Steven F Oberbauer

List of Publications by Year
in descending order

89 papers	8,970 citations	61857 43 h-index	45213 90 g-index
90 all docs	90 docs citations	90 times ranked	10337 citing authors

#	Article	IF	Citations
1	From The Cover: Plant community responses to experimental warming across the tundra biome. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1342-1346.	3.3	1,060
2	Global assessment of experimental climate warming on tundra vegetation: heterogeneity over space and time. Ecology Letters, 2012, 15, 164-175.	3.0	764
3	Plot-scale evidence of tundra vegetation change and links to recent summer warming. Nature Climate Change, 2012, 2, 453-457.	8.1	745
4	Winter Biological Processes Could Help Convert Arctic Tundra to Shrubland. BioScience, 2005, 55, 17.	2.2	557
5	Plant functional trait change across a warming tundra biome. Nature, 2018, 562, 57-62.	13.7	451
6	Why leaves are sometimes red. Nature, 1995, 378, 241-242.	13.7	309
7	TUNDRA CO2FLUXES IN RESPONSE TO EXPERIMENTAL WARMING ACROSS LATITUDINAL AND MOISTURE GRADIENTS. Ecological Monographs, 2007, 77, 221-238.	2.4	261
8	Annual wood production in a tropical rain forest in NE Costa Rica linked to climatic variation but not to increasing CO₂. Global Change Biology, 2010, 16, 747-759.	4.2	222
9	Long-term study of solar radiation regimes in a tropical wet forest using quantum sensors and hemispherical photography. Agricultural and Forest Meteorology, 1993, 65, 107-127.	1.9	214
10	Experiment, monitoring, and gradient methods used to infer climate change effects on plant communities yield consistent patterns. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 448-452.	3.3	200
11	The landâ€“atmosphere water flux in the tropics. Global Change Biology, 2009, 15, 2694-2714.	4.2	198
12	Greater temperature sensitivity of plant phenology at colder sites: implications for convergence across northern latitudes. Global Change Biology, 2017, 23, 2660-2671.	4.2	171
13	Effects of light regime on the growth, leaf morphology, and water relations of seedlings of two species of tropical trees. Oecologia, 1983, 58, 314-319.	0.9	166
14	Stocks and flows of coarse woody debris across a tropical rain forest nutrient and topography gradient. Forest Ecology and Management, 2002, 164, 237-248.	1.4	160
15	Landscape-scale evaluation of understory light and canopy structures: methods and application in a neotropical lowland rain forest. Canadian Journal of Forest Research, 1996, 26, 747-757.	0.8	156
16	PHOTOSYNTHESIS OF ARCTIC EVERGREENS UNDER SNOW: IMPLICATIONS FOR TUNDRA ECOSYSTEM CARBON BALANCE. Ecology, 2003, 84, 1415-1420.	1.5	153
17	Effect of CO2-enrichnient on seedling physiology and growth of two tropical tree species. Physiologia Plantarum, 1985, 65, 352-356.	2.6	132
18	First direct landscapeâ€•scale measurement of tropical rain forest Leaf Area Index, a key driver of global primary productivity. Ecology Letters, 2008, 11, 163-172.	3.0	130

