Michael S Barker

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86 7,516 90 35 h-index g-index citations papers 6.91 8.4 10,229 101 avg, IF L-index ext. citations ext. papers

#	Paper	IF	Citations
90	The frequency of polyploid speciation in vascular plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 13875-9	11.5	847
89	Phylotranscriptomic analysis of the origin and early diversification of land plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, E4859-68	11.5	835
88	The Selaginella genome identifies genetic changes associated with the evolution of vascular plants. <i>Science</i> , 2011 , 332, 960-3	33.3	622
87	A community-derived classification for extant lycophytes and ferns. <i>Journal of Systematics and Evolution</i> , 2016 , 54, 563-603	2.9	562
86	One thousand plant transcriptomes and the phylogenomics of green plants. <i>Nature</i> , 2019 , 574, 679-685	50.4	529
85	Data access for the 1,000 Plants (1KP) project. <i>GigaScience</i> , 2014 , 3, 17	7.6	403
84	Recently formed polyploid plants diversify at lower rates. <i>Science</i> , 2011 , 333, 1257	33.3	308
83	The butterfly plant arms-race escalated by gene and genome duplications. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 8362-6	11.5	307
82	Multiple paleopolyploidizations during the evolution of the Compositae reveal parallel patterns of duplicate gene retention after millions of years. <i>Molecular Biology and Evolution</i> , 2008 , 25, 2445-55	8.3	264
81	On the relative abundance of autopolyploids and allopolyploids. <i>New Phytologist</i> , 2016 , 210, 391-8	9.8	194
80	Fern genomes elucidate land plant evolution and cyanobacterial symbioses. <i>Nature Plants</i> , 2018 , 4, 460	-4712 ₅	176
79	Early genome duplications in conifers and other seed plants. Science Advances, 2015, 1, e1501084	14.3	167
78	Paleopolyploidy in the Brassicales: analyses of the Cleome transcriptome elucidate the history of genome duplications in Arabidopsis and other Brassicales. <i>Genome Biology and Evolution</i> , 2009 , 1, 391-9	3.9	167
77	Rarely successful polyploids and their legacy in plant genomes. <i>Current Opinion in Plant Biology</i> , 2012 , 15, 140-6	9.9	160
76	Probabilistic models of chromosome number evolution and the inference of polyploidy. <i>Systematic Biology</i> , 2010 , 59, 132-44	8.4	148
75	Impact of whole-genome duplication events on diversification rates in angiosperms. <i>American Journal of Botany</i> , 2018 , 105, 348-363	2.7	134
74	De novo characterization of the gametophyte transcriptome in bracken fern, Pteridium aquilinum. <i>BMC Genomics</i> , 2011 , 12, 99	4.5	96

(2014-2009)

