

# Asko Noormets

## List of Publications by Year in descending order

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118  
papers

9,101  
citations

53794

45  
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43889

91  
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134  
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134  
docs citations

134  
times ranked

8892  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comprehensive comparison of gap-filling techniques for eddy covariance net carbon fluxes. <i>Agricultural and Forest Meteorology</i> , 2007, 147, 209-232.	4.8	744
2	The increasing importance of atmospheric demand for ecosystem water and carbon fluxes. <i>Nature Climate Change</i> , 2016, 6, 1023-1027.	18.8	734
3	The FLUXNET2015 dataset and the ONEFlux processing pipeline for eddy covariance data. <i>Scientific Data</i> , 2020, 7, 225.	5.3	646
4	Ecosystem carbon dioxide fluxes after disturbance in forests of North America. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	395
5	Tropospheric O <sub>3</sub> moderates responses of temperate hardwood forests to elevated CO <sub>2</sub> : a synthesis of molecular to ecosystem results from the Aspen FACE project. <i>Functional Ecology</i> , 2003, 17, 289-304.	3.6	269
6	Cross-site evaluation of eddy covariance GPP and RE decomposition techniques. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 821-838.	4.8	248
7	A remotely sensed pigment index reveals photosynthetic phenology in evergreen conifers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 13087-13092.	7.1	242
8	Estimation of net ecosystem carbon exchange for the conterminous United States by combining MODIS and AmeriFlux data. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 1827-1847.	4.8	221
9	A continuous measure of gross primary production for the conterminous United States derived from MODIS and AmeriFlux data. <i>Remote Sensing of Environment</i> , 2010, 114, 576-591.	11.0	210
10	A general predictive model for estimating monthly ecosystem evapotranspiration. <i>Ecohydrology</i> , 2011, 4, 245-255.	2.4	195
11	Upscaling key ecosystem functions across the conterminous United States by a water-centric ecosystem model. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	159
12	Energy and water balance of two contrasting loblolly pine plantations on the lower coastal plain of North Carolina, USA. <i>Forest Ecology and Management</i> , 2010, 259, 1299-1310.	3.2	157
13	Assessing net ecosystem carbon exchange of U.S. terrestrial ecosystems by integrating eddy covariance flux measurements and satellite observations. <i>Agricultural and Forest Meteorology</i> , 2011, 151, 60-69.	4.8	157
14	Stomatal and non-stomatal limitation to photosynthesis in two trembling aspen ( <i>Populus tremuloides</i> ) Tj ETQq0 0 0 rgBT /Overlock 10 T	3.7	154
15	Effects of forest management on productivity and carbon sequestration: A review and hypothesis. <i>Forest Ecology and Management</i> , 2015, 355, 124-140.	3.2	145
16	Hydraulic redistribution of soil water by roots affects whole-stand evapotranspiration and net ecosystem carbon exchange. <i>New Phytologist</i> , 2010, 187, 171-183.	7.3	137
17	Climate control of terrestrial carbon exchange across biomes and continents. <i>Environmental Research Letters</i> , 2010, 5, 034007.	5.2	137
18	Decoupling the influence of leaf and root hydraulic conductances on stomatal conductance and its sensitivity to vapour pressure deficit as soil dries in a drained loblolly pine plantation. <i>Plant, Cell and Environment</i> , 2009, 32, 980-991.	5.7	133

