

# Robert D Guy

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3628055/publications.pdf>

Version: 2024-02-01

79  
papers

4,380  
citations

101543

36  
h-index

114465

63  
g-index

81  
all docs

81  
docs citations

81  
times ranked

4477  
citing authors

#	ARTICLE	IF	CITATIONS
1	Photosynthetic Fractionation of the Stable Isotopes of Oxygen and Carbon. <i>Plant Physiology</i> , 1993, 101, 37-47.	4.8	401
2	Differential fractionation of oxygen isotopes by cyanide-resistant and cyanide-sensitive respiration in plants. <i>Planta</i> , 1989, 177, 483-491.	3.2	198
3	The effects of nitrogen stress on the stable carbon isotope composition, productivity and water use efficiency of white spruce ( <i>Picea glauca</i> (Moench) Voss) seedlings. <i>Plant, Cell and Environment</i> , 1999, 22, 281-289.	5.7	189
4	Geographical and environmental gradients shape phenotypic trait variation and genetic structure in <i>Populus trichocarpa</i> . <i>New Phytologist</i> , 2014, 201, 1263-1276.	7.3	185
5	Genome-wide association implicates numerous genes underlying ecological trait variation in natural populations of <i>Populus trichocarpa</i> . <i>New Phytologist</i> , 2014, 203, 535-553.	7.3	171
6	Genome-wide association mapping for wood characteristics in <i>Populus</i> identifies an array of candidate single nucleotide polymorphisms. <i>New Phytologist</i> , 2013, 200, 710-726.	7.3	158
7	Enhanced assimilation rate and water use efficiency with latitude through increased photosynthetic capacity and internal conductance in balsam poplar ( <i>Populus balsamifera</i> L.). <i>Plant, Cell and Environment</i> , 2009, 32, 1821-1832.	5.7	140
8	Shifts in carbon isotope ratios of two C3 halophytes under natural and artificial conditions. <i>Oecologia</i> , 1980, 44, 241-247.	2.0	126
9	Stable carbon isotopes as indicators of increased water use efficiency and productivity in white spruce ( <i>Picea glauca</i> (Moench) Voss) seedlings. <i>Plant, Cell and Environment</i> , 1996, 19, 887-894.	5.7	126
10	Access to mycorrhizal networks and roots of trees: importance for seedling survival and resource transfer. <i>Ecology</i> , 2009, 90, 2808-2822.	3.2	124
11	Recent Y chromosome divergence despite ancient origin of dioecy in poplars ( <i>Populus</i> ). <i>Molecular Ecology</i> , 2015, 24, 3243-3256.	3.9	121
12	Whole-plant nitrogen- and water-relations traits, and their associated trade-offs, in adjacent muskeg and upland boreal spruce species. <i>Oecologia</i> , 1997, 110, 160-168.	2.0	109
13	Climate-driven local adaptation of ecophysiology and phenology in balsam poplar, <i>Populus balsamifera</i> L. (Salicaceae). <i>American Journal of Botany</i> , 2011, 98, 99-108.	1.7	103
14	Association genetics, geography and ecophysiology link stomatal patterning in <i>Populus trichocarpa</i> with carbon gain and disease resistance trade-offs. <i>Molecular Ecology</i> , 2014, 23, 5771-5790.	3.9	103
15	A 34K SNP genotyping array for <i>Populus trichocarpa</i> : Design, application to the study of natural populations and transferability to other <i>Populus</i> species. <i>Molecular Ecology Resources</i> , 2013, 13, 306-323.	4.8	92
16	The adaptive potential of <i>Populus balsamifera</i> L. to phenology requirements in a warmer global climate. <i>Molecular Ecology</i> , 2013, 22, 1214-1230.	3.9	91
17	LANDSCAPE GENOMICS OF <i>POPULUS TRICHOCARPA</i> : THE ROLE OF HYBRIDIZATION, LIMITED GENE FLOW, AND NATURAL SELECTION IN SHAPING PATTERNS OF POPULATION STRUCTURE. <i>Evolution; International Journal of Organic Evolution</i> , 2014, 68, 3260-3280.	2.3	88
18	Investigating the drought-stress response of hybrid poplar genotypes by metabolite profiling. <i>Tree Physiology</i> , 2014, 34, 1203-1219.	3.1	84

