Ruth D Yanai

List of Publications by Year
in descending order

99 papers	6,136 citations	37 h-index (94433)	75 g-index (74163)
100 all docs	100 docs citations	100 times ranked	8037 citing authors

#	Article	IF	Citations
1	TRY plant trait database â€“ enhanced coverage and open access. Global Change Biology, 2020, 26, 119-188.	9.5	1,038
2	Building roots in a changing environment: implications for root longevity. New Phytologist, 2000, 147, 33-42.	7.3	725
3	The Ecology of Root Lifespan. Advances in Ecological Research, 1997, 27, 1-60.	2.7	658
4	Soil Carbon Dynamics after Forest Harvest: An Ecosystem Paradigm Reconsidered. Ecosystems, 2003, 6, 197-212.	3.4	251
5	The Biogeochemistry of Carbon at Hubbard Brook. Biogeochemistry, 2005, 75, 109-176.	3.5	246
6	Challenges of measuring forest floor organic matter dynamics:. Forest Ecology and Management, 2000, 138, 273-283.	3.2	147
7	Modeling changes in red spruce carbon balance and allocation in response to interacting ozone and nutrient stresses. Tree Physiology, 1991, 9, 127-146.	3.1	137
8	Estimating age-dependent costs and benefits of roots with contrasting life span: comparing apples and oranges. New Phytologist, 2001, 150, 685-695.	7.3	127
9	BAAD: a Biomass And Allometry Database for woody plants. Ecology, 2015, 96, 1445-1445.	3.2	122
10	Phosphorus budget of a 70-year-old northern hardwood forest. Biogeochemistry, 1992, 17, 1.	3.5	121
11	Wood ash effects on plant and soil in a willow bioenergy plantation. Biomass and Bioenergy, 2005, 28, 355-365.	5.7	95
12	Detecting Change in Forest Floor Carbon. Soil Science Society of America Journal, 2003, 67, 1583-1593.	2.2	92
13	Soil nitrogen affects phosphorus recycling: foliar resorption and plantâ€"soil feedbacks in a northern hardwood forest. Ecology, 2015, 96, 2488-2498.	3.2	88
14	ACCUMULATION AND DEPLETION OF BASE CATIONS IN FOREST FLOORS IN THE NORTHEASTERN UNITED STATES. Ecology, 1999, 80, 2774-2787.	3.2	82
15	The vertical and horizontal distribution of roots in northern hardwood stands of varying age. Canadian Journal of Forest Research, 2006, 36, 450-459.	1.7	80
16	Estimating Uncertainty in Ecosystem Budget Calculations. Ecosystems, 2010, 13, 239-248.	3.4	76
17	From Missing Source to Missing Sink: Long-Term Changes in the Nitrogen Budget of a Northern Hardwood Forest. Environmental Science & Technology, 2013, 47, 11440-11448.	10.0	76
18	The effect of whole-tree harvest on phosphorus cycling in a northern hardwood forest. Forest Ecology and Management, 1998, 104, 281-295.	3.2	74

