Gail Taylor

List of Publications by Year
in descending order

127 papers	8,192 citations	47006 47 h-index	51608 86 g-index
129 all docs	129 docs citations	129 times ranked	9025 citing authors

#	Article	IF	Citations
1	Predicted wind and solar energy expansion has minimal overlap with multiple conservation priorities across global regions. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	22
2	An underground, wireless, open-source, low-cost system for monitoring oxygen, temperature, and soil moisture. Soil, 2022, 8, 85-97.	4.9	10
3	Improving phosphate use efficiency in the aquatic crop watercress (<i>Nasturtium officinale</i>). Horticulture Research, 2022, 9, .	6.3	5
4	Genotypic and tissue-specific variation of Populus nigra transcriptome profiles in response to drought. Scientific Data, 2022, 9, .	5.3	0
5	Reducing postâ€harvest losses and improving quality in sweet corn (<i>Zea mays</i> L.): challenges and solutions for less food waste and improved food security. Food and Energy Security, 2021, 10, e277.	4.3	16
6	The genetic basis of waterâ€use efficiency and yield in lettuce. BMC Plant Biology, 2021, 21, 237.	3.6	8
7	Land-use change from food to energy: meta-analysis unravels effects of bioenergy on biodiversity and cultural ecosystem services. Environmental Research Letters, 2021, 16, 113005.	5.2	13
8	Embrace open-source sensors for local climate studies. Nature, 2021, 599, 32-32.	27.8	2
9	A placeâ€based participatory mapping approach for assessing cultural ecosystem services in urban green space. People and Nature, 2020, 2, 123-137.	3.7	28
10	The methylome is altered for plants in a high CO₂ world: Insights into the response of a wild plant population to multigenerational exposure to elevated atmospheric [CO₂]. Global Change Biology, 2020, 26, 6474-6492.	9.5	13
11	Harmonised global datasets of wind and solar farm locations and power. Scientific Data, 2020, 7, 130.	5.3	69
12	Innovative breeding technologies in lettuce for improved post-harvest quality. Postharvest Biology and Technology, 2020, 168, 111266.	6.0	25
13	Bioenergy with Carbon Capture and Storage (BECCS): Finding the winâ€“wins for energy, negative emissions and ecosystem servicesâ€”size matters. GCB Bioenergy, 2020, 12, 586-604.	5.6	41
14	Single primer enrichment technology as a tool for massive genotyping: a benchmark on black poplar and maize. Annals of Botany, 2019, 124, 543-551.	2.9	46
15	The influence of the global electric power system on terrestrial biodiversity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26078-26084.	7.1	27
16	FACE facts hold for multiple generations; Evidence from natural CO₂ springs. Global Change Biology, 2019, 25, 1-11.	9.5	67
17	Characterization of phenology, physiology, morphology and biomass traits across a broad Euroâ€Mediterranean ecotypic panel of the lignocellulosic feedstock <i>Arundo donax</i>. GCB Bioenergy, 2019, 11, 152-170.	5.6	21
18	Breeding progress and preparedness for massâ€scale deployment of perennial lignocellulosic biomass crops switchgrass, miscanthus, willow and poplar. GCB Bioenergy, 2019, 11, 118-151.	5.6	116

