Carl J Douglas

List of Publications by Year
in descending order

92 papers	9,435 citations	30070 54 h-index	42399 92 g-index
94 all docs	94 docs citations	94 times ranked	9728 citing authors

#	Article	IF	Citations
1	Populus: A Model System for Plant Biology. Annual Review of Plant Biology, 2007, 58, 435-458.	18.7	549
2	A heterozygous moth genome provides insights into herbivory and detoxification. Nature Genetics, 2013, 45, 220-225.	21.4	472
3	Three 4-coumarate:coenzyme A ligases in Arabidopsis thaliana represent two evolutionarily divergent classes in angiosperms. Plant Journal, 1999, 19, 9-20.	5.7	402
4	Phenylpropanoid metabolism and lignin biosynthesis: from weeds to trees. Trends in Plant Science, 1996, 1, 171-178.	8.8	299
5	A Novel Fatty Acyl-CoA Synthetase Is Required for Pollen Development and Sporopollenin Biosynthesis in<i>Arabidopsis</i>Â Â. Plant Cell, 2009, 21, 507-525.	6.6	257
6	Global transcript profiling of primary stems from Arabidopsis thaliana identifies candidate genes for missing links in lignin biosynthesis and transcriptional regulators of fiber differentiation. Plant Journal, 2005, 42, 618-640.	5.7	254
7	Conifer defence against insects: microarray gene expression profiling of Sitka spruce (Picea) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T transcriptome. Plant, Cell and Environment, 2006, 29, 1545-1570.	5.7	221
8	The biosynthesis, composition and assembly of the outer pollen wall: A tough case to crack. Phytochemistry, 2015, 113, 170-182.	2.9	194
9	<i>LAP6/POLYKETIDE SYNTHASE A</i>and<i>LAP5/POLYKETIDE SYNTHASE B</i>Encode Hydroxyalkyl Î±-Pyrone Synthases Required for Pollen Development and Sporopollenin Biosynthesis in<i>Arabidopsis thaliana</i>Â Â Â. Plant Cell, 2011, 22, 4045-4066.	6.6	188
10	The Class II <i>KNOX</i> gene <i>KNAT7</i> negatively regulates secondary wall formation in <i>Arabidopsis</i> and is functionally conserved in <i>Populus</i>. New Phytologist, 2012, 194, 102-115.	7.3	186
11	Geographical and environmental gradients shape phenotypic trait variation and genetic structure in <i><scp>P</scp>opulus trichocarpa</i>. New Phytologist, 2014, 201, 1263-1276.	7.3	185
12	Genomics of hybrid poplar (Populus trichocarpaÃ— deltoides) interacting with forest tent caterpillars (Malacosoma disstria): normalized and full-length cDNA libraries, expressed sequence tags, and a cDNA microarray for the study of insect-induced defences. Molecular Ecology, 2006, 15, 1275-1297.	3.9	183
13	Robust simple sequence repeat markers for spruce (Picea spp.) from expressed sequence tags. Theoretical and Applied Genetics, 2004, 109, 1283-1294.	3.6	181
14	Analysis of <i>TETRAKETIDE Î±-PYRONE REDUCTASE</i> Function in <i>Arabidopsis thaliana</i> Reveals a Previously Unknown, but Conserved, Biochemical Pathway in Sporopollenin Monomer Biosynthesis Â. Plant Cell, 2011, 22, 4067-4083.	6.6	181
15	Genome structure and emerging evidence of an incipient sex chromosome in <i>Populus</i>. Genome Research, 2008, 18, 422-430.	5.5	177
16	MYB75 Functions in Regulation of Secondary Cell Wall Formation in the Arabidopsis Inflorescence Stem. Plant Physiology, 2010, 154, 1428-1438.	4.8	174
17	Genome resequencing reveals multiscale geographic structure and extensive linkage disequilibrium in the forest tree <i>Populus trichocarpa</i>. New Phytologist, 2012, 196, 713-725.	7.3	173
18	Genomeâ€wide association implicates numerous genes underlying ecological trait variation in natural populations of <i>Populus trichocarpa</i>. New Phytologist, 2014, 203, 535-553.	7.3	171

