John K Mckay

List of Publications by Year
in descending order

74 papers	9,770 citations	87888 38 h-index	85541 71 g-index
79 all docs	79 docs citations	79 times ranked	12719 citing authors

#	Article	IF	Citations
1	Adaptive versus non-adaptive phenotypic plasticity and the potential for contemporary adaptation in new environments. Functional Ecology, 2007, 21, 394-407.	3.6	2,356
2	Harnessing genomics for delineating conservation units. Trends in Ecology and Evolution, 2012, 27, 489-496.	8.7	767
3	Adaptive population divergence: markers, QTL and traits. Trends in Ecology and Evolution, 2002, 17, 285-291.	8.7	674
4	"How Local Is Local?"-A Review of Practical and Conceptual Issues in the Genetics of Restoration. Restoration Ecology, 2005, 13, 432-440.	2.9	626
5	2b-RAD: a simple and flexible method for genome-wide genotyping. Nature Methods, 2012, 9, 808-810.	19.0	607
6	Genomics and the challenging translation into conservation practice. Trends in Ecology and Evolution, 2015, 30, 78-87.	8.7	469
7	Genetics of drought adaptation in Arabidopsis thaliana : I. Pleiotropy contributes to genetic correlations among ecological traits. Molecular Ecology, 2003, 12, 1137-1151.	3.9	357
8	PLASTICITY AND GENETIC DIVERSITY MAY ALLOW SALTCEDAR TO INVADE COLD CLIMATES IN NORTH AMERICA. , 2002, 12, 1652-1660.		233
9	Characterizing genomic variation of Arabidopsis thaliana: the roles of geography and climate. Molecular Ecology, 2012, 21, 5512-5529.	3.9	215
10	Identification and characterization of QTL underlying whole-plant physiology in Arabidopsis thaliana: delta13C, stomatal conductance and transpiration efficiency. Plant, Cell and Environment, 2005, 28, 697-708.	5.7	162
11	Genetic mapping of adaptation reveals fitness tradeoffs in Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 21077-21082.	7.1	157
12	Genetic Costs of Domestication and Improvement. Journal of Heredity, 2018, 109, 103-116.	2.4	149
13	Local adaptation across a climatic gradient despite small effective population size in the rare sapphire rockcress. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 1715-1721.	2.6	137
14	Physiological Genomics of Response to Soil Drying in Diverse Arabidopsis Accessions. Plant Cell, 2012, 24, 893-914.	6.6	137
15	GENETICS OF DROUGHT ADAPTATION INARABIDOPSIS THALIANAII. QTL ANALYSIS OF A NEW MAPPING POPULATION, KAS-1 Ã— TSU-1. Evolution; International Journal of Organic Evolution, 2008, 62, 3014-3026.	2.3	128
16	Pleiotropy of FRIGIDA enhances the potential for multivariate adaptation. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20131043.	2.6	125
17	Natural Variation in Abiotic Stress Responsive Gene Expression and Local Adaptation to Climate in Arabidopsis thaliana. Molecular Biology and Evolution, 2014, 31, 2283-2296.	8.9	125
18	QTL analysis of root morphology, flowering time, and yield reveals trade-offs in response to drought in Brassica napus. Journal of Experimental Botany, 2015, 66, 245-256.	4.8	115

