Deborah Charlesworth

List of Publications by Year
in descending order

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142 papers	17,641 citations	23567 58 h-index	15266 126 g-index

366 all docs	366 docs citations	366 times ranked	13334 citing authors

#	Article	IF	Citations
1	Rates of Spontaneous Mutation. Genetics, 1998, 148, 1667-1686.	2.9	1,672
2	The genetics of inbreeding depression. Nature Reviews Genetics, 2009, 10, 783-796.	16.3	1,545
3	A Model for the Evolution of Dioecy and Gynodioecy. American Naturalist, 1978, 112, 975-997.	2.1	1,201
4	The degeneration of Y chromosomes. Philosophical Transactions of the Royal Society B: Biological Sciences, 2000, 355, 1563-1572.	4.0	810
5	The effects of local selection, balanced polymorphism and background selection on equilibrium patterns of genetic diversity in subdivided populations. Genetical Research, 1997, 70, 155-174.	0.9	668
6	The genetic basis of inbreeding depression. Genetical Research, 1999, 74, 329-340.	0.9	627
7	Balancing Selection and Its Effects on Sequences in Nearby Genome Regions. PLoS Genetics, 2006, 2, e64.	3.5	560
8	The Evolution of the Selfing Rate in Functionally Hermaphrodite Plants and Animals. Annual Review of Ecology, Evolution, and Systematics, 1993, 24, 441-466.	6.7	394
9	Effects of inbreeding on the genetic diversity of populations. Philosophical Transactions of the Royal Society B: Biological Sciences, 2003, 358, 1051-1070.	4.0	384
10	Plant sex determination and sex chromosomes. Heredity, 2002, 88, 94-101.	2.6	380
11	The evolution of restricted recombination in sex chromosomes. Trends in Ecology and Evolution, 2009, 24, 94-102.	8.7	354
12	Evolution of Plant Breeding Systems. Current Biology, 2006, 16, R726-R735.	3.9	334
13	Breeding systems and genome evolution. Current Opinion in Genetics and Development, 2001, 11, 685-690.	3.3	329
14	Sequencing papaya X and Y ^h chromosomes reveals molecular basis of incipient sex chromosome evolution. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13710-13715.	7.1	264
15	Dynamics of inbreeding depression due to deleterious mutations in small populations: mutation parameters and inbreeding rate. Genetical Research, 1999, 74, 165-178.	0.9	249
16	Impact of mating systems on patterns of sequence polymorphism in flowering plants. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 3011-3019.	2.6	249
17	The Effects of Genetic and Geographic Structure on Neutral Variation. Annual Review of Ecology, Evolution, and Systematics, 2003, 34, 99-125.	8.3	215
18	A Gradual Process of Recombination Restriction in the Evolutionary History of the Sex Chromosomes in Dioecious Plants. PLoS Biology, 2004, 3, e4.	5.6	198

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19	Evolutionary Strata on the X Chromosomes of the Dioecious Plant Silene latifolia: Evidence From New Sex-Linked Genes. Genetics, 2007, 175, 1945-1954.	2.9	193
20	The effect of subdivision on variation at multi-allelic loci under balancing selection. Genetical Research, 2000, 76, 51-62.	0.9	190
21	About PAR: The distinct evolutionary dynamics of the pseudoautosomal region. Trends in Genetics, 2011, 27, 358-367.	6.7	184
22	Rates and Patterns of Molecular Evolution in Inbred and Outbred Arabidopsis. Molecular Biology and Evolution, 2002, 19, 1407-1420.	8.9	180
23	Low variability in a Y-linked plant gene and its implications for Y-chromosome evolution. Nature, 2000, 404, 388-390.	27.8	178
24	The sources of adaptive variation. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20162864.	2.6	174
25	The Birds and the Bees and the Flowers and the Trees: Lessons from Genetic Mapping of Sex Determination in Plants and Animals. Genetics, 2010, 186, 9-31.	2.9	171
26	Patterns of Polymorphism and Demographic History in Natural Populations of Arabidopsis lyrata. PLoS ONE, 2008, 3, e2411.	2.5	163
27	Rapid fixation of deleterious alleles can be caused by Muller's ratchet. Genetical Research, 1997, 70, 63-73.	0.9	161
28	The Transition to Self-Compatibility in Arabidopsis thaliana and Evolution within S-Haplotypes over 10 Myr. Molecular Biology and Evolution, 2006, 23, 1741-1750.	8.9	154
29	Plant sex chromosome evolution. Journal of Experimental Botany, 2013, 64, 405-420.	4.8	154
30	Identification and Characterization of a Polymorphic Receptor Kinase Gene Linked to the Self-Incompatibility Locus of Arabidopsis lyrata. Genetics, 2001, 158, 387-399.	2.9	142
31	Evolution of recombination rates between sex chromosomes. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160456.	4.0	140
32	Preservation of the Y Transcriptome in a 10-Million-Year-Old Plant Sex Chromosome System. Current Biology, 2011, 21, 1470-1474.	3.9	139
33	Plant selfâ€incompatibility systems: a molecular evolutionary perspective. New Phytologist, 2005, 168, 61-69.	7.3	136
34	Plant Sex Chromosomes. Annual Review of Plant Biology, 2016, 67, 397-420.	18.7	135
35	An X-linked gene with a degenerate Y-linked homologue in a dioecious plant. Nature, 1998, 393, 263-266.	27.8	132
36	Subdivision and haplotype structure in natural populations of Arabidopsis lyrata. Molecular Ecology, 2003, 12, 1247-1263.	3.9	131

