Martin A Lysak

List of Publications by Year
in descending order

126 papers	10,919 citations	36203 51 h-index	34900 98 g-index
138 all docs	138 docs citations	138 times ranked	8266 citing authors

#	Article	IF	Citations
1	The Origin, Evolution and Proposed Stabilization of the Terms 'Genome Size' and 'C-Value' to Describe Nuclear DNA Contents. Annals of Botany, 2005, 95, 255-260.	1.4	622
2	Chromosome triplication found across the tribe Brassiceae. Genome Research, 2005, 15, 516-525.	2.4	598
3	The ABC's of comparative genomics in the Brassicaceae: building blocks of crucifer genomes. Trends in Plant Science, 2006, 11, 535-542.	4.3	535
4	Interphase chromosomes in Arabidopsis are organized as well defined chromocenters from which euchromatin loops emanate. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14584-14589.	3.3	429
5	The Capsella rubella genome and the genomic consequences of rapid mating system evolution. Nature Genetics, 2013, 45, 831-835.	9.4	374
6	Massive genomic variation and strong selection in Arabidopsis thaliana lines from Sweden. Nature Genetics, 2013, 45, 884-890.	9.4	371
7	Mechanisms of chromosome number reduction in Arabidopsis thaliana and related Brassicaceae species. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5224-5229.	3.3	360
8	An atlas of over 90,000 conserved noncoding sequences provides insight into crucifer regulatory regions. Nature Genetics, 2013, 45, 891-898.	9.4	350
9	Cabbage family affairs: the evolutionary history of Brassicaceae. Trends in Plant Science, 2011, 16, 108-116.	4.3	341
10	Deciphering the Diploid Ancestral Genome of the Mesohexaploid<i>Brassica rapa</i>Â Â. Plant Cell, 2013, 25, 1541-1554.	3.1	309
11	Plant Genome Size Estimation by Flow Cytometry: Inter-laboratory Comparison*1. Annals of Botany, 1998, 82, 17-26.	1.4	266
12	Interpretation of karyotype evolution should consider chromosome structural constraints. Trends in Genetics, 2011, 27, 207-216.	2.9	252
13	Chromosomal Phylogeny and Karyotype Evolution in x=7 Crucifer Species (Brassicaceae). Plant Cell, 2008, 20, 2559-2570.	3.1	213
14	Chromosome territory arrangement and homologous pairing in nuclei of Arabidopsis thaliana are predominantly random except for NOR-bearing chromosomes. Chromosoma, 2004, 113, 258-269.	1.0	206
15	A Time-Calibrated Road Map of Brassicaceae Species Radiation and Evolutionary History. Plant Cell, 2015, 27, tpc.15.00482.	3.1	200
16	Flow Sorting of Mitotic Chromosomes in Common Wheat (<i>Triticum aestivum</i> L.). Genetics, 2000, 156, 2033-2041.	1.2	200
17	The genetic and epigenetic landscape of the <i>Arabidopsis</i> centromeres. Science, 2021, 374, eabi7489.	6.0	188
18	Post-polyploid diploidization and diversification through dysploid changes. Current Opinion in Plant Biology, 2018, 42, 55-65.	3.5	171