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19	SYNTHESIS: The role of adaptive transâ€generational plasticity in biological invasions of plants. Evolutionary Applications, 2010, 3, 179-192.	3.1	107
20	Direct and indirect selection on flowering time, waterâ€use efficiency (<scp>WUE</scp>,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 Ecology and Evolution, 2014, 4, 4505-4521.	1.9	107
21	Identification of genomic regions involved in resistance against Sclerotinia sclerotiorum from wild Brassica oleracea. Theoretical and Applied Genetics, 2013, 126, 549-556.	3.6	101
22	Genetic Variation in Biomass Traits among 20 Diverse Rice Varieties Â Â. Plant Physiology, 2011, 155, 157-168.	4.8	96
23	Variation in MPK12 affects water use efficiency in Arabidopsis and reveals a pleiotropic link between guard cell size and ABA response. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2836-2841.	7.1	91
24	Multiple origins promote the ecological amplitude of allopolyploid Aegilops (Poaceae). American Journal of Botany, 2009, 96, 1262-1273.	1.7	81
25	Brassicaceae germplasm diversity for agronomic and seed quality traits under drought stress. Industrial Crops and Products, 2013, 47, 176-185.	5.2	74
26	The physiological basis for genetic variation in water use efficiency and carbon isotope composition in Arabidopsis thaliana. Photosynthesis Research, 2014, 119, 119-129.	2.9	74
27	Field-based high throughput phenotyping rapidly identifies genomic regions controlling yield components in rice. Scientific Reports, 2017, 7, 42839.	3.3	74
28	Expression Quantitative Trait Locus Mapping across Water Availability Environments Reveals Contrasting Associations with Genomic Features in Arabidopsis Â Â Â. Plant Cell, 2013, 25, 3266-3279.	6.6	73
29	EXPERIMENTAL VERIFICATION OF ECOLOGICAL NICHE MODELING IN A HETEROGENEOUS ENVIRONMENT. Ecology, 2006, 87, 2433-2439.	3.2	72
30	Molecular and systems approaches towards droughtâ€tolerant canola crops. New Phytologist, 2016, 210, 1169-1189.	7.3	70
31	Molecular Evidence for an Extreme Genetic Bottleneck During Introduction of an Invading Grass to California. Biological Invasions, 2006, 8, 1355-1366.	2.4	64
32	Root traits contributing to drought tolerance of synthetic hexaploid wheat in a greenhouse study. Euphytica, 2016, 207, 213-224.	1.2	64
33	Drought adaptation in Arabidopsis thaliana by extensive genetic loss-of-function. ELife, 2018, 7, .	6.0	63
34	Genetic variation in Arabidopsis thaliana for nightâ€time leaf conductance. Plant, Cell and Environment, 2008, 31, 1170-1178.	5.7	61
35	An integrated framework reinstating the environmental dimension for GWAS and genomic selection in crops. Molecular Plant, 2021, 14, 874-887.	8.3	56
36	Mutation Accumulation in an Asexual Relative of Arabidopsis. PLoS Genetics, 2017, 13, e1006550.	3.5	54

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37	Combining population genomics and fitness QTLs to identify the genetics of local adaptation in Arabidopsis thaliana. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5028-5033.	7.1	53
38	Exploiting Differential Gene Expression and Epistasis to Discover Candidate Genes for Drought-Associated QTLs in Arabidopsis thaliana. Plant Cell, 2015, 27, 969-983.	6.6	52
39	The importance of dominance and genotype-by-environment interactions on grain yield variation in a large-scale public cooperative maize experiment. G3: Genes, Genomes, Genetics, 2021, 11, .	1.8	52
40	Adaptation to warmer climates by parallel functional evolution of <scp>CBF</scp> genes in Arabidopsis thaliana. Molecular Ecology, 2016, 25, 3632-3644.	3.9	50
41	HERBIVORES AND EDAPHIC FACTORS CONSTRAIN THE REALIZED NICHE OF A NATIVE PLANT. Ecology, 2008, 89, 754-762.	3.2	48
42	Genotype Ã— Environment Interactions of Industrial Hemp Cultivars Highlight Diverse Responses to Environmental Factors. , 2019, 2, 1-11.		47
43	Molecular evidence for adaptive radiation of Micromeria Benth. (Lamiaceae) on the Canary Islands as inferred from chloroplast and nuclear DNA sequences and ISSR fingerprint data. Molecular Phylogenetics and Evolution, 2006, 41, 566-578.	2.7	43
44	Exploring genetic and expression differences between physiologically extreme ecotypes: comparative genomic hybridization and gene expression studies of Kasâ€1 and Tsuâ€1 accessions of Arabidopsis thaliana. Plant, Cell and Environment, 2010, 33, 1268-1284.	5.7	40
45	Patterns of introduction and adaptation during the invasion of Aegilops triuncialis (Poaceae) into Californian serpentine soils. Molecular Ecology, 2010, 19, 5308-5319.	3.9	40
46	Identification of Polymorphisms Associated with Drought Adaptation QTL in Brassica napus by Resequencing. G3: Genes, Genomes, Genetics, 2016, 6, 793-803.	1.8	39
47	Natural genetic variation in wholeâ€genome expression in Arabidopsis thaliana: the impact of physiological QTL introgression. Molecular Ecology, 2006, 15, 1351-1365.	3.9	37
48	The population genomics of adaptive loss of function. Heredity, 2021, 126, 383-395.	2.6	33
49	Genetics of water use physiology in locally adapted Arabidopsis thaliana. Plant Science, 2016, 251, 12-22.	3.6	26
50	Genetic population divergence: markers and traits. Trends in Ecology and Evolution, 2002, 17, 501-502.	8.7	23
51	Development of a next-generation NIL library in Arabidopsis thaliana for dissecting complex traits. BMC Genomics, 2013, 14, 655.	2.8	22
52	Drought regimens predict life history strategies in Heliophila. New Phytologist, 2019, 223, 2054-2062.	7.3	22
53	Evolutionary ecology along invasion fronts of the annual grass Aegilops triuncialis. Biological Invasions, 2013, 15, 2531-2545.	2.4	19
54	Mating system and environmental variation drive patterns of adaptation in <scp>B</scp>oechera spatifolia (<scp>B</scp>rassicaceae). Molecular Ecology, 2014, 23, 4486-4497.	3.9	18