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19	Do energy scenarios pay sufficient attention to the environment? Lessons from the UK to support improved policy outcomes. Energy Policy, 2018, 115, 397-408.	8.8	17
20	Biogenic Carbonâ€"Capture and Sequestration. , 2018, , 55-76.		6
21	Grassland futures in Great Britain â€" Productivity assessment and scenarios for land use change opportunities. Science of the Total Environment, 2018, 634, 1108-1118.	8.0	36
22	Incorporating ecosystem services into the design of future energy systems. Applied Energy, 2018, 222, 812-822.	10.1	22
23	Genes and gene clusters related to genotype and drought-induced variation in saccharification potential, lignin content and wood anatomical traits in Populus nigraâ€. Tree Physiology, 2018, 38, 320-339.	3.1	35
24	The potential to improve culinary herb crop quality with deficit irrigation. Scientia Horticulturae, 2018, 242, 44-50.	3.6	7
25	Landâ€use change to bioenergy: grassland to short rotation coppice willow has an improved carbon balance. GCB Bioenergy, 2017, 9, 469-484.	5.6	27
26	Highâ€resolution spatial modelling of greenhouse gas emissions from landâ€use change to energy crops in the United Kingdom. GCB Bioenergy, 2017, 9, 627-644.	5.6	47
27	Biochar alters the soil microbiome and soil function: results of nextâ€generation amplicon sequencing across Europe. GCB Bioenergy, 2017, 9, 591-612.	5.6	126
28	Potential impacts on ecosystem services of land use transitions to secondâ€generation bioenergy crops in <scp>GB</scp>. GCB Bioenergy, 2016, 8, 317-333.	5.6	56
29	Implementing land-use and ecosystem service effects into an integrated bioenergy value chain optimisation framework. Computers and Chemical Engineering, 2016, 91, 392-406.	3.8	30
30	Plant adaptation or acclimation to rising CO₂? Insight from first multigenerational RNAâ€Seq transcriptome. Global Change Biology, 2016, 22, 3760-3773.	9.5	47
31	Characterization of the Poplar Pan-Genome by Genome-Wide Identification of Structural Variation. Molecular Biology and Evolution, 2016, 33, 2706-2719.	8.9	95
32	Adaptive mechanisms and genomic plasticity for drought tolerance identified in European black poplar (<i>Populus nigra</i>L.). Tree Physiology, 2016, 36, 909-928.	3.1	56
33	Biomass traits and candidate genes for bioenergy revealed through association genetics in coppiced European Populus nigra (L.). Biotechnology for Biofuels, 2016, 9, 195.	6.2	36
34	Characterization of the watercress (Nasturtium officinale R. Br.; Brassicaceae) transcriptome using RNASeq and identification of candidate genes for important phytonutrient traits linked to human health. BMC Genomics, 2016, 17, 378.	2.8	33
35	Bridging the gap between energy and the environment. Energy Policy, 2016, 92, 181-189.	8.8	26
36	Molecular Breeding for Improved Second Generation Bioenergy Crops. Trends in Plant Science, 2016, 21, 43-54.	8.8	78

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37	Simulation of greenhouse gases following landâ€use change to bioenergy crops using the <scp>ECOSSE</scp> model: aÂcomparison between site measurements and model predictions. GCB Bioenergy, 2016, 8, 925-940.	5.6	19
38	Biochar mineralization and priming effect on <scp>SOM</scp> decomposition in two European short rotation coppices. GCB Bioenergy, 2015, 7, 1150-1160.	5.6	66
39	Genetic and morphological differentiation in <i><scp>P</scp>opulus nigra</i> L.: isolation by colonization or isolation by adaptation?. Molecular Ecology, 2015, 24, 2641-2655.	3.9	46
40	Elucidating the genetic basis of antioxidant status in lettuce (Lactuca sativa). Horticulture Research, 2015, 2, 15055.	6.3	27
41	Diversity in global gene expression and morphology across a watercress (Nasturtium officinale R. Br.) germplasm collection: first steps to breeding. Horticulture Research, 2015, 2, 15029.	6.3	14
42	Water use and yield of bioenergy poplar in future climates: modelling the interactive effects of elevated atmospheric <scp>CO</scp>₂ and climate on productivity and water use. GCB Bioenergy, 2015, 7, 958-973.	5.6	3
43	Global impacts of energy demand on the freshwater resources of nations. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E6707-16.	7.1	98
44	Land use change to bioenergy: A meta-analysis of soil carbon and GHG emissions. Biomass and Bioenergy, 2015, 82, 27-39.	5.7	135
45	More plant growth but less plant defence? First global gene expression data for plants grown in soil amended with biochar. GCB Bioenergy, 2015, 7, 658-672.	5.6	135
46	Bioenergy, Food Production and Biodiversity â€" An Unlikely Alliance?. GCB Bioenergy, 2015, 7, 570-576.	5.6	70
47	The technical potential of <scp>G</scp>reat <scp>B</scp>ritain to produce lignoâ€cellulosic biomass for bioenergy in current and future climates. GCB Bioenergy, 2014, 6, 108-122.	5.6	64
48	Estimating UK perennial energy crop supply using farmâ€scale models with spatially disaggregated data. GCB Bioenergy, 2014, 6, 142-155.	5.6	27
49	The potential for bioenergy crops to contribute to meeting GB heat and electricity demands. GCB Bioenergy, 2014, 6, 136-141.	5.6	29
50	Research Spotlight: The ELUM project: Ecosystem Land-Use Modeling and Soil Carbon GHG Flux Trial. Biofuels, 2014, 5, 111-116.	2.4	7
51	Significant Contribution of Energy Crops to Heat and Electricity Needs in Great Britain to 2050. Bioenergy Research, 2014, 7, 919-926.	3.9	2
52	Spatial mapping of Great Britain's bioenergy to 2050. GCB Bioenergy, 2014, 6, 97-98.	5.6	4
53	Development and evaluation of ForestGrowthâ€<scp>SRC</scp> a processâ€based model for short rotation coppice yield and spatial supply reveals poplar uses water more efficiently than willow. GCB Bioenergy, 2013, 5, 53-66.	5.6	51
54	Toward improved drought tolerance in bioenergy crops: <scp>QTL</scp> for carbon isotope composition and stomatal conductance in <i><scp>P</scp>opulus</i>. Food and Energy Security, 2013, 2, 220-236.	4.3	14