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19	Fast Diploidization in Close Mesopolyploid Relatives of<i>Arabidopsis</i>Â Â. Plant Cell, 2010, 22, 2277-2290.	3.1	168
20	Ancestral Chromosomal Blocks Are Triplicated in Brassiceae Species with Varying Chromosome Number and Genome Size. Plant Physiology, 2007, 145, 402-410.	2.3	165
21	Estimation of nuclear DNA content in<i>Sesleria</i>(Poaceae). Caryologia, 1998, 51, 123-132.	0.2	159
22	The Dynamic Ups and Downs of Genome Size Evolution in Brassicaceae. Molecular Biology and Evolution, 2008, 26, 85-98.	3.5	158
23	Chromosome painting in Arabidopsis thaliana. Plant Journal, 2002, 28, 689-697.	2.8	156
24	Genome expansion of Arabis alpina linked with retrotransposition and reduced symmetric DNA methylation. Nature Plants, 2015, 1, 14023.	4.7	156
25	Supernetwork Identifies Multiple Events of Plastid trnF(GAA) Pseudogene Evolution in the Brassicaceae. Molecular Biology and Evolution, 2007, 24, 63-73.	3.5	124
26	Analysis of the giant genomes of <i><scp>F</scp>ritillaria</i> (<scp>L</scp>iliaceae) indicates that a lack of <scp>DNA</scp> removal characterizes extreme expansions in genome size. New Phytologist, 2015, 208, 596-607.	3.5	122
27	The Aquilegia genome provides insight into adaptive radiation and reveals an extraordinarily polymorphic chromosome with a unique history. ELife, 2018, 7, .	2.8	120
28	BrassiBase: Introduction to a Novel Knowledge Database on Brassicaceae Evolution. Plant and Cell Physiology, 2014, 55, e3-e3.	1.5	117
29	Catastrophic chromosomal restructuring during genome elimination in plants. ELife, 2015, 4, .	2.8	104
30	Diverse genome organization following 13 independent mesopolyploid events in Brassicaceae contrasts with convergent patterns of gene retention. Plant Journal, 2017, 91, 3-21.	2.8	95
31	Young inversion with multiple linked QTLs under selection in a hybrid zone. Nature Ecology and Evolution, 2017, 1, 119.	3.4	94
32	Flow cytometric analysis of nuclear DNA content in Musa. Theoretical and Applied Genetics, 1999, 98, 1344-1350.	1.8	92
33	Recent progress in chromosome painting of Arabidopsis and related species. Chromosome Research, 2003, 11, 195-204.	1.0	92
34	The More the Merrier: Recent Hybridization and Polyploidy in <i>Cardamine</i>. Plant Cell, 2013, 25, 3280-3295.	3.1	88
35	Development and Characterization of Microsatellite Markers from Chromosome 1-Specific DNA Libraries of Vicia Faba. Biologia Plantarum, 2002, 45, 337-345.	1.9	87
36	Comparative paleogenomics of crucifers: ancestral genomic blocks revisited. Current Opinion in Plant Biology, 2016, 30, 108-115.	3.5	84

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37	Flow karyotyping and sorting of mitotic chromosomes of barley (Hordeum vulgare L.). Chromosome Research, 1999, 7, 431-444.	1.0	83
38	Punctuated genome size evolution in Liliaceae. Journal of Evolutionary Biology, 2007, 20, 2296-2308.	0.8	82
39	FISH analysis of meiosis in Arabidopsis allopolyploids. Chromosome Research, 2003, 11, 217-226.	1.0	81
40	Heterogeneity of rDNA distribution and genome size in Silene spp. Chromosome Research, 2001, 9, 387-393.	1.0	78
41	Diverse retrotransposon families and an AT-rich satellite DNA revealed in giant genomes of Fritillaria lilies. Annals of Botany, 2011, 107, 255-268.	1.4	78
42	<i>Cardamine hirsuta</i>: a versatile genetic system for comparative studies. Plant Journal, 2014, 78, 1-15.	2.8	78
43	Preparation of HMW DNA from Plant Nuclei and Chromosomes Isolated from Root Tips. Biologia Plantarum, 2003, 46, 369-373.	1.9	67
44	The widespread crucifer species <i><scp>C</scp>ardamine flexuosa</i> is an allotetraploid with a conserved subgenomic structure. New Phytologist, 2014, 201, 982-992.	3.5	67
45	Gradual evolution of allopolyploidy in Arabidopsis suecica. Nature Ecology and Evolution, 2021, 5, 1367-1381.	3.4	64
46	Variation in DNAâ€ploidy Levels of Reynoutria Taxa in the Czech Republic. Annals of Botany, 2003, 92, 265-272.	1.4	63
47	Nuclear Î³-Tubulin during Acentriolar Plant Mitosis. Plant Cell, 2000, 12, 433-442.	3.1	62
48	Chromosome arrangement and nuclear architecture but not centromeric sequences are conserved betweenArabidopsis thalianaandArabidopsis lyrata. Plant Journal, 2006, 48, 771-783.	2.8	61
49	Origin and Evolution of Diploid and Allopolyploid Camelina Genomes was Accompanied by Chromosome Shattering. Plant Cell, 2019, 31, tpc.00366.2019.	3.1	61
50	Limited Genome Size Variation in Sesleria albicans. Annals of Botany, 2000, 86, 399-403.	1.4	57
51	Towards the era of comparative evolutionary genomics in Brassicaceae. Plant Systematics and Evolution, 2006, 259, 175-198.	0.3	55
52	Analysis of Plant Meiotic Chromosomes by Chromosome Painting. Methods in Molecular Biology, 2013, 990, 13-24.	0.4	55
53	Chromosome Preparation for Cytogenetic Analyses in <i>Arabidopsis</i>. Current Protocols in Plant Biology, 2016, 1, 43-51.	2.8	54
54	Cytogenetic Analyses of <i>Arabidopsis</i>. , 2006, 323, 173-186.		52