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19	Proteome analysis of early somatic embryogenesis inPicea glauca. Proteomics, 2005, 5, 461-473.	2.2	166
20	ATP-Binding Cassette Transporter G26 Is Required for Male Fertility and Pollen Exine Formation in Arabidopsis Â Â. Plant Physiology, 2010, 154, 678-690.	4.8	161
21	Genomeâ€wide association mapping for wood characteristics in <i><scp>P</scp>opulus</i> identifies an array of candidate single nucleotide polymorphisms. New Phytologist, 2013, 200, 710-726.	7.3	158
22	Primary structures and catalytic properties of isoenzymes encoded by the two 4-coumarate: CoA ligase genes in parsley. FEBS Journal, 1988, 176, 661-667.	0.2	155
23	OVATE FAMILY PROTEIN4 (OFP4) interaction with KNAT7 regulates secondary cell wall formation in <i>Arabidopsis thaliana</i>. Plant Journal, 2011, 67, 328-341.	5.7	151
24	Isolation of high-quality RNA from gymnosperm and angiosperm trees. BioTechniques, 2004, 36, 821-824.	1.8	148
25	Use of Ecotilling as an efficient SNP discovery tool to survey genetic variation in wild populations of Populus trichocarpa. Molecular Ecology, 2006, 15, 1367-1378.	3.9	140
26	The Arabidopsis thaliana 4-coumarate:CoA ligase (4CL) gene: stress and developmentally regulated expression and nucleotide sequence of its cDNA. Plant Molecular Biology, 1995, 28, 871-884.	3.9	135
27	Genome-wide analyses of phenylpropanoid-related genes in Populus trichocarpa, Arabidopsis thaliana, and Oryza sativa: the Populus lignin toolbox and conservation and diversification of angiosperm gene familiesThis article is one of a selection of papers published in the Special Issue on Poplar Research in Canada.. Canadian Journal of Botany, 2007, 85, 1182-1201.	1.1	132
28	<i>At</i>MYB61, an R2R3â€MYB transcription factor, functions as a pleiotropic regulator via a small gene network. New Phytologist, 2012, 195, 774-786.	7.3	132
29	BEL1-LIKE HOMEODOMAIN6 and KNOTTED ARABIDOPSIS THALIANA7 Interact and Regulate Secondary Cell Wall Formation via Repression of <i>REVOLUTA</i> Â Â. Plant Cell, 2015, 26, 4843-4861.	6.6	124
30	Functional Characterization and Subcellular Localization of Poplar (Populus trichocarpa Ã— Populus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	4.8	123
31	New views of tapetum ultrastructure and pollen exine development in Arabidopsis thaliana. Annals of Botany, 2014, 114, 1189-1201.	2.9	117
32	4-Coumarate:Coenzyme A Ligase in Hybrid Poplar1. Plant Physiology, 1998, 116, 743-754.	4.8	116
33	Reconstitution of the Entry Point of Plant Phenylpropanoid Metabolism in Yeast (Saccharomyces) Tj ETQq1 1 0.784314 rgBT /Overlock	3.4	112
34	Syringyl-Rich Lignin Renders Poplars More Resistant to Degradation by Wood Decay Fungi. Applied and Environmental Microbiology, 2013, 79, 2560-2571.	3.1	108
35	High-resolution genetic mapping of allelic variants associated with cell wall chemistry in Populus. BMC Genomics, 2015, 16, 24.	2.8	106
36	Regulation of secondary cell wall biosynthesis by poplar R2R3 MYB transcription factor PtrMYB152 in Arabidopsis. Scientific Reports, 2014, 4, 5054.	3.3	106