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37	Some evolutionary consequences of deleterious mutations. Genetica, 1998, 102/103, 3-19.	1.1	129
38	FLORAL SEX ALLOCATION IN SEQUENTIALLY BLOOMING PLANTS. Evolution; International Journal of Organic Evolution, 1995, 49, 70-79.	2.3	126
39	Evidence for Degeneration of the Y Chromosome in the Dioecious Plant Silene latifolia. Current Biology, 2008, 18, 545-549.	3.9	123
40	The importance of the Neutral Theory in 1968 and 50 years on: A response to Kern and Hahn 2018. Evolution; International Journal of Organic Evolution, 2019, 73, 111-114.	2.3	123
41	The status of supergenes in the 21st century: recombination suppression in <scp>B</scp>atesian mimicry and sex chromosomes and other complex adaptations. Evolutionary Applications, 2016, 9, 74-90.	3.1	121
42	Plant contributions to our understanding of sex chromosome evolution. New Phytologist, 2015, 208, 52-65.	7.3	110
43	Patterns of Nucleotide Polymorphism Distinguish Temperate and Tropical Wild Isolates of Caenorhabditis briggsae. Genetics, 2006, 173, 2021-2031.	2.9	100
44	DNA Polymorphism, Haplotype Structure and Balancing Selection in the Leavenworthia PgiC Locus. Genetics, 1999, 153, 1423-1434.	2.9	99
45	Analysis and Evolution of Two Functional Y-Linked Loci in a Plant Sex Chromosome System. Molecular Biology and Evolution, 2001, 18, 2162-2168.	8.9	97
46	Exaggerated heterochiasmy in a fish with sex-linked male coloration polymorphisms. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6924-6931.	7.1	97
47	Why do plants produce so many more ovules than seeds?. Nature, 1989, 338, 21-22.	27.8	96
48	THE POTENTIAL FOR SEXUALLY ANTAGONISTIC POLYMORPHISM IN DIFFERENT GENOME REGIONS. Evolution; International Journal of Organic Evolution, 2012, 66, 505-516.	2.3	92
49	Selection of new inversions in multi-locus genetic systems. Genetical Research, 1973, 21, 167-183.	0.9	89
50	Haplotype Structure of the Stigmatic Self-Incompatibility Gene in Natural Populations of Arabidopsis lyrata. Molecular Biology and Evolution, 2003, 20, 1741-1753.	8.9	89
51	Origin and domestication of papaya Y^h chromosome. Genome Research, 2015, 25, 524-533.	5.5	87
52	Reduced Efficacy of Natural Selection on Codon Usage Bias in Selfing Arabidopsis and Capsella Species. Genome Biology and Evolution, 2011, 3, 868-880.	2.5	85
53	Duplicative Transfer of a MADS Box Gene to a Plant Y Chromosome. Molecular Biology and Evolution, 2003, 20, 1062-1069.	8.9	80
54	Expansion of the Pseudo-autosomal Region and Ongoing Recombination Suppression in the Silene latifolia Sex Chromosomes. Genetics, 2013, 194, 673-686.	2.9	78