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19	Response of carbon fluxes to drought in a coastal plain loblolly pine forest. <i>Global Change Biology</i> , 2010, 16, 272-287.	9.5	130
20	Representativeness of Eddy-Covariance flux footprints for areas surrounding AmeriFlux sites. <i>Agricultural and Forest Meteorology</i> , 2021, 301-302, 108350.	4.8	125
21	Drought during canopy development has lasting effect on annual carbon balance in a deciduous temperate forest. <i>New Phytologist</i> , 2008, 179, 818-828.	7.3	121
22	Thermal optimality of net ecosystem exchange of carbon dioxide and underlying mechanisms. <i>New Phytologist</i> , 2012, 194, 775-783.	7.3	111
23	Age-Dependent Changes in Ecosystem Carbon Fluxes in Managed Forests in Northern Wisconsin, USA. <i>Ecosystems</i> , 2007, 10, 187-203.	3.4	110
24	Title is missing!. <i>Water, Air, and Soil Pollution</i> , 1999, 116, 311-322.	2.4	106
25	Influence of vegetation and seasonal forcing on carbon dioxide fluxes across the Upper Midwest, USA: Implications for regional scaling. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 288-308.	4.8	106
26	Interacting elevated CO <sub>2</sub> and tropospheric O <sub>3</sub> predisposes aspen ( <i>Populus tremuloides</i> Michx.) to infection by rust ( <i>Melampsora medusae</i> f. sp. <i>tremuloidae</i> ). <i>Global Change Biology</i> , 2002, 8, 329-338.	9.5	96
27	Effects of elevated CO <sub>2</sub> and O <sub>3</sub> on aspen clones varying in O <sub>3</sub> sensitivity: can CO <sub>2</sub> ameliorate the harmful effects of O <sub>3</sub> ? <i>Environmental Pollution</i> , 2001, 115, 473-481.	7.5	92
28	Estimating nocturnal ecosystem respiration from the vertical turbulent flux and change in storage of CO <sub>2</sub> . <i>Agricultural and Forest Meteorology</i> , 2009, 149, 1919-1930.	4.8	91
29	Tidal effects on net ecosystem exchange of carbon in an estuarine wetland. <i>Agricultural and Forest Meteorology</i> , 2009, 149, 1820-1828.	4.8	88
30	Phenophases alter the soil respiration-temperature relationship in an oak-dominated forest. <i>International Journal of Biometeorology</i> , 2006, 51, 135-144.	3.0	85
31	Development of a coupled carbon and water model for estimating global gross primary productivity and evapotranspiration based on eddy flux and remote sensing data. <i>Agricultural and Forest Meteorology</i> , 2016, 223, 116-131.	4.8	85
32	Response of ecosystem carbon fluxes to drought events in a poplar plantation in Northern China. <i>Forest Ecology and Management</i> , 2013, 300, 33-42.	3.2	84
33	Interannual, seasonal, and retrospective analysis of the methane and carbon dioxide budgets of a temperate peatland. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 226-238.	3.0	82
34	Predicting plant diversity based on remote sensing products in the semi-arid region of Inner Mongolia. <i>Remote Sensing of Environment</i> , 2008, 112, 2018-2032.	11.0	80
35	Daily Landsat-scale evapotranspiration estimation over a forested landscape in North Carolina, USA, using multi-satellite data fusion. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 1017-1037.	4.9	77
36	A Comparison of Three Methods to Estimate Evapotranspiration in Two Contrasting Loblolly Pine Plantations: Age-Related Changes in Water Use and Drought Sensitivity of Evapotranspiration Components. <i>Forest Science</i> , 2012, 58, 497-512.	1.0	68