Comparative genomic and population genetic analyses indicate highly porous genomes and high levels of gene flow between divergent helianthus species. <i>Evolution; International Journal of Organic Evolution</i> , 2009 , 63, 2061-75	3.8	96	
Multiple large-scale gene and genome duplications during the evolution of hexapods. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 4713-4718	11.5	80	
Anthoceros genomes illuminate the origin of land plants and the unique biology of hornworts. <i>Nature Plants</i> , 2020 , 6, 259-272	11.5	77	
Unfurling Fern Biology in the Genomics Age. <i>BioScience</i> , 2010 , 60, 177-185	5.7	69	
EvoPipes.net: Bioinformatic Tools for Ecological and Evolutionary Genomics. <i>Evolutionary Bioinformatics</i> , 2010 , 6, 143-9	1.9	68	
Genomics of Compositae weeds: EST libraries, microarrays, and evidence of introgression. <i>American Journal of Botany</i> , 2012 , 99, 209-18	2.7	66	
Most Compositae (Asteraceae) are descendants of a paleohexaploid and all share a paleotetraploid ancestor with the Calyceraceae. <i>American Journal of Botany</i> , 2016 , 103, 1203-11	2.7	63	
Ancient genome duplications during the evolution of kiwifruit (Actinidia) and related Ericales. <i>Annals of Botany</i> , 2010 , 106, 497-504	4.1	60	
Spreading Winge and flying high: The evolutionary importance of polyploidy after a century of study. <i>American Journal of Botany</i> , 2016 , 103, 1139-45	2.7	58	
Between two fern genomes. <i>GigaScience</i> , 2014 , 3, 15	7.6	56	
Methods for studying polyploid diversification and the dead end hypothesis: a reply to Soltis et al. (2014). <i>New Phytologist</i> , 2015 , 206, 27-35	9.8	55	
Diverse genome organization following 13 independent mesopolyploid events in Brassicaceae contrasts with convergent patterns of gene retention. <i>Plant Journal</i> , 2017 , 91, 3-21	6.9	53	
Access to RNA-sequencing data from 1,173 plant species: The 1000 Plant transcriptomes initiative (1KP). <i>GigaScience</i> , 2019 , 8,	7.6	52	
Polyploid plants have faster rates of multivariate niche differentiation than their diploid relatives. <i>Ecology Letters</i> , 2020 , 23, 68-78	10	46	
Maternal expression relaxes constraint on innovation of the anterior determinant, bicoid. <i>PLoS Genetics</i> , 2005 , 1, e57	6	45	
Establishing genomic tools and resources for Guizotia abyssinica (L.f.) Cassthe development of a library of expressed sequence tags, microsatellite loci, and the sequencing of its chloroplast genome. <i>Molecular Ecology Resources</i> , 2010 , 10, 1048-58	8.4	42	
Genomic inferences of domestication events are corroborated by written records in Brassica rapa. <i>Molecular Ecology</i> , 2017 , 26, 3373-3388	5.7	38	
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	Multiple large-scale gene and genome duplications during the evolution of hexapods. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4713-4718 Anthoceros genomes illuminate the origin of land plants and the unique biology of hornworts. Nature Plants, 2020, 6, 259-272 Unfurling Fern Biology in the Genomics Age. BioScience, 2010, 60, 177-185 EvoPipes.net: Bioinformatic Tools for Ecological and Evolutionary Genomics. Evolutionary Bioinformatics, 2010, 6, 143-9 Genomics of Compositae weeds: EST libraries, microarrays, and evidence of introgression. American Journal of Botany, 2012, 99, 209-18 Most Compositae (Asteraceae) are descendants of a paleohexaploid and all share a paleotetraploid ancestor with the Calyceraceae. American Journal of Botany, 2016, 103, 1203-11 Ancient genome duplications during the evolution of kiwifruit (Actinidia) and related Ericales. Annals of Botany, 2010, 106, 497-504 Spreading Winge and flying high: The evolutionary importance of polyploidy after a century of study. American Journal of Botany, 2016, 103, 1139-45 Between two fern genomes. GigaScience, 2014, 3, 15 Methods for studying polyploid diversification and the dead end hypothesis: a reply to Soltis et al. (2014). New Phytologist, 2015, 206, 27-35 Diverse genome organization following 13 independent mesopolyploid events in Brassicaceae contrasts with convergent patterns of gene retention. Plant Journal, 2017, 91, 3-21 Access to RNA-sequencing data from 1,173 plant species: The 1000 Plant transcriptomes initiative (1KP). GigaScience, 2019, 8, Polyploid plants have faster rates of multivariate niche differentiation than their diploid relatives. Ecology Letters, 2020, 23, 68-78 Maternal expression relaxes constraint on innovation of the anterior determinant, bicoid. PLoS Genetics, 2005, 1, e57 Establishing genomic tools and resources for Guizotia abyssinica (L.f.) Cass-the development of a library of expressed sequence tags, microasatellite loci, and the sequencing of its chloro	levels of gene flow between divergent helianthus species. Evolution; International Journal of Organic Evolution, 2009, 63, 2061-75 Multiple large-scale gene and genome duplications during the evolution of hexapods. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4713-4718 Anthoceros genomes illuminate the origin of land plants and the unique biology of hornworts. Nature Plants, 2020, 6, 259-272 Unfurling Fern Biology in the Genomics Age. BioScience, 2010, 60, 177-185 57 EvoPipes.net: Bioinformatic Tools for Ecological and Evolutionary Genomics. Evolutionary Bioinformatics, 2010, 6, 143-9 Genomics of Compositae weeds: ESTI libraries, microarrays, and evidence of introgression. American Journal of Botany, 2012, 99, 209-18 Most Compositae (Asteraceae) are descendants of a paleohexaploid and all share a paleotetraploid ancestor with the Calyceraceae. American Journal of Botany, 2016, 103, 1203-11 Ancient genome duplications during the evolution of kiwifruit (Actinidia) and related Ericales. Annals of Botany, 2010, 106, 497-504 Spreading Winge and flying high: The evolutionary importance of polyploidy after a century of study. American Journal of Botany, 2016, 103, 1139-45 Between two fern genomes. GigoScience, 2014, 3, 15 Methods for studying polyploid diversification and the dead end hypothesis: a reply to Soltis et al. (2014). New Phytologist, 2015, 206, 27-35 Diverse genome organization following 13 independent mesopolyploid events in Brassicaceae contrasts with convergent patterns of gene retention. Plant Journal, 2017, 91, 3-21 Access to RNA-sequencing data from 1,173 plant species: The 1000 Plant transcriptomes initiative (1KP). GigoScience, 2019, 8, Polyploid plants have faster rates of multivariate niche differentiation than their diploid relatives. Ecology Letters, 2020, 23, 68-78 Maternal expression relaxes constraint on innovation of the anterior determinant, bicoid. PLoS Genetics, 2005, 1, e57 Establishing genomic tools and resources for Guizot	levels of gene flow between divergent helianthus species. Evolution; International Journal of Organic Evolution, 2009, 63, 2061-75 Multiple large-scale gene and genome duplications during the evolution of hexapods. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4713-4718 Anthoceros genomes illuminate the origin of land plants and the unique biology of hornworts. Nature Plants, 2020, 6, 259-272 Unfurling Fern Biology in the Genomics Age. BioScience, 2010, 60, 177-185 57 69 EvoPipes.net: Bioinformatic Tools for Ecological and Evolutionary Genomics. Evolutionary Bioinformatics, 2010, 6, 143-9 Genomics of Compositae weeds: EST libraries, microarrays, and evidence of introgression. American Journal of Botany, 2012, 99, 209-18 Most Compositae (Asteraceae) are descendants of a paleohexaploid and all share a paleotetraploid ancestor with the Calyceraceae. American Journal of Botany, 2016, 103, 1203-11 Ancient genome duplications during the evolution of kiwifruit (Actinidia) and related Ericales. Annals of Botany, 2010, 106, 497-504 Spreading Winge and flying high: The evolutionary importance of polyploidy after a century of study. American Journal of Botany, 2016, 103, 1139-45 Between two fern genomes. GigaScience, 2014, 3, 15 Access to RNA-sequencing data from 1,173 plant species: The 1000 Plant transcriptomes initiative (1KP). GigaScience, 2019, 8, 76 Polyploid plants have faster rates of multivariate niche differentiation than their diploid relatives. Foology Letters, 2020, 23, 68-78 Maternal expression relaxes constraint on innovation of the anterior determinant, bicoid. PLoS Genetics, 2005, 1, e57 Establishing genomic tools and resources for Guizotia abyssinica (L.f.) Cassthe development of a library of expressed sequence tags, microsatellite loci, and the sequencing of its chloroplast genome. Molecular Ecology Resources, 2010, 10, 1048-98 Genomic inferences of domestication events are corroborated by written records in Brassica rapa.