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55	Island species radiation and karyotypic stasis in Pachycladonallopolyploids. BMC Evolutionary Biology, 2010, 10, 367.	3.2	52
56	Genome Structure of the Heavy Metal Hyperaccumulator <i>Noccaea caerulescens</i> and Its Stability on Metalliferous and Nonmetalliferous Soils. Plant Physiology, 2015, 169, 674-689.	2.3	51
57	Repeated Whole-Genome Duplication, Karyotype Reshuffling, and Biased Retention of Stress-Responding Genes in Buckler Mustard. Plant Cell, 2016, 28, 17-27.	3.1	49
58	Multiple hybridization events in Cardamine (Brassicaceae) during the last 150 years: revisiting a textbook example of neoallopolyploidy. Annals of Botany, 2014, 113, 817-830.	1.4	46
59	Painting of Arabidopsis Chromosomes with Chromosomeâ€Specific BAC Clones. Current Protocols in Plant Biology, 2016, 1, 359-371.	2.8	46
60	When fathers are instant losers: homogenization of rDNA loci in recently formed Cardamine Â Ã—Âschulzii trigenomic allopolyploid. New Phytologist, 2014, 203, 1096-1108.	3.5	45
61	Multispeed genome diploidization and diversification after an ancient allopolyploidization. Molecular Ecology, 2017, 26, 6445-6462.	2.0	44
62	Unstable Inheritance of 45S rRNA Genes in<i>Arabidopsis thaliana</i>. G3: Genes, Genomes, Genetics, 2017, 7, 1201-1209.	0.8	43
63	Chromosomal localization of rDNA in the Brassicaceae. Genome, 2005, 48, 341-346.	0.9	42
64	Karyotype evolution in apomictic <i>Boechera</i> and the origin of the aberrant chromosomes. Plant Journal, 2015, 82, 785-793.	2.8	42
65	How diploidization turned a tetraploid into a pseudotriploid. American Journal of Botany, 2016, 103, 1187-1196.	0.8	41
66	Isolation of chromosomes from Pisum sativum L. hairy root cultures and their analysis by flow cytometry. Plant Science, 1998, 137, 205-215.	1.7	40
67	The Evolution of Chromosome Numbers: Mechanistic Models and Experimental Approaches. Genome Biology and Evolution, 2021, 13, .	1.1	38
68	Mechanisms of Chromosome Rearrangements. , 2013, , 137-147.		36
69	Epistatic and allelic interactions control expression of ribosomal RNA gene clusters in Arabidopsis thaliana. Genome Biology, 2017, 18, 75.	3.8	36
70	The story of promiscuous crucifers: origin and genome evolution of an invasive species, Cardamine occulta (Brassicaceae), and its relatives. Annals of Botany, 2019, 124, 209-220.	1.4	36
71	Monophyletic Origin and Evolution of the Largest Crucifer Genomes. Plant Physiology, 2017, 174, 2062-2071.	2.3	34
72	Chromatin features of plant telomeric sequences at terminal vs. internal positions. Frontiers in Plant Science, 2014, 5, 593.	1.7	33