#	ARTICLE	IF	CITATIONS
19	Induction of nitrate uptake and nitrate reductase activity in trembling aspen and lodgepole pine. <i>Plant, Cell and Environment</i> , 1998, 21, 1039-1046.	5.7	80
20	Significance of Phosphoenolpyruvate Carboxylase during Ammonium Assimilation. <i>Plant Physiology</i> , 1989, 89, 1150-1157.	4.8	74
21	Timing of photoperiodic competency causes phenological mismatch in balsam poplar ( <i>Populus</i> ). <i>Trends in Ecology and Evolution</i> , 2014, 25, 68-74.	5.7	68
22	A comparative study of fluxes and compartmentation of nitrate and ammonium in early-successional tree species. <i>Plant, Cell and Environment</i> , 1999, 22, 821-830.	5.7	67
23	Seasonality and phenology alter functional leaf traits. <i>Oecologia</i> , 2013, 172, 653-665.	2.0	67
24	Emerging roles for carbonic anhydrase in mesophyll conductance and photosynthesis. <i>Plant Journal</i> , 2020, 101, 831-844.	5.7	65
25	Geographic variation in ecophysiological traits of black cottonwood ( <i>Populus</i> ). <i>Trends in Ecology and Evolution</i> , 2010, 21, 507-514. Research in Canada. <i>Canadian Journal of Botany</i> , 2007, 85, 1202-1213.	1.1	62
26	Nitrogen isotope discrimination as an integrated measure of nitrogen fluxes, assimilation and allocation in plants. <i>Physiologia Plantarum</i> , 2014, 151, 293-304.	5.2	60
27	Partitioning of respiratory electrons in the dark in leaves of transgenic tobacco with modified levels of alternative oxidase. <i>Physiologia Plantarum</i> , 2005, 125, 171-180.	5.2	58
28	Sexual homomorphism in dioecious trees: extensive tests fail to detect sexual dimorphism in <i>Populus</i> . <i>Scientific Reports</i> , 2017, 7, 1831.	3.3	54
29	Nitrogen isotope discrimination in white spruce fed with low concentrations of ammonium and nitrate. <i>Trees - Structure and Function</i> , 2005, 19, 89-98.	1.9	53
30	Substantial role for carbonic anhydrase in latitudinal variation in mesophyll conductance of <i>Populus trichocarpa</i> Torr. & Gray. <i>Plant, Cell and Environment</i> , 2017, 40, 138-149.	5.7	52
31	Population differences in stable carbon isotope ratio of <i>Pinus contorta</i> Dougl. ex Loud.: relationship to environment, climate of origin, and growth potential. <i>Canadian Journal of Botany</i> , 2001, 79, 274-283.	1.1	49
32	Factors affecting $\delta^{13}\text{C}$ / $\delta^{12}\text{C}$ ratios of inland halophytes. I. Controlled studies on growth and isotopic composition of <i>Puccinellia nuttalliana</i> . <i>Canadian Journal of Botany</i> , 1986, 64, 2693-2699.	1.1	46
33	Effects of N addition rates on the productivity of <i>Picea sitchensis</i> , <i>Thuja plicata</i> , and <i>Tsuga heterophylla</i> seedlings. <i>Trees - Structure and Function</i> , 1996, 10, 198-205.	1.9	46
34	Tree proximity, soil pathways and common mycorrhizal networks: their influence on the utilization of redistributed water by understory seedlings. <i>Oecologia</i> , 2007, 154, 455-466.	2.0	44
35	Ecological genomics of variation in bud break phenology and mechanisms of response to climate warming in <i>Populus trichocarpa</i> . <i>New Phytologist</i> , 2018, 220, 300-316.	7.3	40
36	Cytochrome and Alternative Pathway Respiration in Green Algae. <i>Plant Physiology</i> , 1990, 93, 356-360.	4.8	39