55	The Compositae Tree of Life in the age of phylogenomics. <i>Journal of Systematics and Evolution</i> , 2017 , 55, 405-410	2.9	35
54	Transcriptome and organellar sequencing highlights the complex origin and diversification of allotetraploid Brassica napus. <i>Nature Communications</i> , 2019 , 10, 2878	17.4	34
53	A total evidence approach to understanding phylogenetic relationships and ecological diversity in Selaginella subg. Tetragonostachys. <i>American Journal of Botany</i> , 2013 , 100, 1672-82	2.7	30
52	Assessing the Performance of Ks Plots for Detecting Ancient Whole Genome Duplications. <i>Genome Biology and Evolution</i> , 2018 , 10, 2882-2898	3.9	29
51	The Small Nuclear Genomes of Selaginella Are Associated with a Low Rate of Genome Size Evolution. <i>Genome Biology and Evolution</i> , 2016 , 8, 1516-25	3.9	26
50	Duplications and Turnover in Plant Genomes 2012 , 155-169		24
49	Evolution of the nuclear genome of ferns and lycophytes175-198		23
48	Karyotype and Genome Evolution in Pteridophytes 2013 , 245-253		22
47	Sequencing and Analyzing the Transcriptomes of a Thousand Species Across the Tree of Life for Green Plants. <i>Annual Review of Plant Biology</i> , 2020 , 71, 741-765	30.7	22
46	Is hybridization driving the evolution of climatic niche in Alyssum montanum. <i>American Journal of Botany</i> , 2016 , 103, 1348-57	2.7	19
45	Inferring putative ancient whole-genome duplications in the 1000 Plants (1KP) initiative: access to gene family phylogenies and age distributions. <i>GigaScience</i> , 2020 , 9,	7.6	18
44	Molecular evolution across the Asteraceae: micro- and macroevolutionary processes. <i>Molecular Biology and Evolution</i> , 2011 , 28, 3225-35	8.3	18
43	Gene co-inheritance and gene transfer. <i>Science</i> , 2007 , 315, 1685	33.3	18
42	The Chimonanthus salicifolius genome provides insight into magnoliid evolution and flavonoid biosynthesis. <i>Plant Journal</i> , 2020 , 103, 1910-1923	6.9	17
41	An Evaluation of Sceptridium dissectum (Ophioglossaceae) with ISSR Markers: Implications for Sceptridium Systematics. <i>American Fern Journal</i> , 2003 , 93, 1-19	0.6	15
40	Development of an ultra-dense genetic map of the sunflower genome based on single-feature polymorphisms. <i>PLoS ONE</i> , 2012 , 7, e51360	3.7	12
39	SCARF: maximizing next-generation EST assemblies for evolutionary and population genomic analyses. <i>Bioinformatics</i> , 2009 , 25, 535-6	7.2	12
38	Analysis of the Coptis chinensis genome reveals the diversification of protoberberine-type alkaloids. <i>Nature Communications</i> , 2021 , 12, 3276	17.4	12