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55	Does Low Stomatal Conductance or Photosynthetic Capacity Enhance Growth at Elevated CO2 in Arabidopsis?. Plant Physiology, 2015, 167, 793-799.	4.8	16
56	TSPmap, a tool making use of traveling salesperson problem solvers in the efficient and accurate construction of high-density genetic linkage maps. BioData Mining, 2017, 10, 38.	4.0	16
57	LATITUDINAL VARIATION IN GENETIC DIVERGENCE OF POPULATIONS AND THE POTENTIAL FOR FUTURE SPECIATION. Evolution; International Journal of Organic Evolution, 2004, 58, 938.	2.3	14
58	Quantitative trait loci controlling agronomic and biochemical traits inCannabis sativa. Genetics, 2021, 219, .	2.9	14
59	Taxonomic Confusion Permits the Unchecked Invasion of Vernal Pools in California by Low Mannagrass (Glyceria declinata). Invasive Plant Science and Management, 2009, 2, 92-97.	1.1	13
60	Cell Wall Composition and Bioenergy Potential of Rice Straw Tissues Are Influenced by Environment, Tissue Type, and Genotype. Bioenergy Research, 2015, 8, 1165-1182.	3.9	13
61	Complementary Phenotyping of Maize Root System Architecture by Root Pulling Force and X-Ray Imaging. Plant Phenomics, 2021, 2021, 9859254.	5.9	13
62	ECOLOGICAL GENOMICS OF MODEL EUKARYOTES¹. Evolution; International Journal of Organic Evolution, 2008, 62, 2953-2957.	2.3	12
63	Ecological genetics of range size variation in Boechera spp. (Brassicaceae). Ecology and Evolution, 2015, 5, 4962-4975.	1.9	11
64	Screening for Natural Variation in Water Use Efficiency Traits in a Diversity Set of Brassica napus L. Identifies Candidate Variants in Photosynthetic Assimilation. Plant and Cell Physiology, 2017, 58, 1700-1709.	3.1	10
65	Combining quantitative trait loci analysis with physiological models to predict genotypeâ€specific transpiration rates. Plant, Cell and Environment, 2015, 38, 710-717.	5.7	9
66	Phenotypic diversity of Aegilops cylindrica (jointed goatgrass) accessions from the western United States under irrigated and dryland conditions. Agriculture, Ecosystems and Environment, 2013, 164, 244-251.	5.3	7
67	Genetic lineages of the invasive Aegilops triuncialis differ in competitive response to neighboring grassland species. Biological Invasions, 2017, 19, 469-478.	2.4	6
68	Withinâ€species tradeâ€offs in plantâ€stimulated soil enzyme activity and growth, flowering, and seed size. Ecology and Evolution, 2018, 8, 11717-11724.	1.9	5
69	Deployment of Lidar from a Ground Platform: Customizing a Low-Cost, Information-Rich and User-Friendly Application for Field Phenomics Research. Sensors, 2019, 19, 5358.	3.8	5
70	Linkage illuminates a complex genome. Nature Biotechnology, 2011, 29, 717-718.	17.5	4
71	Quantitative trait locus mapping for carbon isotope ratio and root pulling force inÂcanola. , 2020, 3, e20095.		4
72	Backcrossing Provides an Avenue for Gene Introgression from Wheat to Jointed Goatgrass (Aegilops cylindrica) in the U.S. Great Plains. Weed Science, 2011, 59, 188-194.	1.5	3

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73	Investigating genetic relationship of Brassica juncea with B. nigra via virtual allopolyploidy and hexaploidy strategy. Molecular Breeding, 2021, 41, 1.	2.1	2
74	Root Pulling Force Across Drought in Maize Reveals Genotype by Environment Interactions and Candidate Genes. Frontiers in Plant Science, 2022, 13, 883209.	3.6	2