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37	Quantifying the effect of forest age in annual net forest carbon balance. <i>Environmental Research Letters</i> , 2018, 13, 124018.	5.2	67
38	The effect of elevated carbon dioxide and ozone on leaf- and branch-level photosynthesis and potential plant-level carbon gain in aspen. <i>Trees - Structure and Function</i> , 2001, 15, 262-270.	1.9	66
39	Interactive effects of nocturnal transpiration and climate change on the root hydraulic redistribution and carbon and water budgets of southern United States pine plantations. <i>Tree Physiology</i> , 2012, 32, 707-723.	3.1	66
40	Poplar plantation has the potential to alter the water balance in semiarid Inner Mongolia. <i>Journal of Environmental Management</i> , 2009, 90, 2762-2770.	7.8	64
41	Evapotranspiration estimates from eddy covariance towers and hydrologic modeling in managed forests in Northern Wisconsin, USA. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 257-267.	4.8	58
42	Conversion of natural forests to managed forest plantations decreases tree resistance to prolonged droughts. <i>Forest Ecology and Management</i> , 2015, 355, 58-71.	3.2	55
43	Fertilization intensifies drought stress: Water use and stomatal conductance of <i>Pinus taeda</i> in a midrotation fertilization and throughfall reduction experiment. <i>Forest Ecology and Management</i> , 2015, 355, 72-82.	3.2	53
44	The role of harvest residue in rotation cycle carbon balance in loblolly pine plantations. Respiration partitioning approach. <i>Global Change Biology</i> , 2012, 18, 3186-3201.	9.5	52
45	Phenology of Ecosystem Processes. , 2009, , .		50
46	COSORE: A community database for continuous soil respiration and other soil-atmosphere greenhouse gas flux data. <i>Global Change Biology</i> , 2020, 26, 7268-7283.	9.5	50
47	The effect of water table fluctuation on soil respiration in a lower coastal plain forested wetland in the southeastern U.S.. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 1748-1762.	3.0	48
48	Hydrology and microtopography control carbon dynamics in wetlands: Implications in partitioning ecosystem respiration in a coastal plain forested wetland. <i>Agricultural and Forest Meteorology</i> , 2017, 247, 343-355.	4.8	48
49	Moisture sensitivity of ecosystem respiration: Comparison of 14 forest ecosystems in the Upper Great Lakes Region, USA. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 216-230.	4.8	47
50	Understanding moisture stress on light use efficiency across terrestrial ecosystems based on global flux and remote-sensing data. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2015, 120, 2053-2066.	3.0	45
51	Long-term variability and environmental control of the carbon cycle in an oak-dominated temperate forest. <i>Forest Ecology and Management</i> , 2014, 313, 319-328.	3.2	43
52	Investigating impacts of drought and disturbance on evapotranspiration over a forested landscape in North Carolina, USA using high spatiotemporal resolution remotely sensed data. <i>Remote Sensing of Environment</i> , 2020, 238, 111018.	11.0	41
53	Environmental controls on seasonal ecosystem evapotranspiration/potential evapotranspiration ratio as determined by the global eddy flux measurements. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 311-322.	4.9	40
54	Soil-plant-atmosphere conditions regulating convective cloud formation above southeastern US pine plantations. <i>Global Change Biology</i> , 2016, 22, 2238-2254.	9.5	39

