 2012-2021	5.8	68
141	Multiscale modeling of spring phenology across Deciduous Forests in the Eastern United States. *Global Change Biology*, **2016**, 22, 792-805	11.4	68
140	Attaining whole-ecosystem warming using air and deep-soil heating methods with an elevated CO₂ atmosphere. *Biogeosciences*, **2017**, 14, 861-883	4.6	67
139	A tale of two springs: using recent climate anomalies to characterize the sensitivity of temperate forest phenology to climate change. *Environmental Research Letters*, **2014**, 9, 054006	6.2	67
138	Characterizing the performance of ecosystem models across time scales: A spectral analysis of the North American Carbon Program site-level synthesis. *Journal of Geophysical Research*, **2011**, 116,		66
137	Evaluation of continental carbon cycle simulations with North American flux tower observations. *Ecological Monographs*, **2013**, 83, 531-556	9	63
136	Rate my data: quantifying the value of ecological data for the development of models of the terrestrial carbon cycle **2013**, 23, 273-86		63
135	Characterization of seasonal variation of forest canopy in a temperate deciduous broadleaf forest, using daily MODIS data. *Remote Sensing of Environment*, **2006**, 105, 189-203	13.2	60
134	Uncertainty Quantification **2012**, 173-209		59
133	Continuous, long-term, high-frequency thermal imaging of vegetation: Uncertainties and recommended best practices. *Agricultural and Forest Meteorology*, **2016**, 228-229, 315-326	5.8	59
132	Microclimatology of treeline spruce?fir forests in mountains of the northeastern United States. *Agricultural and Forest Meteorology*, **2004**, 125, 53-66	5.8	58
131	Multivariate analyses of visible/near infrared (VIS/NIR) absorbance spectra reveal underlying spectral differences among dried, ground conifer needle samples from different growth environments. *New Phytologist*, **2004**, 161, 291-301	9.8	56
130	Phenology from Landsat when data is scarce: Using MODIS and Dynamic Time-Warping to combine multi-year Landsat imagery to derive annual phenology curves. *International Journal of Applied Earth Observation and Geoinformation*, **2017**, 54, 72-83	7.3	55
129	Monitoring vegetation phenology using an infrared-enabled security camera. *Agricultural and Forest Meteorology*, **2014**, 195-196, 143-151	5.8	51
128	Linking big models to big data: efficient ecosystem model calibration through Bayesian model emulation. *Biogeosciences*, **2018**, 15, 5801-5830	4.6	51
127	Reflectance of Alaskan black spruce and white spruce foliage in relation to elevation and latitude. *Tree Physiology*, **2003**, 23, 537-44	4.2	50
126	Spectral reflectance of Picea rubens (Pinaceae) and Abies balsamea (Pinaceae) needles along an elevational gradient, Mt. Moosilauke, New Hampshire, USA. *American Journal of Botany*, **2001**, 88, 667-676	2.7	50
125	Remote sensing of annual terrestrial gross primary productivity from MODIS: an assessment using the FLUXNET La Thuile data set. *Biogeosciences*, **2014**, 11, 2185-2200	4.6	49

124	Approaches to advance scientific understanding of macrosystems ecology. *Frontiers in Ecology and the Environment*, **2014**, 12, 15-23	5.5	47
123	Urban warming advances spring phenology but reduces the response of phenology to temperature in the conterminous United States. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 4228-4233	11.5	46
122	Foliar chemistry of balsam fir and red spruce in relation to elevation and the canopy light gradient in the mountains of the northeastern United States. *Plant and Soil*, **2004**, 260, 291-299	4.2	46
121	Limitations to winter and spring photosynthesis of a Rocky Mountain subalpine forest. *Agricultural and Forest Meteorology*, **2018**, 252, 241-255	5.8	45
120	Spectral reflectance of Thalassia testudinum (Hydrocharitaceae) seagrass: low salinity effects. *American Journal of Botany*, **2006**, 93, 110-117	2.7	44