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19	A Steady-State Model of Nutrient Uptake Accounting for Newly Grown Roots. Soil Science Society of America Journal, 1994, 58, 1562-1571.	2.2	66
20	Phosphorus limitation of aboveground production in northern hardwood forests. Ecology, 2018, 99, 438-449.	3.2	65
21	Rates of sustainable forest harvest depend on rotation length and weathering of soil minerals. Forest Ecology and Management, 2014, 318, 194-205.	3.2	63
22	A sequential extraction to determine the distribution of apatite in granitoid soil mineral pools with application to weathering at the Hubbard Brook Experimental Forest, NH, USA. Applied Geochemistry, 2007, 22, 2406-2421.	3.0	60
23	Multi-dimensional sensitivity analysis and ecological implications of a nutrient uptake model. Plant and Soil, 1996, 180, 311-324.	3.7	59
24	Allometric equations for young northern hardwoods: the importance of age-specific equations for estimating aboveground biomass. Canadian Journal of Forest Research, 2011, 41, 881-891.	1.7	59
25	Biotic Control of Calcium Cycling in Northern Hardwood Forests: Acid Rain and Aging Forests. Ecosystems, 2003, 6, 399-406.	3.4	56
26	Estimating Root Biomass in Rocky Soils using Pits, Cores, and Allometric Equations. Soil Science Society of America Journal, 2007, 71, 206-213.	2.2	53
27	Measured and modelled differences in nutrient concentrations between rhizosphere and bulk soil in a Norway spruce stand. Plant and Soil, 2003, 257, 133-142.	3.7	52
28	Changes in stream chemistry and nutrient export following a partial harvest in the Catskill Mountains, New York, USA. Forest Ecology and Management, 2006, 223, 103-112.	3.2	52
29	Integrating the Effects of Simultaneous Multiple Stresses on Plants Using the Simulation Model TREGRO. Journal of Environmental Quality, 1994, 23, 418-428.	2.0	51
30	Estimating uncertainty in the volume and carbon storage of downed coarse woody debris. Ecological Applications, 2019, 29, e01844.	3.8	51
31	Evaluating the efficiency of environmental monitoring programs. Ecological Indicators, 2014, 39, 94-101.	6.3	47
32	Estimating nutrient uptake by mature tree roots under field conditions: challenges and opportunities. Trees - Structure and Function, 2007, 21, 593-603.	1.9	46
33	Synergistic soil response to nitrogen plus phosphorus fertilization in hardwood forests. Biogeochemistry, 2014, 118, 195-204.	3.5	45
34	Soil Nitrogen Availability Affects Belowground Carbon Allocation and Soil Respiration in Northern Hardwood Forests of New Hampshire. Ecosystems, 2015, 18, 1179-1191.	3.4	44
35	Use of foliar Ca/Sr discrimination and 87Sr/86Sr ratios to determine soil Ca sources to sugar maple foliage in a northern hardwood forest. Biogeochemistry, 2008, 87, 287-296.	3.5	42
36	Approaches to stream solute load estimation for solutes with varying dynamics from five diverse small watersheds. Ecosphere, 2016, 7, e01298.	2.2	42

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37	Fine Root Dynamics and Forest Production Across a Calcium Gradient in Northern Hardwood and Conifer Ecosystems. Ecosystems, 2008, 11, 325-341.	3.4	39
38	Nitrogen immobilization by wood-chip application: Protecting water quality in a northern hardwood forest. Forest Ecology and Management, 2008, 255, 2589-2601.	3.2	36
39	Soil Solution Phosphorus Dynamics in a Whole-Tree-Harvested Northern Hardwood Forest. Soil Science Society of America Journal, 1991, 55, 1746-1752.	2.2	35
40	The Quantitative Soil Pit Method for Measuring Belowground Carbon and Nitrogen Stocks. Soil Science Society of America Journal, 2012, 76, 2241-2255.	2.2	33
41	Identifying roots of northern hardwood species: patterns with diameter and depth. Canadian Journal of Forest Research, 2008, 38, 2862-2869.	1.7	32
42	Nutrient concentrations in roots, leaves and wood of seedling and mature sugar maple and American beech at two contrasting sites. Forest Ecology and Management, 2009, 258, 1153-1160.	3.2	32
43	Forest floor microbial biomass across a northern hardwood successional sequence. Soil Biology and Biochemistry, 1999, 31, 431-439.	8.8	30
44	Mineral Sources of Calcium and Phosphorus in Soils of the Northeastern United States. Soil Science Society of America Journal, 2008, 72, 1786-1794.	2.2	28
45	Quantifying Uncertainty in Forest Nutrient Budgets. Journal of Forestry, 2012, 110, 448-456.	1.0	28
46	Woody understory response to changes in overstory density: thinning in Allegheny hardwoods. Forest Ecology and Management, 1998, 102, 45-60.	3.2	26
47	Variation in mass and nutrient concentration of leaf litter across years and sites in a northern hardwood forest. Canadian Journal of Forest Research, 2012, 42, 1597-1610.	1.7	26
48	Sources of uncertainty in estimating stream solute export from headwater catchments at three sites. Hydrological Processes, 2015, 29, 1793-1805.	2.6	26
49	Patterns of early cohort development following shelterwood cutting in three Adirondack northern hardwood stands. Forest Ecology and Management, 1999, 119, 1-11.	3.2	25
50	Temporal variation in nutrient uptake capacity by intact roots of mature loblolly pine. Plant and Soil, 2005, 272, 253-262.	3.7	24
51	Nitrogenâ€“phosphorous interactions in young northern hardwoods indicate P limitation: foliar concentrations and resorption in a factorial N by P addition experiment. Oecologia, 2019, 189, 829-840.	2.0	24
52	Improving uncertainty in forest carbon accounting for REDD+ mitigation efforts. Environmental Research Letters, 2020, 15, 124002.	5.2	23
53	Measuring mercury in wood: challenging but important. International Journal of Environmental Analytical Chemistry, 2017, 97, 456-467.	3.3	22
54	Concentrations and content of mercury in bark, wood, and leaves in hardwoods and conifers in four forested sites in the northeastern USA. PLoS ONE, 2018, 13, e0196293.	2.5	22