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19	Height is more important than light in determining leaf morphology in a tropical forest. Ecology, 2010, 91, 1730-1739.	1.5	113
20	Fieldâ€quantified responses of tropical rainforest aboveground productivity to increasing CO₂ and climatic stress, 1997â€“2009. Journal of Geophysical Research G: Biogeosciences, 2013, 118, 783-794.	1.3	110
21	Climate seasonality limits leaf carbon assimilation and wood productivity in tropical forests. Biogeosciences, 2016, 13, 2537-2562.	1.3	108
22	Effects of lengthened growing season and soil warming on the phenology and physiology of Polygonum bistorta. Global Change Biology, 2000, 6, 357-369.	4.2	100
23	EFFECTS OF CANOPY POSITION AND IRRADIANCE ON THE LEAF PHYSIOLOGY AND MORPHOLOGY OF PENTACLETHRA MACROLOBA (MIMOSACEAE). American Journal of Botany, 1986, 73, 409-416.	0.8	91
24	Foliar and ecosystem respiration in an oldâ€growth tropical rain forest. Plant, Cell and Environment, 2008, 31, 473-483.	2.8	91
25	Drought tolerance and water use by plants along an alpine topographic gradient. Oecologia, 1981, 50, 325-331.	0.9	88
26	Photosynthesis and successional status of Costa Rican rain forest trees. Photosynthesis Research, 1984, 5, 227-232.	1.6	85
27	Environmental Effects on CO 2 Efflux from Water Track and Tussock Tundra in Arctic Alaska, U.S.A.. Arctic and Alpine Research, 1991, 23, 162.	1.3	85
28	Spatial variation of throughfall volume in an old-growth tropical wet forest, Costa Rica. Journal of Tropical Ecology, 2002, 18, 397-407.	0.5	85
29	Effects of light regime on the growth and physiology of<i>Pentaclethra macroloba</i>(Mimosaceae) in Costa Rica. Journal of Tropical Ecology, 1985, 1, 303-320.	0.5	84
30	Statistical upscaling of ecosystem CO₂ fluxes across the terrestrial tundra and boreal domain: Regional patterns and uncertainties. Global Change Biology, 2021, 27, 4040-4059.	4.2	83
31	Warming shortens flowering seasons of tundra plant communities. Nature Ecology and Evolution, 2019, 3, 45-52.	3.4	79
32	Wood CO2 efflux in a primary tropical rain forest. Global Change Biology, 2006, 12, 2442-2458.	4.2	76
33	Seasonal differences in the CO2 exchange of a short-hydroperiod Florida Everglades marsh. Agricultural and Forest Meteorology, 2010, 150, 994-1006.	1.9	67
34	Photosynthetic induction responses of two rainforest tree species in relation to light environment. Oecologia, 1993, 96, 193-199.	0.9	65
35	Relating NDVI to ecosystem CO2 exchange patterns in response to season length and soil warming manipulations in arctic Alaska. Remote Sensing of Environment, 2007, 109, 225-236.	4.6	64
36	Welcome to the <i>Atta</i> world: A framework for understanding the effects of leafâ€cutter ants on ecosystem functions. Functional Ecology, 2019, 33, 1386-1399.	1.7	61