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55	Young sex chromosomes in plants and animals. New Phytologist, 2019, 224, 1095-1107.	7.3	73
56	Recombination and Selection at Brassica Self-Incompatibility Loci. Genetics, 1999, 152, 413-425.	2.9	71
57	A new physical mapping approach refines the sex-determining gene positions on the Silene latifolia Y-chromosome. Scientific Reports, 2016, 6, 18917.	3.3	70
58	Evidences for a role of two Y-specific genes in sex determination in Populus deltoides. Nature Communications, 2020, 11, 5893.	12.8	68
59	DNA Diversity in Sex-Linked and Autosomal Genes of the Plant Species Silene latifolia and Silene dioica. Molecular Biology and Evolution, 2001, 18, 1442-1454.	8.9	67
60	Diversity and Linkage of Genes in the Self-Incompatibility Gene Family in Arabidopsis lyrata. Genetics, 2003, 164, 1519-1535.	2.9	67
61	A STUDY OF LINKAGE DISEQUILIBRIUM IN POPULATIONS OF DROSOPHILA MELANOGASTER. Genetics, 1973, 73, 351-359.	2.9	65
62	Testing for Effects of Recombination Rate on Nucleotide Diversity in Natural Populations of Arabidopsis lyrata. Genetics, 2006, 174, 1421-1430.	2.9	64
63	The effect of hitch-hiking on genes linked to a balanced polymorphism in a subdivided population. Genetical Research, 2000, 76, 63-73.	0.9	63
64	Gene Loss from a Plant Sex Chromosome System. Current Biology, 2015, 25, 1234-1240.	3.9	62
65	Balancing Selection and Low Recombination Affect Diversity near the Self-Incompatibility Loci of the Plant Arabidopsis lyrata. Current Biology, 2005, 15, 1773-1778.	3.9	61
66	Sex Chromosomes: Evolution of the Weird and Wonderful. Current Biology, 2005, 15, R129-R131.	3.9	57
67	Evolution of sex-biased gene expression in a dioecious plant. Nature Plants, 2016, 2, 16168.	9.3	57
68	Recent and Ancient Signature of Balancing Selection around the S-Locus in Arabidopsis halleri and A. lyrata. Molecular Biology and Evolution, 2013, 30, 435-447.	8.9	55
69	THE EVOLUTIONARY DYNAMICS OF SEXUALLY ANTAGONISTIC MUTATIONS IN PSEUDOAUTOSOMAL REGIONS OF SEX CHROMOSOMES. Evolution; International Journal of Organic Evolution, 2014, 68, 1339-1350.	2.3	53
70	Rapid divergence and expansion of the X chromosome in papaya. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13716-13721.	7.1	52
71	Testing for the Footprint of Sexually Antagonistic Polymorphisms in the Pseudoautosomal Region of a Plant Sex Chromosome Pair. Genetics, 2013, 194, 663-672.	2.9	51
72	An experiment on recombination load in Drosophila melanogaster. Genetical Research, 1975, 25, 267-273.	0.9	50

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73	Darwin and Genetics. Genetics, 2009, 183, 757-766.	2.9	48
74	How and when didArabidopsis thaliana become highly self-fertilising. BioEssays, 2005, 27, 472-476.	2.5	46
75	Trans-specificity at Loci Near the Self-Incompatibility Loci in Arabidopsis. Genetics, 2006, 172, 2699-2704.	2.9	46
76	Early Events in the Evolution of the Silene latifolia Y Chromosome: Male Specialization and Recombination Arrest. Genetics, 2007, 177, 375-386.	2.9	44
77	Linkage Disequilibrium and Recombination Rate Estimates in the Self-Incompatibility Region of Arabidopsis lyrata. Genetics, 2007, 176, 2357-2369.	2.9	43
78	How Can Two-Gene Models of Self-Incompatibility Generate New Specificities?. Plant Cell, 2000, 12, 309-310.	6.6	41
79	BREAKDOWN OF DIOECY: MODELS WHERE MALES ACQUIRE COSEXUAL FUNCTIONS. Evolution; International Journal of Organic Evolution, 2014, 68, 426-440.	2.3	41
80	Nucleotide diversity in Silene latifolia autosomal and sex-linked genes. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 3283-3290.	2.6	38
81	Duplication of Centromeric Histone H3 (HTR12) Gene in Arabidopsis halleri and A. lyrata, Plant Species With Multiple Centromeric Satellite Sequences. Genetics, 2006, 174, 2021-2032.	2.9	36
82	Improved Reference Genome Uncovers Novel Sex-Linked Regions in the Guppy (Poecilia reticulata). Genome Biology and Evolution, 2020, 12, 1789-1805.	2.5	36
83	Linkage Disequilibrium Between Incompatibility Locus Region Genes in the Plant Arabidopsis lyrata. Genetics, 2006, 173, 1057-1073.	2.9	35
84	Self-incompatibility: How to Stay Incompatible. Current Biology, 2002, 12, R424-R426.	3.9	34
85	The Guppy Sex Chromosome System and the Sexually Antagonistic Polymorphism Hypothesis for Y Chromosome Recombination Suppression. Genes, 2018, 9, 264.	2.4	34
86	When and how do sexâ€linked regions become sex chromosomes?. Evolution; International Journal of Organic Evolution, 2021, 75, 569-581.	2.3	34
87	Centromere Locations and Associated Chromosome Rearrangements in Arabidopsis lyrata and A. thaliana. Genetics, 2006, 173, 1613-1619.	2.9	32
88	Starchâ€gel electrophoresis of four enzymes from human red blood cells: glyceraldehydeâ€3â€phosphate dehydrogenase, fructoaldolase, glyoxalase II and sorbitol dehydrogenase. Annals of Human Genetics, 1972, 35, 477-484.	0.8	30
89	Comparative gene mapping in Arabidopsis lyrata chromosomes 6 and 7 and A. thaliana chromosome IV: evolutionary history, rearrangements and local recombination rates. Genetical Research, 2006, 88, 45-56.	0.9	30
90	The timing of genetic degeneration of sex chromosomes. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20200093.	4.0	30