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55	Antioxidant assays â€“ consistent findings from <scp>FRAP</scp> and <scp>ORAC</scp> reveal a negative impact of organic cultivation on antioxidant potential in spinach but not watercress or rocket leaves. Food Science and Nutrition, 2013, 1, 439-444.	3.4	67
56	Evaluating ecosystem processes in willow short rotation coppice bioenergy plantations. GCB Bioenergy, 2013, 5, 257-266.	5.6	36
57	Insight into the Genetic Components of Community Genetics: QTL Mapping of Insect Association in a Fast-Growing Forest Tree. PLoS ONE, 2013, 8, e79925.	2.5	18
58	Assessing the impact of internal conductance to CO2 in a land-surface scheme: Measurement and modelling of photosynthesis in Populus nigra. Agricultural and Forest Meteorology, 2012, 152, 240-251.	4.8	6
59	A transcriptomic approach to identify genes associated with wood density inPicea sitchensis. Scandinavian Journal of Forest Research, 2011, 26, 82-96.	1.4	5
60	Counting the cost of carbon in bioenergy systems: sources of variation and hidden pitfalls when comparing life cycle assessments. Biofuels, 2011, 2, 693-707.	2.4	17
61	Estimating the removal of atmospheric particulate pollution by the urban tree canopy of London, under current and future environments. Landscape and Urban Planning, 2011, 103, 129-138.	7.5	365
62	Molecular features of secondary vascular tissue regeneration after bark girdling in <i>Populus</i>. New Phytologist, 2011, 192, 869-884.	7.3	43
63	The physiological, transcriptional and genetic responses of an ozone- sensitive and an ozone tolerant poplar and selected extremes of their F 2 progeny. Environmental Pollution, 2011, 159, 45-54.	7.5	32
64	FTIR-ATR-based prediction and modelling of lignin and energy contents reveals independent intra-specific variation of these traits in bioenergy poplars. Plant Methods, 2011, 7, 9.	4.3	112
65	Potential benefits of commercial willow Short Rotation Coppice (SRC) for farm-scale plant and invertebrate communities in the agri-environment. Biomass and Bioenergy, 2011, 35, 325-336.	5.7	79
66	Estimating the supply of biomass from short-rotation coppice in England, given social, economic and environmental constraints to land availability. Biofuels, 2010, 1, 719-727.	2.4	37
67	Modification of cell wall properties in lettuce improves shelf life. Journal of Experimental Botany, 2010, 61, 1239-1248.	4.8	28
68	Challenges in elevated CO2 experiments on forests. Trends in Plant Science, 2010, 15, 5-10.	8.8	46
69	Plasticity of growth and biomass production of an intraspecific Populus alba family grown at three sites across Europe during three growing seasons. Canadian Journal of Forest Research, 2010, 40, 1887-1903.	1.7	13
70	Five QTL hotspots for yield in short rotation coppice bioenergy poplar: The Poplar Biomass Loci. BMC Plant Biology, 2009, 9, 23.	3.6	68
71	How can accelerated development of bioenergy contribute to the future UK energy mix? Insights from a MARKAL modelling exercise. Biotechnology for Biofuels, 2009, 2, 13.	6.2	16
72	Water use of a bioenergy plantation increases in a future high CO2 world. Biomass and Bioenergy, 2009, 33, 200-208.	5.7	52