37	Patterns and Processes of Diploidization in Land Plants. Annual Review of Plant Biology, 2021, 72, 387-4	419 0.7	10
36	Lepidopteran Soral Crypsis on Caribbean Ferns1. <i>Biotropica</i> , 2005 , 37, 314-316	2.3	9
35	Nuclear Genome Size is Positively Correlated with Median LTR-RT Insertion Time in Fern and Lycophyte Genomes. <i>American Fern Journal</i> , 2019 , 109, 248	0.6	9
34	Phylogeny and multiple independent whole-genome duplication events in the Brassicales. <i>American Journal of Botany</i> , 2020 , 107, 1148-1164	2.7	9
33	Reply to Nakatani and McLysaght: Analyzing deep duplication events. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 1819-1820	11.5	8
32	Transcriptome-derived evidence supports recent polyploidization and a major phylogeographic division in Trithuria submersa (Hydatellaceae, Nymphaeales). <i>New Phytologist</i> , 2016 , 210, 310-23	9.8	8
31	Genes derived from ancient polyploidy have higher genetic diversity and are associated with domestication in Brassica rapa. <i>New Phytologist</i> , 2021 , 230, 372-386	9.8	7
30	Modelling of gene loss propensity in the pangenomes of three Brassica species suggests different mechanisms between polyploids and diploids. <i>Plant Biotechnology Journal</i> , 2021 , 19, 2488-2500	11.6	7
29	A TAXONOMIC REVISION OF CARIBBEAN ADIANTOPSIS (PTERIDACEAE)1,2. <i>Annals of the Missouri Botanical Garden</i> , 2006 , 93, 371-401	1.8	6
28	Inferring the Demographic History of Inbred Species from Genome-Wide SNP Frequency Data. <i>Molecular Biology and Evolution</i> , 2020 , 37, 2124-2136	8.3	6
27	Polyploids increase overall diversity despite higher turnover than diploids in the Brassicaceae. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2020 , 287, 20200962	4.4	6
26	Chromosome-scale inference of hybrid speciation and admixture with convolutional neural networks. <i>Molecular Ecology Resources</i> , 2021 , 21, 2676-2688	8.4	6
25	Multilocus phylogenetic reconstruction informing polyploid relationships of Aconitum subgenus Lycoctonum (Ranunculaceae) in China. <i>Plant Systematics and Evolution</i> , 2017 , 303, 727-744	1.3	5
24	Inferring putative ancient whole genome duplications in the 1000 Plants (1KP) initiative: access to gene family phylogenies and age distributions		4
23	Phylogeny and Multiple Independent Whole-Genome Duplication Events in the Brassicales		4
22	The contributions from the progenitor genomes of the mesopolyploid Brassiceae are evolutionarily distinct but functionally compatible. <i>Genome Research</i> , 2021 , 31, 799-810	9.7	4
21	Genome size evolution in the diverse insect order Trichoptera GigaScience, 2022, 11,	7.6	4
20	Quantitative visualization of biological data in Google Earth using R2G2, an R CRAN package. <i>Molecular Ecology Resources</i> , 2012 , 12, 1177-9	8.4	3