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55	Wood Ash Effects on Soil Solution and Nutrient Budgets in A Willow Bioenergy Plantation. Water, Air, and Soil Pollution, 2004, 159, 209-224.	2.4	21
56	Validation and refinement of allometric equations for roots of northern hardwoods. Canadian Journal of Forest Research, 2007, 37, 1777-1783.	1.7	20
57	Lead Reduction and Redistribution in the Forest Floor in New Hampshire Northern Hardwoods. Journal of Environmental Quality, 2004, 33, 141-148.	2.0	19
58	Climate change may alter mercury fluxes in northern hardwood forests. Biogeochemistry, 2019, 146, 1-16.	3.5	18
59	Forest fragmentation and duration of forest tent caterpillar (Malacosoma disstria HÃ¼bner) outbreaks in northern hardwood forests. Forest Ecology and Management, 2010, 260, 1193-1197.	3.2	17
60	Foliar Nutrient Concentrations Related to Soil Sources across a Range of Sites in the Northeastern United States. Soil Science Society of America Journal, 2012, 76, 674-683.	2.2	17
61	Determination of foliar Ca/Sr discrimination factors for six tree species and implications for Ca sources in northern hardwood forests. Plant and Soil, 2012, 356, 303-314.	3.7	17
62	Similarity of nutrient uptake and root dimensions of Engelmann spruce and subalpine fir at two contrasting sites in Colorado. Forest Ecology and Management, 2009, 258, 2233-2241.	3.2	15
63	Response of forest soil respiration to nutrient addition depends on site fertility. Biogeochemistry, 2016, 127, 113-124.	3.5	15
64	Minimizing nutrient leaching and improving nutrient use efficiency of Liriodendron tulipifera and Larix leptolepis in a container nursery system. New Forests, 2012, 43, 57-68.	1.7	14
65	Current Practices in Reporting Uncertainty in Ecosystem Ecology. Ecosystems, 2018, 21, 971-981.	3.4	13
66	New Approaches to Understand Mercury in Trees: Radial and Longitudinal Patterns of Mercury in Tree Rings and Genetic Control of Mercury in Maple Sap. Water, Air, and Soil Pollution, 2020, 231, 1.	2.4	13
67	Effects of stresses on forest growth in models applied to the Solling spruce site. Ecological Modelling, 1995, 83, 273-282.	2.5	12
68	The Effects of AlCl3Additions on Rhizosphere Soil and Fine Root Chemistry of Sugar Maple (Acer) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	2.4	12
69	Measuring Nitrogen and Phosphorus Uptake by Intact Roots of Mature Acer saccharum Marsh., Pinus resinosa Ait., and Picea abies (L.) Karst. Plant and Soil, 2006, 279, 163-172.	3.7	12
70	A molecular approach to quantify root community composition in a northern hardwood forest â€” testing effects of root species, relative abundance, and diameter. Canadian Journal of Forest Research, 2010, 40, 836-841.	1.7	12
71	Comparing selection system and diameter-limit cutting in uneven-aged northern hardwoods using computer simulation. Canadian Journal of Forest Research, 2011, 41, 963-973.	1.7	12
72	Soil nutrients affect sweetness of sugar maple sap. Forest Ecology and Management, 2015, 341, 30-36.	3.2	12