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55	Understanding coastal wetland hydrology with a new regional-scale, process-based hydrological model. <i>Hydrological Processes</i> , 2018, 32, 3158-3173.	2.6	38
56	Leveraging 35 years of <i>Pinus taeda</i> research in the southeastern US to constrain forest carbon cycle predictions: regional data assimilation using ecosystem experiments. <i>Biogeosciences</i> , 2017, 14, 3525-3547.	3.3	36
57	Tidal Wetland Gross Primary Production Across the Continental United States, 2000–2019. <i>Global Biogeochemical Cycles</i> , 2020, 34, e2019GB006349.	4.9	36
58	Carbon accumulation in loblolly pine plantations is increased by fertilization across a soil moisture availability gradient. <i>Forest Ecology and Management</i> , 2018, 424, 39-52.	3.2	34
59	Drought and thinning have limited impacts on evapotranspiration in a managed pine plantation on the southeastern United States coastal plain. <i>Agricultural and Forest Meteorology</i> , 2018, 262, 14-23.	4.8	34
60	Substantial hysteresis in emergent temperature sensitivity of global wetland CH <sub>4</sub> emissions. <i>Nature Communications</i> , 2021, 12, 2266.	12.8	34
61	Regional validation and improved parameterization of the 3-PG model for <i>Pinus taeda</i> stands. <i>Forest Ecology and Management</i> , 2016, 361, 237-256.	3.2	33
62	Gap-filling eddy covariance methane fluxes: Comparison of machine learning model predictions and uncertainties at FLUXNET-CH <sub>4</sub> wetlands. <i>Agricultural and Forest Meteorology</i> , 2021, 308-309, 108528.	4.8	33
63	Seasonal changes in leaf nitrogen pools in two <i>Salix</i> species. <i>Tree Physiology</i> , 1998, 18, 45-51.	3.1	32
64	A Range-Wide Experiment to Investigate Nutrient and Soil Moisture Interactions in Loblolly Pine Plantations. <i>Forests</i> , 2015, 6, 2014-2028.	2.1	31
65	Evaluating atmospheric CO <sub>2</sub> effects on gross primary productivity and net ecosystem exchanges of terrestrial ecosystems in the conterminous United States using the AmeriFlux data and an artificial neural network approach. <i>Agricultural and Forest Meteorology</i> , 2016, 220, 38-49.	4.8	31
66	Variability of sun-induced chlorophyll fluorescence according to stand age-related processes in a managed loblolly pine forest. <i>Global Change Biology</i> , 2018, 24, 2980-2996.	9.5	29
67	Monthly land cover-specific evapotranspiration models derived from global eddy flux measurements and remote sensing data. <i>Ecohydrology</i> , 2016, 9, 248-266.	2.4	28
68	Elevated CO <sub>2</sub> response of photosynthesis depends on ozone concentration in aspen. <i>Environmental Pollution</i> , 2010, 158, 992-999.	7.5	27
69	The 2013 FLEX <sup>US</sup> Airborne Campaign at the Parker Tract Loblolly Pine Plantation in North Carolina, USA. <i>Remote Sensing</i> , 2017, 9, 612.	4.0	27
70	Modelling gross primary production in semi-arid Inner Mongolia using MODIS imagery and eddy covariance data. <i>International Journal of Remote Sensing</i> , 2013, 34, 2829-2857.	2.9	26
71	Energy partitioning and surface resistance of a poplar plantation in northern China. <i>Biogeosciences</i> , 2015, 12, 4245-4259.	3.3	25
72	Assessment and simulation of global terrestrial latent heat flux by synthesis of CMIP5 climate models and surface eddy covariance observations. <i>Agricultural and Forest Meteorology</i> , 2016, 223, 151-167.	4.8	25