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37	Whole plastome sequencing reveals deep plastid divergence and cytonuclear discordance between closely related balsam poplars, <i><scp>P</scp>opulus balsamifera</i> and <i><scp>P</scp>.Âtrichocarpa</i> (<scp>S</scp>alicaceae). New Phytologist, 2014, 204, 693-703.	7.3	105
38	SNP discovery in black cottonwood (<i>Populus trichocarpa</i>) by population transcriptome resequencing. Molecular Ecology Resources, 2011, 11, 81-92.	4.8	104
39	Cloning, Functional Expression, and Subcellular Localization of Multiple NADPH-Cytochrome P450 Reductases from Hybrid Poplar. Plant Physiology, 2002, 130, 1837-1851.	4.8	102
40	<i><scp>P</scp>opulus trichocarpa</i> cell wall chemistry and ultrastructure trait variation, genetic control and genetic correlations. New Phytologist, 2013, 197, 777-790.	7.3	100
41	Gene expression patterns underlying changes in xylem structure and function in response to increased nitrogen availability in hybrid poplar. Plant, Cell and Environment, 2013, 36, 186-199.	5.7	98
42	Combinatorial interactions between positive and negative cis-acting elements control spatial patterns of 4CL-1 expression in transgenic tobacco. Plant Journal, 1993, 4, 235-253.	5.7	91
43	LANDSCAPE GENOMICS OF <i>POPULUS TRICHOCARPA</i> : THE ROLE OF HYBRIDIZATION, LIMITED GENE FLOW, AND NATURAL SELECTION IN SHAPING PATTERNS OF POPULATION STRUCTURE. Evolution; International Journal of Organic Evolution, 2014, 68, 3260-3280.	2.3	88
44	SNP discovery, gene diversity, and linkage disequilibrium in wild populations of Populus tremuloides. Tree Genetics and Genomes, 2012, 8, 821-829.	1.6	86
45	Genomic and functional approaches reveal a case of adaptive introgression from <i>Populus balsamifera</i> (balsam poplar) in <i>P</i>.Â<i>trichocarpa</i> (black cottonwood). Molecular Ecology, 2016, 25, 2427-2442.	3.9	85
46	ABCG26-Mediated Polyketide Trafficking and Hydroxycinnamoyl Spermidines Contribute to Pollen Wall Exine Formation in <i>Arabidopsis</i> Â. Plant Cell, 2014, 26, 4483-4498.	6.6	84
47	Multiple cis-regulatory elements regulate distinct and complex patterns of developmental and wound-induced expression of Arabidopsis thaliana 4CL gene family members. Planta, 2006, 224, 1226-1238.	3.2	79
48	Chromoplasts ultrastructure and estimated carotene content in root secondary phloem of different carrot varieties. Planta, 2010, 231, 549-558.	3.2	78
49	The interacting MYB75 and KNAT7 transcription factors modulate secondary cell wall deposition both in stems and seed coat in Arabidopsis. Planta, 2013, 237, 1199-1211.	3.2	78
50	Genomeâ€wide analysis of a land plantâ€specific <i>acyl:coenzymeA synthetase</i> (<i>ACS</i>) gene family in <i>Arabidopsis</i>, poplar, rice and <i>Physcomitrella</i>. New Phytologist, 2008, 179, 987-1003.	7.3	72
51	A physical map of the highly heterozygous Populus genome: integration with the genome sequence and genetic map and analysis of haplotype variation. Plant Journal, 2007, 50, 1063-1078.	5.7	70
52	Analysis of 4,664 high-quality sequence-finished poplar full-length cDNA clones and their utility for the discovery of genes responding to insect feeding. BMC Genomics, 2008, 9, 57.	2.8	68
53	Antagonistic Interaction of BLADE-ON-PETIOLE1 and 2 with BREVIPEDICELLUS and PENNYWISE Regulates Arabidopsis Inflorescence Architecture Â Â Â. Plant Physiology, 2012, 158, 946-960.	4.8	65
54	Identification of 4-coumarate:coenzyme A ligase (4CL) substrate recognition domains. Plant Journal, 2001, 27, 455-465.	5.7	61

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55	Sexual epigenetics: gender-specific methylation of a gene in the sex determining region of Populus balsamifera. Scientific Reports, 2017, 7, 45388.	3.3	59
56	Molecular signals in the interactions between plants and microbes. Cell, 1992, 71, 191-199.	28.9	54
57	Sexual homomorphism in dioecious trees: extensive tests fail to detect sexual dimorphism in Populus. Scientific Reports, 2017, 7, 1831.	3.3	54
58	Over-expression of Arabidopsis thaliana carotenoid hydroxylases individually and in combination with a Î^{2}-carotene ketolase provides insight into in vivo functions. Phytochemistry, 2010, 71, 168-178.	2.9	53
59	Developmentally regulated patterns of expression directed by poplar PAL promoters in transgenic tobacco and poplar. Plant Molecular Biology, 1999, 39, 657-669.	3.9	51
60	A role for OVATE FAMILY PROTEIN1 (OFP1) and OFP4 in a BLH6-KNAT7 multi-protein complex regulating secondary cell wall formation in Arabidopsis thaliana. Plant Signaling and Behavior, 2015, 10, e1033126.	2.4	50
61	PpASCL, a moss ortholog of antherâ€specific chalcone synthaseâ€like enzymes, is a hydroxyalkylpyrone synthase involved in an evolutionarily conserved sporopollenin biosynthesis pathway. New Phytologist, 2011, 192, 855-868.	7.3	48
62	Comparative interrogation of the developing xylem transcriptomes of two woodâ€forming species: <i><scp>P</scp>opulus trichocarpa</i> and <i><scp>E</scp>ucalyptus grandis</i>. New Phytologist, 2015, 206, 1391-1405.	7.3	47
63	Microarray gene expression profiling of developmental transitions in Sitka spruce (Picea sitchensis) apical shoots. Journal of Experimental Botany, 2007, 58, 593-614.	4.8	44
64	Role of Glycosyltransferases in Pollen Wall Primexine Formation and Exine Patterning. Plant Physiology, 2017, 173, 167-182.	4.8	44
65	Rapid Activation of Phenylpropanoid Metabolism in Elicitor-Treated Hybrid Poplar (<i>Populus) Tj ETQq1 1 0.784314 rgBT /Overlock 1 Physiology, 1992, 98, 728-737.	4.8	39
66	Network analysis reveals the relationship among wood properties, gene expression levels and genotypes of natural P opulus trichocarpa accessions. New Phytologist, 2013, 200, 727-742.	7.3	37
67	Isolation, identification and cyfluthrin-degrading potential of a novel Lysinibacillus sphaericus strain, FLQ-11-1. Research in Microbiology, 2014, 165, 110-118.	2.1	37
68	Sporopollenin monomer biosynthesis in arabidopsis. Journal of Plant Biology, 2013, 56, 1-6.	2.1	36
69	Introgression from <i>Populus balsamifera</i> underlies adaptively significant variation and range boundaries in <i>P.Âtrichocarpa</i>. New Phytologist, 2018, 217, 416-427.	7.3	36
70	Gene Expression Patterns of Wood Decay Fungi Postia placenta and Phanerochaete chrysosporium Are Influenced by Wood Substrate Composition during Degradation. Applied and Environmental Microbiology, 2016, 82, 4387-4400.	3.1	35
71	Flagella-specific bacteriophages of Agrobacterium tumefaciens: demonstration of virulence of nonmotile mutants. Canadian Journal of Microbiology, 1984, 30, 676-681.	1.7	31
72	Evolutionary Quantitative Genomics of Populus trichocarpa. PLoS ONE, 2015, 10, e0142864.	2.5	31