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91	Multiple Nuclear Gene Phylogenetic Analysis of the Evolution of Dioecy and Sex Chromosomes in the Genus Silene. PLoS ONE, 2011, 6, e21915.	2.5	29
92	Evolution of sex determination and heterogamety changes in section Otites of the genus Silene. Scientific Reports, 2019, 9, 1045.	3.3	29
93	The measurement of fitness and mutation rate in human populations. Annals of Human Genetics, 1973, 37, 175-187.	0.8	28
94	The interâ€specific hybrid Silene latifoliaÃ—S. viscosa reveals early events of sex chromosome evolution. Evolution & Development, 2005, 7, 327-336.	2.0	28
95	Pleiotropic effects of sex-determining genes in the evolution of dioecy in two plant species. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191805.	2.6	28
96	Chromosomeâ€scale assembly of the genome of Salixdunnii reveals a maleâ€heterogametic sex determination system on chromosome 7. Molecular Ecology Resources, 2021, 21, 1966-1982.	4.8	28
97	Does sexual dimorphism in plants promote sex chromosome evolution?. Environmental and Experimental Botany, 2018, 146, 5-12.	4.2	27
98	Using GC Content to Compare Recombination Patterns on the Sex Chromosomes and Autosomes of the Guppy, Poecilia reticulata, and Its Close Outgroup Species. Molecular Biology and Evolution, 2020, 37, 3550-3562.	8.9	27
99	Multi-allelic self-incompatibility polymorphisms in plants. BioEssays, 1995, 17, 31-38.	2.5	26
100	Genetic variability of plant characters in the partial inbreeder Collinsia heterophylla (Scrophulariaceae). American Journal of Botany, 1995, 82, 112-120.	1.7	25
101	How was the Sdic gene fixed?. Nature, 1999, 400, 519-520.	27.8	24
102	Evolutionary Biology: The Origins of Two Sexes. Current Biology, 2010, 20, R519-R521.	3.9	24
103	Locating the Sex Determining Region of Linkage Group 12 of Guppy (Poecilia reticulata). G3: Genes, Genomes, Genetics, 2020, 10, 3639-3649.	1.8	24
104	High DNA Sequence Diversity in Pericentromeric Genes of the Plant Arabidopsis lyrata. Genetics, 2008, 179, 985-995.	2.9	22
105	How did the guppy Y chromosome evolve?. PLoS Genetics, 2021, 17, e1009704.	3.5	22
106	Population distribution and ancestry of the cancer protective MDM2 SNP285 (rs117039649). Oncotarget, 2014, 5, 8223-8234.	1.8	22
107	Extremely low nucleotide diversity in the X-linked region of papaya caused by a strong selective sweep. Genome Biology, 2016, 17, 230.	8.8	21
108	GENETIC EVIDENCE FOR MULTIPLE ORIGINS OF DIOECY IN THE HAWAIIAN SHRUBWIKSTROEMIA(THYMELAEACEAE). Evolution; International Journal of Organic Evolution, 1992, 46, 207-215.	2.3	20