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73	Identifying potential environmental impacts of large-scale deployment of dedicated bioenergy crops in the UK. Renewable and Sustainable Energy Reviews, 2009, 13, 271-290.	16.4	358
74	Second generation bioenergy crops and climate change: a review of the effects of elevated atmospheric CO₂ and drought on water use and the implications for yield. GCB Bioenergy, 2009, 1, 97-114.	5.6	98
75	Greenhouse gas emissions from four bioenergy crops in England and Wales: Integrating spatial estimates of yield and soil carbon balance in life cycle analyses. GCB Bioenergy, 2009, 1, 267-281.	5.6	146
76	Biofuels and the biorefinery concept. Energy Policy, 2008, 36, 4406-4409.	8.8	173
77	Bioenergy for heat and electricity in the UK: A research atlas and roadmap. Energy Policy, 2008, 36, 4383-4389.	8.8	18
78	Yield and spatial supply of bioenergy poplar and willow shortâ€rotation coppice in the UK. New Phytologist, 2008, 178, 358-370.	7.3	252
79	Future atmospheric CO₂ leads to delayed autumnal senescence. Global Change Biology, 2008, 14, 264-275.	9.5	95
80	QTLs for shelf life in lettuce co-locate with those for leaf biophysical properties but not with those for leaf developmental traits. Journal of Experimental Botany, 2007, 58, 1433-1449.	4.8	44
81	Effects of environment and progeny on biomass estimations of five hybrid poplar families grown at three contrasting sites across Europe. Forest Ecology and Management, 2007, 252, 12-23.	3.2	49
82	Adaptation of tree growth to elevated CO 2 : quantitative trait loci for biomass in Populus. New Phytologist, 2007, 175, 59-69.	7.3	47
83	Characterisation of cell death in bagged baby salad leaves. Postharvest Biology and Technology, 2007, 46, 150-159.	6.0	24
84	QTL for yield in bioenergy Populus: identifying GÃ—E interactions from growth at three contrasting sites. Tree Genetics and Genomes, 2007, 4, 97-112.	1.6	71
85	Elucidating genomic regions determining enhanced leaf growth and delayed senescence in elevated CO2. Plant, Cell and Environment, 2006, 29, 1730-1741.	5.7	57
86	The genetics and genomics of the drought response inPopulus. Plant Journal, 2006, 48, 321-341.	5.7	216
87	Woody biomass production during the second rotation of a bio-energy Populus plantation increases in a future high CO2 world. Global Change Biology, 2006, 12, 1094-1106.	9.5	115
88	Energy crops: current status and future prospects. Global Change Biology, 2006, 12, 2054-2076.	9.5	351
89	Plasticity of growth and sylleptic branchiness in two poplar families grown at three sites across Europe. Tree Physiology, 2006, 26, 935-946.	3.1	41
90	The transcriptome of Populus in elevated CO2. New Phytologist, 2005, 167, 143-154.	7.3	88

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91	Stomatal conductance and not stomatal density determines the long-term reduction in leaf transpiration of poplar in elevated CO2. Oecologia, 2005, 143, 652-660.	2.0	80
92	Deposition velocities to Sorbus aria, Acer campestre, Populus deltoides Ã— trichocarpa â€˜BeauprÃ©â€™, Pinus nigra and Ã— Cupressocyparis leylandii for coarse, fine and ultra-fine particles in the urban environment. Environmental Pollution, 2005, 133, 157-167.	7.5	290
93	Elevated CO2 protects poplar (Populus trichocarpa Ã— P. deltoides) from damage induced by O3: identification of mechanisms. Functional Plant Biology, 2005, 32, 221.	2.1	11
94	End of Day Harvest Extends Shelf Life. Hortscience: A Publication of the American Society for Hortcultural Science, 2005, 40, 1431-1435.	1.0	39
95	Longâ€term acclimation of leaf production, development, longevity and quality following 3Âyr exposure to freeâ€air CO 2 enrichment during canopy closure in Populus. New Phytologist, 2004, 162, 413-426.	7.3	44
96	Species-level effects more important than functional group-level responses to elevated CO2: evidence from simulated turves. Functional Ecology, 2004, 18, 304-313.	3.6	26
97	Capture of Particulate Pollution by Trees: A Comparison of Species Typical of Semi-Arid Areas (Ficus) Tj ETQq1 1 0.784314 rgBT /Overlo Pollution, 2004, 155, 173-187.	2.4	207
98	Defining leaf traits linked to yield in short-rotation coppice Salix. Biomass and Bioenergy, 2004, 26, 417-431.	5.7	39
99	Identifying traits to improve postharvest processability in baby leaf salad. Postharvest Biology and Technology, 2003, 30, 287-298.	6.0	48
100	Spatial and Temporal Effects of Free-Air CO2Enrichment (POPFACE) on Leaf Growth, Cell Expansion, and Cell Production in a Closed Canopy of Poplar. Plant Physiology, 2003, 131, 177-185.	4.8	96
101	Leaf stomatal and epidermal cell development: identification of putative quantitative trait loci in relation to elevated carbon dioxide concentration in poplar. Tree Physiology, 2002, 22, 633-640.	3.1	79
102	Populus: Arabidopsis for Forestry. Do We Need a Model Tree?. Annals of Botany, 2002, 90, 681-689.	2.9	340
103	Increased leaf area expansion of hybrid poplar in elevated CO2. From controlled environments to open-top chambers and to FACE. Environmental Pollution, 2001, 115, 463-472.	7.5	42
104	Particulate pollution capture by urban trees: effect of species and windspeed. Global Change Biology, 2000, 6, 995-1003.	9.5	399
105	Elevated CO 2 and tree root growth: contrasting responses in Fraxinus excelsior , Quercus petraea and Pinus sylvestris. New Phytologist, 1998, 138, 241-250.	7.3	58
106	Biomass and compositional changes occur in chalk grassland turves exposed to elevated CO2for two seasons in FACE. Global Change Biology, 1998, 4, 375-385.	9.5	46
107	Elevated atmospheric CO2increases fine root production, respiration, rhizosphere respiration and soil CO2efflux in Scots pine seedlings. Global Change Biology, 1998, 4, 871-878.	9.5	96
108	Additive and antagonistic effects of ozone and salinity on the growth, ion contents and gas exchange of five varieties of rice (Oryza sativa L.). Environmental Pollution, 1996, 92, 257-266.	7.5	37