119	NDVI derived from near-infrared-enabled digital cameras: Applicability across different plant functional types. *Agricultural and Forest Meteorology*, **2018**, 249, 275-285	5.8	44
118	Phenocams Bridge the Gap between Field and Satellite Observations in an Arid Grassland Ecosystem. *Remote Sensing*, **2017**, 9, 1071	5	43
117	A new seasonal-deciduous spring phenology submodel in the Community Land Model 4.5: impacts on carbon and water cycling under future climate scenarios. *Global Change Biology*, **2016**, 22, 3675-3688	11.4	43
116	Using Near-Infrared-Enabled Digital Repeat Photography to Track Structural and Physiological Phenology in Mediterranean Tree□Grass Ecosystems. *Remote Sensing*, **2018**, 10, 1293	5	43
115	Evidence for a Rising Cloud Ceiling in Eastern North America*. *Journal of Climate*, **2003**, 16, 2093-2098	4.4	43
114	Representativeness of Eddy-Covariance flux footprints for areas surrounding AmeriFlux sites. *Agricultural and Forest Meteorology*, **2021**, 301-302, 108350	5.8	43
113	Impact of hydrological variations on modeling of peatland CO2 fluxes: Results from the North American Carbon Program site synthesis. *Journal of Geophysical Research*, **2012**, 117,		42
112	The global network of outdoor webcams **2009**,		42
111	Influence of physiological phenology on the seasonal pattern of ecosystem respiration in deciduous forests. *Global Change Biology*, **2015**, 21, 363-76	11.4	41
110	Linking annual tree growth with eddy-flux measures of net ecosystem productivity across twenty years of observation in a mixed conifer forest. *Agricultural and Forest Meteorology*, **2018**, 249, 479-487	5.8	41
109	Canopy-scale relationships between foliar nitrogen and albedo are not observed in leaf reflectance and transmittance within temperate deciduous tree species. *Botany*, **2011**, 89, 491-497	1.3	40
108	Season Spotter: Using Citizen Science to Validate and Scale Plant Phenology from Near-Surface Remote Sensing. *Remote Sensing*, **2016**, 8, 726	5	39
107	Tracking vegetation phenology across diverse biomes using Version 2.0 of the PhenoCam Dataset. *Scientific Data*, **2019**, 6, 222	8.2	38

106	Climate change at the ecosystem scale: a 50-year record in New Hampshire. *Climatic Change*, **2013**, 116, 457-477	4.5	38
105	Observing Spring and Fall Phenology in a Deciduous Forest with Aerial Drone Imagery. *Sensors*, **2017**, 17,	3.8	38
104	Leaf area index uncertainty estimates for model–data fusion applications. *Agricultural and Forest Meteorology*, **2011**, 151, 1287-1292	5.8	38
103	Tracking seasonal rhythms of plants in diverse ecosystems with digital camera imagery. *New Phytologist*, **2019**, 222, 1742-1750	9.8	38
102	Daily MODIS 500 m reflectance anisotropy direct broadcast (DB) products for monitoring vegetation phenology dynamics. *International Journal of Remote Sensing*, **2013**, 34, 5997-6016	3.1	37
101	Forest ecosystem changes from annual methane source to sink depending on late summer water balance. *Geophysical Research Letters*, **2014**, 41, 673-679	4.9	36
100	Stomatal Length Correlates with Elevation of Growth in Four Temperate Species *Journal of Sustainable Forestry*, **2009**, 28, 63-73	1.2	36
99	Within-crown Foliar Plasticity of Western Hemlock, Tsuga heterophylla, in Relation to Stand Age. *Annals of Botany*, **2001**, 88, 1007-1015	4.1	36
98	Thermal imaging in plant and ecosystem ecology: applications and challenges. *Ecosphere*, **2019**, 10, e02768	3.1	35
97	On the need to consider wood formation processes in global vegetation models and a suggested approach. *Annals of Forest Science*, **2019**, 76, 1	3.1	34
96	Interannual variation of carbon fluxes from three contrasting evergreen forests: the role of forest dynamics and climate. *Ecology*, **2009**, 90, 2711-23	4.6	33