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37	Comparison of direct and indirect methods for assessing leaf area index across a tropical rain forest landscape. Agricultural and Forest Meteorology, 2013, 177, 110-116.	1.9	60
38	The Photosynthetic Response of Alaskan Tundra Plants to Increased Season Length and Soil Warming. Arctic, Antarctic, and Alpine Research, 2008, 40, 181-191.	0.4	58
39	Coupled long-term summer warming and deeper snow alters species composition and stimulates gross primary productivity in tussock tundra. Oecologia, 2016, 181, 287-297.	0.9	58
40	Tundra Trait Team: A database of plant traits spanning the tundra biome. Global Ecology and Biogeography, 2018, 27, 1402-1411.	2.7	57
41	Rainfall and cloud-water interception in tropical montane forests in the eastern Andes of Central Peru. Forest Ecology and Management, 2008, 255, 1315-1325.	1.4	53
42	Plant phenological responses to a longâ€term experimental extension of growing season and soil warming in the tussock tundra of Alaska. Global Change Biology, 2015, 21, 4520-4532.	4.2	51
43	Effects of irradiance and spectral quality on seedling development of two Southeast Asian Hopea species. Oecologia, 1997, 110, 1-9.	0.9	44
44	Tropical rainforest carbon sink declines during El NiÃ±o as a result of reduced photosynthesis and increased respiration rates. New Phytologist, 2017, 216, 136-149.	3.5	42
45	Warming experiments elucidate the drivers of observed directional changes in tundra vegetation. Ecology and Evolution, 2015, 5, 1881-1895.	0.8	39
46	Light environment, gas exchange, and annual growth of saplings of three species of rain forest trees in Costa Rica. Journal of Tropical Ecology, 1993, 9, 511-523.	0.5	38
47	Soil respiration of Alaskan tundra at elevated atmospheric carbon dioxide concentrations. Plant and Soil, 1986, 96, 145-148.	1.8	35
48	Short term changes in moisture content drive strong changes in Normalized Difference Vegetation Index and gross primary productivity in four Arctic moss communities. Remote Sensing of Environment, 2018, 212, 114-120.	4.6	35
49	Leaf Optical Properties Along a Vertical Gradient in a Tropical Rain Forest Canopy in Costa Rica. American Journal of Botany, 1995, 82, 1257.	0.8	34
50	Diurnal and Seasonal Patterns of Ecosystem CO 2 Efflux from Upland Tundra in the Foothills of the Brooks Range, Alaska, U.S.A.. Arctic and Alpine Research, 1996, 28, 328.	1.3	34
51	A connection to deep groundwater alters ecosystem carbon fluxes and budgets: Example from a Costa Rican rainforest. Geophysical Research Letters, 2013, 40, 2066-2070.	1.5	34
52	Intensified inundation shifts a freshwater wetland from a CO₂ sink to a source. Global Change Biology, 2019, 25, 3319-3333.	4.2	34
53	Phenology and Stem Diameter Increment Seasonality in a Costa Rican Wet Tropical Forest. Biotropica, 2008, 40, 151-159.	0.8	32
54	Effects of Fine-Scale Topography on CO₂ Flux Components of Alaskan Coastal Plain Tundra: Response to Contrasting Growing Seasons. Arctic, Antarctic, and Alpine Research, 2011, 43, 256-266.	0.4	32

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55	Regional Groundwater and Storms Are Hydrologic Controls on the Quality and Export of Dissolved Organic Matter in Two Tropical Rainforest Streams, Costa Rica. Journal of Geophysical Research G: Biogeosciences, 2018, 123, 850-866.	1.3	32
56	Biotic and abiotic controls on diurnal fluctuations in labile soil phosphorus of a wet tropical forest. Ecology, 2009, 90, 2547-2555.	1.5	31
57	Arctic plant ecophysiology and water source utilization in response to altered snow: isotopic (Î´18O) Tj ETQq1 1 0.784314 rgBT /Over	0.9	31
58	Herbivore-Free Time? Damage to New Leaves of Woody Plants after Hurricane Andrew1. Biotropica, 2002, 34, 547-554.	0.8	28
59	Treeâ€"Grass Coexistence in the Everglades Freshwater System. Ecosystems, 2011, 14, 298-310.	1.6	28
60	Seasonal patterns in energy partitioning of two freshwater marsh ecosystems in the Florida Everglades. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1487-1505.	1.3	23
61	Ecophysiological analysis of two arctic sedges under reduced root temperatures. Physiologia Plantarum, 2004, 120, 458-464.	2.6	21
62	Controls on sensible heat and latent energy fluxes from a short-hydroperiod Florida Everglades marsh. Journal of Hydrology, 2011, 411, 331-341.	2.3	21
63	GROWTH ANALYSIS AND SUCCESSIONAL STATUS OF COSTA RICAN RAIN FOREST TREES. New Phytologist, 1986, 104, 517-521.	3.5	20
64	El NiÃ±o Southern Oscillation (ENSO) Enhances CO2 Exchange Rates in Freshwater Marsh Ecosystems in the Florida Everglades. PLoS ONE, 2014, 9, e115058.	1.1	20
65	Spatial and temporal variability in spectral-based surface energy evapotranspiration measured from Landsat 5TM across two mangrove ecotones. Agricultural and Forest Meteorology, 2015, 213, 304-316.	1.9	20
66	The effect of regional groundwater on carbon dioxide and methane emissions from a lowland rainforest stream in Costa Rica. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 2579-2595.	1.3	19
67	Diminished Response of Arctic Plants to Warming over Time. PLoS ONE, 2015, 10, e0116586.	1.1	19
68	Arctic plant responses to changing abiotic factors in northern Alaska. American Journal of Botany, 2015, 102, 2020-2031.	0.8	18
69	Maximum CO2-assimilation rates of vascular plants on an Alaskan arctic tundra slope. Ecography, 1989, 12, 312-316.	2.1	17
70	Diurnal patterns of gasâ€exchange and metabolic pools in tundra plants during three phases of the arctic growing season. Ecology and Evolution, 2013, 3, 375-388.	0.8	16
71	Use of a watershed hydrologic model to estimate interbasin groundwater flow in a Costa Rican rainforest. Hydrological Processes, 2014, 28, 3670-3680.	1.1	16
72	NDVI Changes Show Warming Increases the Length of the Green Season at Tundra Communities in Northern Alaska: A Fine-Scale Analysis. Frontiers in Plant Science, 2020, 11, 1174.	1.7	16