19	An Adiantopsis Hybrid from Northeastern Argentina and Vicinity. American Fern Journal, 2003, 93, 42-4	40.6	3
18	Underwater CAM photosynthesis elucidated by Isoetes genome. <i>Nature Communications</i> , 2021 , 12, 634	1817.4	3
17	Chromosome-scale inference of hybrid speciation and admixture with convolutional neural networks		3
16	Polyploidy increases overall diversity despite higher turnover than diploids in the Brassicaceae		3
15	TagSeq for gene expression in non-model plants: A pilot study at the Santa Rita Experimental Range NEON core site. <i>Applications in Plant Sciences</i> , 2020 , 8, e11398	2.3	2
14	A Successfulin vitroPropagation Technique for Resurrection Plants of the Selaginellaceae. <i>American Fern Journal</i> , 2017 , 107, 96-104	0.6	2
13	Diverse genome organization following 13 independent mesopolyploid events in Brassicaceae contrasts with convergent patterns of gene retention		2
12	Progress Towards Plant Community Transcriptomics: Pilot RNA-Seq Data from 24 Species of Vascular Plants at Harvard Forest		2
11	Animal chromosome counts reveal a similar range of chromosome numbers but with less polyploidy in animals compared to flowering plants. <i>Journal of Evolutionary Biology</i> , 2021 , 34, 1333-1339	2.3	2
10	A Gneato nuclear genome. <i>Nature Plants</i> , 2018 , 4, 63-64	11.5	1
10	A Gneato nuclear genome. <i>Nature Plants</i> , 2018 , 4, 63-64 NU-IN: Nucleotide evolution and input module for the EvolSimulator genome simulation platform. <i>BMC Research Notes</i> , 2010 , 3, 217	11.5 2.3	1
	NU-IN: Nucleotide evolution and input module for the EvolSimulator genome simulation platform.		
9	NU-IN: Nucleotide evolution and input module for the EvolSimulator genome simulation platform. BMC Research Notes, 2010 , 3, 217		1
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9 8 7	NU-IN: Nucleotide evolution and input module for the EvolSimulator genome simulation platform. BMC Research Notes, 2010, 3, 217 Polyploid plants have faster rates of multivariate climatic niche evolution than their diploid relatives Current Status and Future Prospects for Fern and Lycophyte Genomics: Introduction to an American Fern Journal Special Issue. American Fern Journal, 2019, 109, 177 Most Compositae (Asteraceae) are descendants of a paleohexaploid and all share a paleotetraploid	2.3	1 1
9 8 7 6	NU-IN: Nucleotide evolution and input module for the EvolSimulator genome simulation platform. BMC Research Notes, 2010, 3, 217 Polyploid plants have faster rates of multivariate climatic niche evolution than their diploid relatives Current Status and Future Prospects for Fern and Lycophyte Genomics: Introduction to an American Fern Journal Special Issue. American Fern Journal, 2019, 109, 177 Most Compositae (Asteraceae) are descendants of a paleohexaploid and all share a paleotetraploid ancestor with the Calyceraceae TagSeq for gene expression in non-model plants: a pilot study at the Santa Rita Experimental	2.3	1 1 1
9 8 7 6 5	NU-IN: Nucleotide evolution and input module for the EvolSimulator genome simulation platform. BMC Research Notes, 2010, 3, 217 Polyploid plants have faster rates of multivariate climatic niche evolution than their diploid relatives Current Status and Future Prospects for Fern and Lycophyte Genomics: Introduction to an American Fern Journal Special Issue. American Fern Journal, 2019, 109, 177 Most Compositae (Asteraceae) are descendants of a paleohexaploid and all share a paleotetraploid ancestor with the Calyceraceae TagSeq for gene expression in non-model plants: a pilot study at the Santa Rita Experimental Range NEON core site	2.3	1 1 1 1 1

Pilot RNA-seq data from 24 species of vascular plants at Harvard Forest. *Applications in Plant Sciences*, **2021**, 9, e11409

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