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73	Disentangling the Effects of Temperature, Moisture, and Substrate Availability on Soil CO <sub>2</sub> Efflux. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2019, 124, 2060-2075.	3.0	25
74	Long-term carbon flux and balance in managed and natural coastal forested wetlands of the Southeastern USA. <i>Agricultural and Forest Meteorology</i> , 2020, 288-289, 108022.	4.8	24
75	Effects of land-use change and drought on decadal evapotranspiration and water balance of natural and managed forested wetlands along the southeastern US lower coastal plain. <i>Agricultural and Forest Meteorology</i> , 2021, 303, 108381.	4.8	24
76	Performance of Linear and Nonlinear Two-Leaf Light Use Efficiency Models at Different Temporal Scales. <i>Remote Sensing</i> , 2015, 7, 2238-2278.	4.0	23
77	Modeling the potential impacts of climate change on the water table level of selected forested wetlands in the southeastern United States. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 6289-6305.	4.9	23
78	Spectral evidence for substrate availability rather than environmental control of methane emissions from a coastal forested wetland. <i>Agricultural and Forest Meteorology</i> , 2020, 291, 108062.	4.8	23
79	Analysis of a Farquhar-von Caemmerer-Berry leaf-level photosynthetic rate model for <i>Populus tremuloides</i> in the context of modeling and measurement limitations. <i>Environmental Pollution</i> , 2010, 158, 1015-1022.	7.5	21
80	Comparisons between PnET-Day and eddy covariance based gross ecosystem production in two Northern Wisconsin forests. <i>Agricultural and Forest Meteorology</i> , 2008, 148, 247-256.	4.8	20
81	Microtopography Alters Hydrology, Phenol Oxidase Activity and Nutrient Availability in Organic Soils of a Coastal Freshwater Forested Wetland. <i>Wetlands</i> , 2019, 39, 263-273.	1.5	20
82	Spatial heterogeneity in CO <sub>2</sub> , CH <sub>4</sub> , and energy fluxes: insights from airborne eddy covariance measurements over the Mid-Atlantic region. <i>Environmental Research Letters</i> , 2020, 15, 035008.	5.2	19
83	Quantifying the effects of harvesting on carbon fluxes and stocks in northern temperate forests. <i>Biogeosciences</i> , 2014, 11, 6667-6682.	3.3	18
84	Productivity, Biomass Partitioning, and Energy Yield of Low-Input Short-Rotation American Sycamore ( <i>Platanus occidentalis</i> L.) Grown on Marginal Land: Effects of Planting Density and Simulated Drought. <i>Bioenergy Research</i> , 2017, 10, 903-914.	3.9	18
85	Wetland microtopography alters response of potential net CO <sub>2</sub> and CH <sub>4</sub> production to temperature and moisture: Evidence from a laboratory experiment. <i>Geoderma</i> , 2021, 402, 115367.	5.1	18
86	A Working Framework for Quantifying Carbon Sequestration in Disturbed Land Mosaics. <i>Environmental Management</i> , 2004, 33, S210.	2.7	17
87	Long-term variability in the water budget and its controls in an oak-dominated temperate forest. <i>Hydrological Processes</i> , 2014, 28, 6054-6066.	2.6	17
88	Divergent apparent temperature sensitivity of terrestrial ecosystem respiration. <i>Journal of Plant Ecology</i> , 2014, 7, 419-428.	2.3	16
89	Water-use efficiency of a poplar plantation in Northern China. <i>Journal of Forest Research</i> , 2014, 19, 483-492.	1.4	16
90	Aquaporins, and not changes in root structure, provide new insights into physiological responses to drought, flooding, and salinity. <i>Journal of Experimental Botany</i> , 2021, 72, 4489-4501.	4.8	16