#	ARTICLE	IF	CITATIONS
37	Leaf mass per area predicts palisade structural properties linked to mesophyll conductance in balsam poplar ( <i>Populus balsamifera</i> L.). <i>Botany</i> , 2016, 94, 225-239.	1.0	39
38	Photosynthesis and the influence of CO <sub>2</sub> -enrichment on delta13C values in a C3 halophyte.. <i>Plant, Cell and Environment</i> , 1986, 9, 65-72.	5.7	36
39	Geographic pattern of genetic variation in photosynthetic capacity and growth in two hardwood species from British Columbia. <i>Oecologia</i> , 2000, 123, 168-174.	2.0	36
40	Exogenous 24-Epibrassinolide Alleviates Effects of Salt Stress on Chloroplasts and Photosynthesis in <i>Robinia pseudoacacia</i> L. Seedlings. <i>Journal of Plant Growth Regulation</i> , 2019, 38, 669-682.	5.1	33
41	Evolutionary Quantitative Genomics of <i>Populus trichocarpa</i> . <i>PLoS ONE</i> , 2015, 10, e0142864.	2.5	31
42	Comparative physiology of allopatric <i>Populus</i> species: geographic clines in photosynthesis, height growth, and carbon isotope discrimination in common gardens. <i>Frontiers in Plant Science</i> , 2015, 6, 528.	3.6	31
43	Association Analysis Identifies <i>Melampsora</i> <i>—columbiana</i> Poplar Leaf Rust Resistance SNPs. <i>PLoS ONE</i> , 2013, 8, e78423.	2.5	31
44	Glycinebetaine content of halophytes: Improved analysis by liquid chromatography and interpretations of results. <i>Physiologia Plantarum</i> , 1984, 61, 195-202.	5.2	27
45	Stable Carbon Isotope Ratio as an Index of Water-Use Efficiency in C3 Halophytes—Possible Relationship to Strategies for Osmotic Adjustment. <i>Ecological Studies</i> , 1989, , 55-75.	1.2	26
46	Stable carbon isotope ratios of flooded and nonflooded sunflowers ( <i>Helianthus annuus</i> ). <i>Canadian Journal of Botany</i> , 1984, 62, 1770-1774.	1.1	25
47	Population differences in stable carbon isotope ratio of <i>Pinus contorta</i> Dougl. ex Loud.: relationship to environment, climate of origin, and growth potential. <i>Canadian Journal of Botany</i> , 2001, 79, 274-283.	1.1	25
48	Comparative Nucleotide Diversity Across North American and European <i>Populus</i> Species. <i>Journal of Molecular Evolution</i> , 2012, 74, 257-272.	1.8	25
49	Whole-plant and organ-level nitrogen isotope discrimination indicates modification of partitioning of assimilation, fluxes and allocation of nitrogen in knockout lines of <i>Arabidopsis thaliana</i> .	5.2	25
50	Interspecific variation in leaf-root differences in $\delta^{15}N$ among three tree species grown with either nitrate or ammonium. <i>Trees - Structure and Function</i> , 2015, 29, 1069-1078.	1.9	25
51	A role for <i>SPEECHLESS</i> in the integration of leaf stomatal patterning with the growth vs disease trade-off in poplar. <i>New Phytologist</i> , 2019, 223, 1888-1903.	7.3	25
52	Transcriptome analysis of metabolic pathways associated with oil accumulation in developing seed kernels of <i>Styrax tonkinensis</i> , a woody biodiesel species. <i>BMC Plant Biology</i> , 2020, 20, 121.	3.6	21
53	Phosphorus storage and resorption in riparian tree species: Environmental applications of poplar and willow. <i>Environmental and Experimental Botany</i> , 2018, 149, 1-8.	4.2	20
54	Hybrid vigour – poplars play it cool. <i>Tree Physiology</i> , 2018, 38, 785-788.	3.1	20