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109	Mechanism for increased leaf growth in elevated CO2. Journal of Experimental Botany, 1996, 47, 349-358.	4.8	54
110	Contrasting effects of tropospheric ozone on five native herbs which coexist in calcareous grassland. Global Change Biology, 1995, 1, 143-151.	9.5	34
111	Leaf growth of hybrid poplar following exposure to elevated CO 2. New Phytologist, 1995, 131, 81-90.	7.3	47
112	Contrasting effects of elevated CO 2 and water deficit on two native herbs. New Phytologist, 1995, 131, 491-501.	7.3	18
113	Elevated CO2 and plant growth: cellular mechanisms and responses of whole plants. Journal of Experimental Botany, 1994, 45, 1761-1774.	4.8	96
114	Increased root growth in elevated CO2: a biophysical analysis of root cell elongation. Journal of Experimental Botany, 1994, 45, 1603-1612.	4.8	35
115	Elevated CO 2 , water relations and biophysics of leaf extension in four chalk grassland herbs. New Phytologist, 1994, 127, 297-307.	7.3	44
116	Contrasting effects of elevated CO 2 on the root and shoot growth of four native herbs commonly found in chalk grassland. New Phytologist, 1993, 125, 855-866.	7.3	45
117	Nitrate Supply and the Biophysics of Leaf Growth inSalix viminalis. Journal of Experimental Botany, 1993, 44, 155-164.	4.8	44
118	Impact of gaseous air pollution on leaf growth of hybrid poplar. Forest Ecology and Management, 1992, 51, 151-162.	3.2	12
119	Comparative evaluation of the effects of gaseous pollutants, acidic deposition and mineral deficiencies on gas exchange of trees. Agriculture, Ecosystems and Environment, 1992, 42, 321-332.	5.3	9
120	Biophysics of leaf growth of hybrid poplar: impact of ozone. New Phytologist, 1991, 118, 407-415.	7.3	11
121	Root growth of Fagus sylvatica : impact of air quality and drought at a site in southern Britain. New Phytologist, 1990, 116, 457-464.	7.3	26
122	The control of ozone uptake by Picea abies (L.) Karst. and P. sitchensis (Bong.) Carr. during drought and interacting effects on shoot water relations. New Phytologist, 1990, 116, 465-474.	7.3	54
123	Photosynthetic characteristics, stomatal responses and water relations of Fagus sylvatica : impact of air quality at a site in southern Britain. New Phytologist, 1989, 113, 265-273.	7.3	37
124	The influence of photosynthetically-active radiation and simulated shadelight on the control of leaf growth of Betula and Acer. New Phytologist, 1988, 108, 393-398.	7.3	13
125	Leaf growth of Betula and Acer in simulated shadelight. Oecologia, 1986, 69, 589-593.	2.0	13
126	YIELD TURGOR OF GROWING LEAVES OF BETULA AND ACER. New Phytologist, 1986, 104, 347-353.	7.3	28

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127	THE CONTROL OF LEAF GROWTH OF BETULA AND ACER BY PHOTOENVIRONMENT. New Phytologist, 1985, 101, 259-268.	7.3	39