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73	Live and let die: centromere loss during evolution of plant chromosomes. New Phytologist, 2014, 203, 1082-1089.	3.5	32
74	Genome Evolution in Arabideae Was Marked by Frequent Centromere Repositioning. Plant Cell, 2020, 32, 650-665.	3.1	32
75	Rapid identification and determination of purity of flow-sorted plant chromosomes using C-PRINS. Cytometry, 2000, 41, 102-108.	1.8	31
76	Genomic in situ hybridization in plants with small genomes is feasible and elucidates the chromosomal parentage in interspecific Arabidopsis hybrids. Genome, 2004, 47, 954-960.	0.9	31
77	Phylogeny, Genome, and Karyotype Evolution of Crucifers (Brassicaceae). , 2011, , 1-31.		31
78	A taxonomic study of theVaccinium sect.Oxycoccus (Hill) W.D.J. Kock (Ericaceae) in the Czech Republic and adjacent territories. Folia Geobotanica, 2001, 36, 303-320.	0.4	30
79	Nuclear DNA Content Variation among Central European Koeleria Taxa. Annals of Botany, 2006, 98, 117-122.	1.4	30
80	A bicontinental origin of polyploid Australian/New Zealand Lepidium species (Brassicaceae)? Evidence from genomic in situ hybridization. Annals of Botany, 2009, 104, 681-688.	1.4	29
81	WholeÂgenome triplication and species radiation in the southern African tribe Heliophileae (Brassicaceae). Taxon, 2012, 61, 989-1000.	0.4	29
82	Localisation of DNA sequences on plant chromosomes using PRINS and C-PRINS. Cytotechnology, 2001, 23, 71-82.	0.7	26
83	The large genome size variation in the Hesperis clade was shaped by the prevalent proliferation of DNA repeats and rarer genome downsizing. Annals of Botany, 2019, 124, 103-120.	1.4	26
84	Camelina neglecta (Brassicaceae, Camelineae), a new diploid species from Europe. PhytoKeys, 2019, 115, 51-57.	0.4	22
85	The best of both worlds: Combining lineageâ€specific and universal bait sets in targetâ€enrichment hybridization reactions. Applications in Plant Sciences, 2021, 9, .	0.8	22
86	Genome evolution of the psammophyte <i>Pugionium</i> for desert adaptation and further speciation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	22
87	Hybridizationâ€facilitated genome merger and repeated chromosome fusion after 8Âmillion years. Plant Journal, 2018, 96, 748-760.	2.8	21
88	Linked by Ancestral Bonds: Multiple Whole-Genome Duplications and Reticulate Evolution in a Brassicaceae Tribe. Molecular Biology and Evolution, 2021, 38, 1695-1714.	3.5	21
89	Reciprocal and Multi-Species Chromosome BAC Painting in Crucifers (Brassicaceae). Cytogenetic and Genome Research, 2010, 129, 184-189.	0.6	20
90	Molecular phylogeny and systematics of the tribe Chorisporeae (Brassicaceae). Plant Systematics and Evolution, 2011, 294, 65-86.	0.3	20

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91	Sorting of plant chromosomes. Methods in Cell Biology, 2001, 64, 3-31.	0.5	18
92	So Closely Related and Yet So Different: Strong Contrasts Between the Evolutionary Histories of Species of the Cardamine pratensis Polyploid Complex in Central Europe. Frontiers in Plant Science, 2020, 11, 588856.	1.7	18
93	Allele Sorting as a Novel Approach to Resolving the Origin of Allotetraploids Using Hyb-Seq Data: A Case Study of the Balkan Mountain Endemic Cardamine barbaraeoides. Frontiers in Plant Science, 2021, 12, 659275.	1.7	17
94	Phylogeny and systematics of the tribe Thlaspideae (Brassicaceae) and the recognition of two new genera. Taxon, 2018, 67, 324-340.	0.4	16
95	Nuclear organization in crucifer genomes: nucleolusâ€associated telomere clustering is not a universal interphase configuration in Brassicaceae. Plant Journal, 2021, 108, 528-540.	2.8	15
96	The genome of <i>Draba nivalis</i> shows signatures of adaptation to the extreme environmental stresses of the Arctic. Molecular Ecology Resources, 2021, 21, 661-676.	2.2	14
97	Chloroplast phylogenomics in <i>Camelina</i> (Brassicaceae) reveals multiple origins of polyploid species and the maternal lineage of <i>C. sativa</i>. Horticulture Research, 2022, 9, .	2.9	14
98	Karyo-taxonomic study of the genusPseudolysimachion (Scrophulariaceae) in the Czech Republic and Slovakia. Folia Geobotanica, 2004, 39, 173-203.	0.4	13
99	Phylogenetic analyses of ITS and <i>rbcL</i> DNA sequences for sixteen genera of Australian and New Zealand Brassicaceae result in the expansion of the tribe Microlepidieae. Taxon, 2012, 61, 970-979.	0.4	13
100	Current status of the multinational Arabidopsis community. Plant Direct, 2020, 4, e00248.	0.8	13
101	Evolution of Tandem Repeats Is Mirroring Post-polyploid Cladogenesis in Heliophila (Brassicaceae). Frontiers in Plant Science, 2020, 11, 607893.	1.7	13
102	Morphometric and karyological analysis of a population ofSesleria sadleriana Janka in the Biele Karpaty Mountains (Slovakia). Folia Geobotanica, 1997, 32, 47-55.	0.4	12
103	Brassicales: an update on chromosomal evolution and ancient polyploidy. Plant Systematics and Evolution, 2018, 304, 757-762.	0.3	12
104	Genomic Blocks in Aethionema arabicum Support Arabideae as Next Diverging Clade in Brassicaceae. Frontiers in Plant Science, 2020, 11, 719.	1.7	12
105	Chromosomal Evolution and Apomixis in the Cruciferous Tribe Boechereae. Frontiers in Plant Science, 2020, 11, 514.	1.7	10
106	chromDraw: an R package for visualization of linear and circular karyotypes. Chromosome Research, 2016, 24, 217-223.	1.0	7
107	Healthy Roots and Leaves: Comparative Genome Structure of Horseradish and Watercress. Plant Physiology, 2019, 179, 66-73.	2.3	7
108	The chromosomeâ€level genome sequence and karyotypic evolution of Megadenia pygmaea (Brassicaceae). Molecular Ecology Resources, 2021, 21, 871-879.	2.2	7