#	ARTICLE	IF	CITATIONS
55	Extensive Functional Pleiotropy of REVOLUTA Substantiated through Forward Genetics $\hat{A}$ . Plant Physiology, 2014, 164, 548-554.	4.8	17
56	Cytochrome and Alternative Pathway Respiration during Transient Ammonium Assimilation by N-Limited Chlamydomonas reinhardtii. Plant Physiology, 1990, 94, 1131-1136.	4.8	16
57	The early bud gets to warm. New Phytologist, 2014, 202, 7-9.	7.3	16
58	Carbon isotope discrimination in western hemlock and its relationship to mineral nutrition and growth. Tree Physiology, 2010, 30, 728-740.	3.1	15
59	Variation in fluxes estimated from nitrogen isotope discrimination corresponds with independent measures of nitrogen flux in <i>Populus balsamifera</i> L. Plant, Cell and Environment, 2016, 39, 310-319.	5.7	15
60	Simulating gross primary production across a chronosequence of coastal Douglas-fir forest stands with a production efficiency model. Agricultural and Forest Meteorology, 2010, 150, 238-253.	4.8	14
61	Quantifying remobilization of pre-existing nitrogen from cuttings to new growth of woody plants using $^{15}\text{N}$ at natural abundance. Plant Methods, 2013, 9, 27.	4.3	14
62	Blue light differentially represses mesophyll conductance in high vs low latitude genotypes of <i>Populus trichocarpa</i> Torr. & Gray. Journal of Plant Physiology, 2017, 213, 122-128.	3.5	14
63	Differences in growth and physiological and metabolic responses among Canadian native and hybrid willows ( <i>Salix</i> spp.) under salinity stress. Tree Physiology, 2020, 40, 652-666.	3.1	14
64	Concomitant effects of mercuric chloride on mesophyll conductance and carbonic anhydrase activity in <i>Populus trichocarpa</i> Torr. & Gray. Trees - Structure and Function, 2018, 32, 301-309.	1.9	12
65	Isotopic composition and concentration of total nitrogen and nitrate in xylem sap under near steady-state hydroponics. Plant, Cell and Environment, 2020, 43, 2112-2123.	5.7	11
66	Comparative resource-use efficiencies and growth of <i>Populus trichocarpa</i> and <i>Populus balsamifera</i> under glasshouse conditions. Botany, 2014, 92, 443-451.	1.0	10
67	Growth response, uptake and mobilization of metals in native plant species on tailings at a Chilean copper mine. International Journal of Phytoremediation, 2021, 23, 539-547.	3.1	10
68	Genotypic variation in C and N isotope discrimination suggests local adaptation of heart-leaved willow. Tree Physiology, 2022, 42, 32-43.	3.1	10
69	Leaf morphology, photosynthesis and pigments change with age and light regime in savin juniper. Plant Biology, 2021, 23, 1097-1108.	3.8	9
70	Effects of N addition rates on the productivity of <i>Picea Sitchensis</i> , <i>Thuja plicata</i> , and <i>Tsuga heterophylla</i> seedlings. Trees - Structure and Function, 1996, 10, 198-205.	1.9	9
71	Influence of the carbon concentrating mechanism on carbon stable isotope discrimination by the marine diatom <i>Thalassiosira pseudonana</i> . Canadian Journal of Botany, 1998, 76, 1098-1103.	1.1	7
72	Genotypic variation in nitrogen isotope discrimination in <i>Populus balsamifera</i> L. clones grown with either nitrate or ammonium. Journal of Plant Physiology, 2016, 201, 54-61.	3.5	7

#	ARTICLE	IF	CITATIONS
73	Impacts of bud set and lammas phenology on root:shoot biomass partitioning and carbon gain physiology in poplar. <i>Trees - Structure and Function</i> , 2016, 30, 2131-2141.	1.9	5
74	Physiological Response of <i>Populus balsamifera</i> and <i>Salix eriocephala</i> to Salinity and Hydraulic Fracturing Wastewater: Potential for Phytoremediation Applications. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 7641.	2.6	5
75	Proteomic analysis of metabolic mechanisms associated with fatty acid biosynthesis during <i>Styrax tonkinensis</i> kernel development. <i>Journal of the Science of Food and Agriculture</i> , 2021, 101, 6053-6063.	3.5	5
76	A comparative study of seed reserve accumulation in five <i>Styrax</i> species with potential for biofuel production. <i>Trees - Structure and Function</i> , 2020, 34, 891-902.	1.9	4
77	Seasonal progression of photoprotection responses in different aged savin juniper plants under shade and sun. <i>Trees - Structure and Function</i> , 2021, 35, 1601-1612.	1.9	2
78	Enlightening the Pathway of Phytoremediation: Ecophysiology and X-ray Fluorescence Visualization of Two Chilean Hardwoods Exposed to Excess Copper. <i>Toxics</i> , 2022, 10, 237.	3.7	2
79	Effects of Fruit Shading on Gene and Protein Expression During Starch and Oil Accumulation in Developing <i>Styrax tonkinensis</i> Kernels. <i>Frontiers in Plant Science</i> , 2022, 13, .	3.6	2