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73	Association Analysis Identifies Melampsora Ã—columbiana Poplar Leaf Rust Resistance SNPs. PLoS ONE, 2013, 8, e78423.	2.5	31
74	R2R3 MYB transcription factor PtrMYB192 regulates flowering time in Arabidopsis by activating FLOWERING LOCUS C. Journal of Plant Biology, 2013, 56, 243-250.	2.1	27
75	Functional network analysis of genes differentially expressed during xylogenesis in <i>soc1ful</i> woody Arabidopsis plants. Plant Journal, 2016, 86, 376-390.	5.7	27
76	Scale and direction of adaptive introgression between black cottonwood (<i>Populus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622 Td (tric	3.9	25
77	Comparative analysis of plant carbohydrate active enZymes and their role in xylogenesis. BMC Genomics, 2015, 16, 402.	2.8	23
78	Overexpression of AtGolS3 and CsRFS in poplar enhances ROS tolerance and represses defense response to leaf rust disease. Tree Physiology, 2018, 38, 457-470.	3.1	23
79	A novel parsley 4CL1 cis-element is required for developmentally regulated expression and protein-DNA complex formation. Plant Journal, 1999, 18, 77-88.	5.7	21
80	Arabidopsis thaliana Full Genome Longmer Microarrays: A Powerful Gene Discovery Tool for Agriculture and Forestry. Transgenic Research, 2005, 14, 551-561.	2.4	19
81	<i>Populus trichocarpa MONOPTEROS/AUXIN RESPONSE FACTOR5</i>(<i>ARF5</i>) genes: comparative structure, sub-functionalization, and<i>Populus</i>â€“<i>Arabidopsis</i>microsyntenyThis article is one of a selection of papers published in the Special Issue on Poplar Research in Canada.. Canadian Journal of Botany, 2007, 85, 1058-1070.	1.1	18
82	Factors Affecting Crown Gall Tumorigenesis in Tuber Slices of Jerusalem Artichoke (Helianthus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 383	4.8	17
83	Extensive Functional Pleiotropy of REVOLUTA Substantiated through Forward Genetics Â Â. Plant Physiology, 2014, 164, 548-554.	4.8	17
84	A Parsley 4CL-1 Promoter Fragment Specifies Complex Expression Patterns in Transgenic Tobacco. Plant Cell, 1991, 3, 435.	6.6	15
85	Spatially and temporally restricted expression of PtrMYB021 regulates secondary cell wall formation in Arabidopsis. Journal of Plant Biology, 2016, 59, 16-23.	2.1	9
86	Arabidopsis VASCULAR-RELATED UNKNOWN PROTEIN1 Regulates Xylem Development and Growth by a Conserved Mechanism That Modulates Hormone Signaling Â Â. Plant Physiology, 2014, 164, 1991-2010.	4.8	5
87	Populus as a Model Tree. Plant Genetics and Genomics: Crops and Models, 2017, , 61-84.	0.3	5
88	Early detection of octopine in crown-gall tumors of Jerusalem artichoke. Plant Science Letters, 1979, 15, 89-99.	1.8	4
89	Genetic differentiation of the regional Plutella xylostella populations across the Taiwan Strait based on identification of microsatellite markers. Ecology and Evolution, 2015, 5, 5880-5891.	1.9	3
90	Manipulating lignin deposition. Canadian Journal of Plant Science, 2014, 94, 1043-1049.	0.9	2

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91	Editorial: Plant biotechnology: Thoughts on the current scene. Biotechnology Journal, 2006, 1, 1041-1042.	3.5	0
92	Abaxial Greening Phenotype in Hybrid Aspen. Plants, 2013, 2, 279-301.	3.5	0