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109	Plant Evolution: Modern Sex Chromosomes. Current Biology, 2004, 14, R271-R273.	3.9	18
110	Sequence diversity patterns suggesting balancing selection in partially sexâ€linked genes of the plant Silene latifolia are not generated by demographic history or gene flow. Molecular Ecology, 2017, 26, 1357-1370.	3.9	17
111	Neutral Variation in the Context of Selection. Molecular Biology and Evolution, 2018, 35, 1359-1361.	8.9	16
112	Genetic Variability of Plant Characters in the Partial Inbreeder Collinsia heterophylla (Scrophulariaceae). American Journal of Botany, 1995, 82, 112.	1.7	16
113	Sex Determination: Balancing Selection in the Honey Bee. Current Biology, 2004, 14, R568-R569.	3.9	15
114	Self-incompatibility. F1000 Biology Reports, 2010, 2, 68.	4.0	15
115	Point estimation and graphical inference of marginal dominance for two viability loci controlling inbreeding depression. Genetical Research, 1997, 70, 143-153.	0.9	14
116	DOES LOCAL ADAPTATION CAUSE HIGH POPULATION DIFFERENTIATION OF SILENE LATIFOLIA Y CHROMOSOMES?. Evolution; International Journal of Organic Evolution, 2011, 65, 3368-3380.	2.3	13
117	Hubby and Lewontin on Protein Variation in Natural Populations: When Molecular Genetics Came to the Rescue of Population Genetics. Genetics, 2016, 203, 1497-1503.	2.9	12
118	Low Diversity and Divergence in the fil1 Gene Family of Antirrhinum (Scrophulariaceae). Journal of Molecular Evolution, 2001, 52, 171-181.	1.8	11
119	Has adaptation occurred in males and females since separate sexes evolved in the plantSilene latifolia?. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20172824.	2.6	11
120	Genetic variation in recombination in Drosophila. III. Regional effects on crossing over and effects on non-disjunction. Heredity, 1985, 55, 209-221.	2.6	10
121	A high mutation rate in a long lived perennial plant. Nature, 1989, 340, 346-347.	27.8	10
122	Save the male. Current Biology, 1993, 3, 155-157.	3.9	10
123	Mimicry: The Hunting of the Supergene. Current Biology, 2011, 21, R846-R848.	3.9	10
124	Mogens Westergaardâ€™s Contributions to Understanding Sex Chromosomes. Genetics, 2018, 210, 1143-1149.	2.9	10
125	Embryo and seed abortion in plants. Nature, 1989, 342, 625-626.	27.8	9
126	Origins of rice cytoplasmic male sterility genes. Cell Research, 2017, 27, 3-4.	12.0	9

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127	Reply to Wright et al.: How to explain the absence of extensive Y-specific regions in the guppy sex chromosomes. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12609-12610.	7.1	8
128	Evolution: A New Idea about the Degeneration of Y and W Chromosomes. Current Biology, 2020, 30, R871-R873.	3.9	7
129	Molecular Evolution: Breakthroughs and Mysteries in Batesian Mimicry. Current Biology, 2015, 25, R506-R508.	3.9	6
130	The mysterious sex chromosomes of haploid plants. Heredity, 2022, 129, 17-21.	2.6	6
131	Evolution of sexual systems, sex chromosomes and sex-linked gene transcription in flatworms and roundworms. Nature Communications, 2022, 13, .	12.8	6
132	PromethION Sequencing and Assembly of the Genome of Micropoecilia picta, a Fish with a Highly Degenerated Y Chromosome. Genome Biology and Evolution, 2021, 13, .	2.5	4
133	Evolution of a Y Chromosome from an X Chromosome. SSRN Electronic Journal, 0, , .	0.4	4
134	Some thoughts about the words we use for thinking about sex chromosome evolution. Philosophical Transactions of the Royal Society B: Biological Sciences, 2022, 377, 20210314.	4.0	4
135	Arms races with mitochondrial genome soft sweeps in a gynodioecious plant, Plantago lanceolata. Molecular Ecology, 2019, 28, 2772-2785.	3.9	3
136	Evolutionary Genetics: Changed Sex Determination in Honeybees. Current Biology, 2008, 18, R610-R612.	3.9	2
137	HAEMOGLOBIN KÃ–LN IN A JEWISH FAMILY. Journal of Internal Medicine, 1972, 191, 177-180.	6.0	2
138	Competitive Centromeres. Science, 2008, 322, 1484-1485.	12.6	1
139	Evolution: The oldest sex chromosomes. Current Biology, 2021, 31, R1585-R1588.	3.9	1
140	Molecular Evolution and Adaptive Radiation. Edited by T. J. Givnish and K. J. Sytsma. Cambridge University Press. 1997. 621 pages. Price Â£65/$105. ISBN 0 521 57329 7.. Genetical Research, 1998, 71, 181-184.	0.9	0
141	The puzzling guppy Y chromosome. Nature Reviews Genetics, 2021, 22, 480-481.	16.3	0
142	Evolution: Shape-shifting vole sex determination andÂsex chromosomes. Current Biology, 2021, 31, R967-R969.	3.9	0