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109	Genome structure and apomixis in Phoenicaulis (Brassicaceae; Boechereae). Journal of Systematics and Evolution, 2021, 59, 83-92.	1.6	7
110	Comparative Cytogenetics of Wild Crucifers (Brassicaceae). , 2009, , 177-205.		7
111	Celebrating Mendel, McClintock, and Darlington: On end-to-end chromosome fusions and nested chromosome fusions. Plant Cell, 2022, 34, 2475-2491.	3.1	7
112	Recurrent Plant-Specific Duplications of KNL2 and its Conserved Function as a Kinetochore Assembly Factor. Molecular Biology and Evolution, 2022, 39, .	3.5	7
113	Ancient Biosyntheses in an Oil Crop: Glucosinolate Profiles in <i>Limnanthes alba</i> and Its Relatives (Limnanthaceae, Brassicales). Journal of Agricultural and Food Chemistry, 2022, 70, 1134-1147.	2.4	5
114	Cytogenetics, a Science Linking Genomics and Breeding: The Brassica Model. Compendium of Plant Genomes, 2018, , 21-39.	0.3	4
115	Icelandic accession of Arabidopsis thaliana confirmed with cytogenetic markers and its orign inferred from whole-genome sequencing. Icelandic Agricultural Sciences, 0, 30, 29-38.	0.0	4
116	A taxonomic Revision of the genus Graellsia (Brassicaceae, tribe Thlaspideae). Phytotaxa, 2017, 313, 105.	0.1	3
117	A taxonomic revision of the genus Pseudocamelina (Brasssicaceae, tribe Thlaspideae). Phytotaxa, 2017, 313, 117.	0.1	3
118	Genome invasion by a hypomethylated satellite repeat in Australian crucifer Ballantinia antipoda. Plant Journal, 2019, 99, 1066-1079.	2.8	3
119	Genome structure and evolution in the cruciferous tribe Thlaspideae (Brassicaceae). Plant Journal, 2021, , .	2.8	3
120	Intact ribosomal DNA arrays of <i>Potentilla</i> origin detected in <i>Erythronium</i> nucleus suggest recent eudicotâ€toâ€monocot horizontal transfer. New Phytologist, 2022, 235, 1246-1259.	3.5	3
121	Evolution of an Apomixis-Specific Allele Class in Supernumerary Chromatin of Apomictic Boechera. Frontiers in Plant Science, 2022, 13, .	1.7	3
122	Genome diploidization associates with cladogenesis, trait disparity, and plastid gene evolution. Plant Physiology, 2022, 190, 403-420.	2.3	3
123	Genomes, repeatomes and interphase chromosome organization in the meadowfoam family (Limnanthaceae, Brassicales). Plant Journal, 2022, 110, 1462-1475.	2.8	2
124	From transposon to chromosome and polyploidy. An update on cytogenetics and genomics of Arabidopsis. Chromosome Research, 2014, 22, 99-101.	1.0	1
125	Transfer of two Arabidella and two Cuphonotus species to the genus Lemphoria (Brassicaceae) and a description of the new species L. queenslandica. Phytotaxa, 2022, 549, 235-240.	0.1	1
126	The evolutionary history of<i>Cardamine bulbifera</i>shows a successful rapid postglacial Eurasian range expansion in the absence of sexual reproduction. Annals of Botany, 2022, 130, 245-263.	1.4	1