95	Spectral reflectance of the seagrasses: Thalassia testudinum, Halodule wrightii, Syringodium filiforme and five marine algae. *International Journal of Remote Sensing*, **2007**, 28, 1487-1501	3.1	33
94	Quantitative reflectance spectroscopy as an alternative to traditional wet lab analysis of foliar chemistry: near-infrared and mid-infrared calibrations compared. *Canadian Journal of Forest Research*, **2005**, 35, 1122-1130	1.9	33
93	Seasonal variation of photosynthetic model parameters and leaf area index from global Fluxnet eddy covariance data. *Journal of Geophysical Research*, **2011**, 116,		32
92	On the relationship between continuous measures of canopy greenness derived using near-surface remote sensing and satellite-derived vegetation products. *Agricultural and Forest Meteorology*, **2017**, 247, 280-292	5.8	30
91	Endogenous circadian regulation of carbon dioxide exchange in terrestrial ecosystems. *Global Change Biology*, **2012**, 18, 1956-1970	11.4	30
90	A Review of the Theories to Explain Arctic and Alpine Treelines Around the World. *Journal of Sustainable Forestry*, **2009**, 28, 218-242	1.2	28
89	Plant carbon allocation in a changing world - challenges and progress: introduction to a Virtual Issue on carbon allocation: Introduction to a virtual issue on carbon allocation. *New Phytologist*, **2020**, 227, 981-988	9.8	28

88	Merging a mechanistic enzymatic model of soil heterotrophic respiration into an ecosystem model in two AmeriFlux sites of northeastern USA. *Agricultural and Forest Meteorology*, **2018**, 252, 155-166	5.8	27
87	Estimation of plant area index and phenological transition dates from digital repeat photography and radiometric approaches in a hardwood forest in the Northeastern United States. *Agricultural and Forest Meteorology*, **2018**, 249, 457-466	5.8	27
86	On quantifying the apparent temperature sensitivity of plant phenology. *New Phytologist*, **2020**, 225, 1033-1040	9.8	27
85	Global Climate. *Bulletin of the American Meteorological Society*, **2020**, 101, S9-S128	6.1	26
84	Carbon budget of the Harvard Forest Long-Term Ecological Research site: pattern, process, and response to global change. *Ecological Monographs*, **2020**, 90, e01423	9	26
83	Evaluating the agreement between measurements and models of net ecosystem exchange at different times and timescales using wavelet coherence: an example using data from the North American Carbon Program Site-Level Interim Synthesis. *Biogeosciences*, **2013**, 10, 6893-6909	4.6	25
82	Testing Hopkins' Bioclimatic Law with PhenoCam data. *Applications in Plant Sciences*, **2019**, 7, e01228	2.3	24
81	Nitrogen cycling, forest canopy reflectance, and emergent properties of ecosystems. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, E2437	11.5	24
80	Comment on Vickers et al.: Self-correlation between assimilation and respiration resulting from flux partitioning of eddy-covariance CO2 fluxes. *Agricultural and Forest Meteorology*, **2010**, 150, 312-314	5.8	24
79	Predicting root biomass from branching patterns of Douglas-fir root systems. *Oikos*, **2003**, 100, 96-104	4	24
78	Constrained partitioning of autotrophic and heterotrophic respiration reduces model uncertainties of forest ecosystem carbon fluxes but not stocks. *Journal of Geophysical Research G: Biogeosciences*, **2016**, 121, 2476-2492	3.7	23
77	FLUXNET-CH₄: a global, multi-ecosystem dataset and analysis of methane seasonality from freshwater wetlands. *Earth System Science Data*, **2021**, 13, 3607-3689	10.5	23
76	Model-based analysis of the impact of diffuse radiation on CO2 exchange in a temperate deciduous forest. *Agricultural and Forest Meteorology*, **2018**, 249, 377-389	5.8	23
75	Carbon fluxes and interannual drivers in a temperate forest ecosystem assessed through comparison of top-down and bottom-up approaches. *Agricultural and Forest Meteorology*, **2018**, 256-257, 420-430	5.8	22
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