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91	Water Table Drawdown Alters Soil and Microbial Carbon Pool Size and Isotope Composition in Coastal Freshwater Forested Wetlands. <i>Frontiers in Forests and Global Change</i> , 2019, 2, .	2.3	15
92	Effects of Microtopography on Absorptive and Transport Fine Root Biomass, Necromass, Production, Mortality and Decomposition in a Coastal Freshwater Forested Wetland, Southeastern USA. <i>Ecosystems</i> , 2020, 23, 1294-1308.	3.4	15
93	Ecosystem Productivity and Evapotranspiration Are Tightly Coupled in Loblolly Pine ( <i>Pinus taeda</i> L.) Plantations along the Coastal Plain of the Southeastern U.S.. <i>Forests</i> , 2021, 12, 1123.	2.1	15
94	The Effects of Infrared Loading and Water Table on Soil Energy Fluxes in Northern Peatlands. <i>Ecosystems</i> , 2004, 7, 573.	3.4	14
95	The Phenology of Gross Ecosystem Productivity and Ecosystem Respiration in Temperate Hardwood and Conifer Chronosequences. , 2009, , 59-85.		14
96	Assessing the interplay between canopy energy balance and photosynthesis with cellulose $\delta^{18}O$ : large-scale patterns and independent ground-truthing. <i>Oecologia</i> , 2018, 187, 995-1007.	2.0	13
97	Saltwater reduces potential $CO_2$ and $CH_4$ production in peat soils from a coastal freshwater forested wetland. <i>Biogeosciences</i> , 2019, 16, 4671-4686.	3.3	13
98	Temperature Responses to Infrared Loading and Water Table Manipulations in Peatland Mesocosms. <i>Journal of Integrative Plant Biology</i> , 2008, 50, 1484-1496.	8.5	12
99	Testing DRAINMOD-Forest for predicting evapotranspiration in a mid-rotation pine plantation. <i>Forest Ecology and Management</i> , 2015, 355, 37-47.	3.2	12
100	TRACC: an open source software for processing sap flux data from thermal dissipation probes. <i>Trees - Structure and Function</i> , 2017, 31, 1737-1742.	1.9	12
101	Stability of soil organic carbon during forest conversion is more sensitive in deep soil than in topsoil in subtropical forests. <i>Pedobiologia</i> , 2021, 84, 150706.	1.2	12
102	Gene structure and expression of the aspen cytosolic copper/zinc-superoxide dismutase (PtSodCc1). <i>Plant Science</i> , 1999, 143, 151-162.	3.6	11
103	Differential responses of carbon and water vapor fluxes to climate among evergreen needleleaf forests in the USA. <i>Ecological Processes</i> , 2016, 5, .	3.9	11
104	Ozone affects the fitness of trembling aspen. <i>Developments in Environmental Science</i> , 2003, , 199-209.	0.5	7
105	Standardized flux seasonality metrics: a companion dataset for FLUXNET annual product. <i>Earth System Science Data</i> , 2021, 13, 1461-1475.	9.9	7
106	Carbon fluxes and storage in forests and landscapes. , 2014, , 139-166.		7
107	Millennial-Scale Carbon Storage in Natural Pine Forests of the North Carolina Lower Coastal Plain: Effects of Artificial Drainage in a Time of Rapid Sea Level Rise. <i>Land</i> , 2021, 10, 1294.	2.9	7
108	Using $\delta^{13}C$ and $\delta^{18}O$ to analyze loblolly pine ( <i>Pinus taeda</i> L.) response to experimental drought and fertilization. <i>Tree Physiology</i> , 2019, 39, 1984-1994.	3.1	6

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109	Automated Geospatial Models of Varying Complexities for Pine Forest Evapotranspiration Estimation with Advanced Data Mining. <i>Water (Switzerland)</i> , 2018, 10, 1687.	2.7	5
110	Effects of climate and land use on landscape soil respiration in northern Wisconsin, USA: 1972 to 2001. <i>Climate Research</i> , 2005, 28, 163-173.	1.1	5
111	Effects of elevated CO <sub>2</sub> and O <sub>3</sub> on aspen clones of varying O <sub>3</sub> sensitivity. <i>Developments in Environmental Science</i> , 2003, 3, 391-409.	0.5	4
112	An extractive removal step optimized for a high-throughput $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ stable isotope ratio analysis in conifer tree rings. <i>Tree Physiology</i> , 2016, 37, 142-150.	3.1	4
113	Forest Drought Response Index (ForDRI): A New Combined Model to Monitor Forest Drought in the Eastern United States. <i>Remote Sensing</i> , 2020, 12, 3605.	4.0	4
114	Heterotrophic Respiration and the Divergence of Productivity and Carbon Sequestration. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL092366.	4.0	4
115	Site Characteristics Mediate the Relationship Between Forest Productivity and Satellite Measured Solar Induced Fluorescence. <i>Frontiers in Forests and Global Change</i> , 2021, 4, .	2.3	4
116	Beyond carbon flux partitioning: Carbon allocation and nonstructural carbon dynamics inferred from continuous fluxes. <i>Ecological Applications</i> , 2022, 32, e2655.	3.8	2
117	Olevi Kull's lifetime contribution to ecology. <i>Tree Physiology</i> , 2008, 28, 483-490.	3.1	1
118	Spatial variability in tree-ring carbon isotope discrimination in response to local drought across the entire loblolly pine natural range. <i>Tree Physiology</i> , 2022, 42, 44-58.	3.1	1