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73	Assessing the Suitability of Rotary Coring for Sampling in Rocky Soils. Soil Science Society of America Journal, 2012, 76, 1707-1718.	2.2	11
74	Uncertainty in the net hydrologic flux of calcium in a pairedâ€watershed harvesting study. Ecosphere, 2016, 7, e01299.	2.2	11
75	Height Development of Upper-Canopy Trees Within Even-Aged Adirondack Northern Hardwood Stands. Northern Journal of Applied Forestry, 2004, 21, 117-122.	0.5	10
76	Rapid, non-destructive carbon analysis of forest soils using neutron-induced gamma-ray spectroscopy. Forest Ecology and Management, 2010, 260, 1132-1137.	3.2	10
77	Sampling effort and uncertainty in leaf litterfall mass and nutrient flux in northern hardwood forests. Ecosphere, 2017, 8, e01999.	2.2	10
78	Early cohort development following even-aged reproduction method cuttings in New York northern hardwoods. Canadian Journal of Forest Research, 2000, 30, 67-75.	1.7	9
79	Sources of variability in tissue chemistry in northern hardwood species. Canadian Journal of Forest Research, 2016, 46, 285-296.	1.7	9
80	Shifting N and P concentrations and stoichiometry during autumn litterfall: Implications for ecosystem monitoring. Ecological Indicators, 2019, 103, 488-492.	6.3	9
81	The current state of uncertainty reporting in ecosystem studies: a systematic evaluation of peerâ€reviewed literature. Ecosphere, 2021, 12, e03535.	2.2	9
82	Nutrient uptake by intact and disturbed roots of loblolly pine seedlings. Environmental and Experimental Botany, 2008, 64, 15-20.	4.2	8
83	Foliar nutrient concentrations of six northern hardwood species responded to nitrogen and phosphorus fertilization but did not predict tree growth. PeerJ, 2022, 10, e13193.	2.0	8
84	N and P constrain C in ecosystems under climate change: Role of nutrient redistribution, accumulation, and stoichiometry. Ecological Applications, 2022, 32, .	3.8	8
85	Spatial patterns and temporal trends in mercury concentrations in common loons (Gavia immer) from 1998 to 2016 in New Yorkâ€™s Adirondack Park: has this top predator benefitted from mercury emission controls?. Ecotoxicology, 2020, 29, 1774-1785.	2.4	7
86	Growing-Space Relationships in Young Even-Aged Northern Hardwood Stands Based on Individual-Tree and Plot-Level Measurements. Northern Journal of Applied Forestry, 2011, 28, 27-35.	0.5	6
87	Downsizing a long-term precipitation network: Using a quantitative approach to inform difficult decisions. PLoS ONE, 2018, 13, e0195966.	2.5	6
88	Quantifying uncertainty in annual runoff due to missing data. PeerJ, 2020, 8, e9531.	2.0	6
89	Fine Root Growth Increases in Response to Nitrogen Addition in Phosphorus-limited Northern Hardwood Forests. Ecosystems, 2022, 25, 1589-1600.	3.4	6
90	Landscape and Individual Tree Predictors of Dark Heart Size in Sugar Maple. Journal of Forestry, 2015, 113, 20-29.	1.0	5

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91	Determining optimal sampling strategies for monitoring mercury and reproductive success in common loons in the Adirondacks of New York. Ecotoxicology, 2020, 29, 1786-1793.	2.4	4
92	Model transformation rules and model disaggregation. Science of the Total Environment, 1996, 183, 25-31.	8.0	3
93	Abiotic and Biotic Factors Influencing Sugar Maple Health: Soils, Topography, Climate, and Defoliation. Soil Science Society of America Journal, 2014, 78, 2061-2070.	2.2	3
94	Lead Reduction and Redistribution in the Forest Floor in New Hampshire Northern Hardwoods. Journal of Environmental Quality, 2004, 33, 141.	2.0	2
95	Processes Affecting Carbon Storage in the Forest Floor and in Downed Woody Debris. , 2002, , .		2
96	Length and colonization rates of roots associated with arbuscular or ectomycorrhizal fungi decline differentially with depth in two northern hardwood forests. Mycorrhiza, 2022, 32, 213.	2.8	2
97	Estimating uncertainties in watershed studies. Eos, 2011, 92, 220-220.	0.1	1
98	Nutrient concentrations of roots vary with diameter, depth, and site in New Hampshire northern hardwoods. Canadian Journal of Forest Research, 2018, 48, 32-41.	1.7	0
99	Modeling Nutrient Uptake as a Component of Loblolly Pine Response to Environmental Stress. Ecological Studies, 1998, , 293-304.	1.2	0