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73	An inexpensive, portable meter for measuring soil moisture. Soil Science Society of America Journal, 2001, 65, 1081-1083.	1.2	13
74	Lowâ€cost soil <scp>CO</scp>₂ efflux and point concentration sensing systems for terrestrial ecology applications. Methods in Ecology and Evolution, 2015, 6, 1358-1362.	2.2	13
75	The Effects of Mite Galling on the Ecophysiology of Two Arctic Willows. Arctic, Antarctic, and Alpine Research, 2013, 45, 99-106.	0.4	10
76	Short-Term Impacts of the Air Temperature on Greening and Senescence in Alaskan Arctic Plant Tundra Habitats. Remote Sensing, 2017, 9, 1338.	1.8	10
77	Comparison of sensible heat flux measured by large aperture scintillometer and eddy covariance in a seasonally-inundated wetland. Agricultural and Forest Meteorology, 2018, 259, 345-354.	1.9	9
78	Multidecadal stability in tropical rain forest structure and dynamics across an old-growth landscape. PLoS ONE, 2017, 12, e0183819.	1.1	7
79	Stomatal conductance patterns of <i>Equisetum giganteum</i> stems in response to environmental factors in South America. Botany, 2014, 92, 701-712.	0.5	6
80	Examination of Surface Temperature Modification by Open-Top Chambers along Moisture and Latitudinal Gradients in Arctic Alaska Using Thermal Infrared Photography. Remote Sensing, 2016, 8, 54.	1.8	6
81	Chamber measurements of high CO2 emissions from a rainforest stream receiving old C-rich regional groundwater. Biogeochemistry, 2016, 130, 69-83.	1.7	6
82	Water uptake of Alaskan tundra evergreens during the winterâ€“spring transition. American Journal of Botany, 2016, 103, 298-306.	0.8	6
83	The Î´¹⁵N signature of the detrital food web tracks a landscape-scale soil phosphorus gradient in a Costa Rican lowland tropical rain forest. Journal of Tropical Ecology, 2012, 28, 395-403.	0.5	5
84	Speciesâ€specific trends and variability in plant functional traits across a latitudinal gradient in northern Alaska. Journal of Vegetation Science, 2021, 32, e13040.	1.1	5
85	Physical structure and biological composition of canopies in tropical secondary and old-growth forests. PLoS ONE, 2021, 16, e0256571.	1.1	5
86	Freshwater wetland plants respond nonlinearly to inundation over a sustained period. American Journal of Botany, 2021, 108, 1917-1931.	0.8	3
87	Volume 18, Number 3, May 2002, Spatial variation of throughfall volume in an old-growth tropical wet forest, Costa Rica. Journal of Tropical Ecology, 2002, 18, 949-949.	0.5	2
88	Annual Tropicalâ€Rainforest Productivity Through Two Decades: Complex Responses to Climatic Factors, [CO₂] and Storm Damage. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006557.	1.3	2
89	Simulated hurricaneâ€induced changes in light and nutrient regimes change seedling performance in Everglades forestâ€dominant species. Ecology and Evolution, 2021, 11, 17762-17773.	0.8	1