

Graham Bell

List of Publications by Year in descending order

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108
papers

10,323
citations

38720

50
h-index

36008

97
g-index

113
all docs

113
docs citations

113
times ranked

11067
citing authors

#	ARTICLE	IF	CITATIONS
1	Global Mapping of the Yeast Genetic Interaction Network. <i>Science</i> , 2004, 303, 808-813.	6.0	1,908
2	Evolutionary rescue can prevent extinction following environmental change. <i>Ecology Letters</i> , 2009, 12, 942-948.	3.0	450
3	The Distribution of Abundance in Neutral Communities. <i>American Naturalist</i> , 2000, 155, 606-617.	1.0	378
4	Fluctuating selection: the perpetual renewal of adaptation in variable environments. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2010, 365, 87-97.	1.8	345
5	Phenotypic consequences of 1,000 generations of selection at elevated CO ₂ in a green alga. <i>Nature</i> , 2004, 431, 566-569.	13.7	337
6	Adaptation and Evolutionary Rescue in Metapopulations Experiencing Environmental Deterioration. <i>Science</i> , 2011, 332, 1327-1330.	6.0	331
7	Experimental evolution of resistance to an antimicrobial peptide. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2006, 273, 251-256.	1.2	330
8	Diversity peaks at intermediate productivity in a laboratory microcosm. <i>Nature</i> , 2000, 406, 508-512.	13.7	308
9	Disturbance and diversity in experimental microcosms. <i>Nature</i> , 2000, 408, 961-964.	13.7	276
10	Adaptation, extinction and global change. <i>Evolutionary Applications</i> , 2008, 1, 3-16.	1.5	258
11	The Ecology and Genetics of Fitness in Forest Plants. II. Microspatial Heterogeneity of the Edaphic Environment. <i>Journal of Ecology</i> , 1991, 79, 687.	1.9	249
12	Evolutionary rescue and the limits of adaptation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013, 368, 20120080.	1.8	243
13	Evolutionary Rescue. <i>Annual Review of Ecology, Evolution, and Systematics</i> , 2017, 48, 605-627.	3.8	236
14	THE ECOLOGY AND GENETICS OF FITNESS IN CHLAMYDOMONAS. XII. REPEATED SEXUAL EPISODES INCREASE RATES OF ADAPTATION TO NOVEL ENVIRONMENTS. <i>Evolution; International Journal of Organic Evolution</i> , 2002, 56, 1743-1753.	1.1	226
15	Mammalian chiasma frequencies as a test of two theories of recombination. <i>Nature</i> , 1987, 326, 803-805.	13.7	213
16	Speciation driven by hybridization and chromosomal plasticity in a wild yeast. <i>Nature Microbiology</i> , 2016, 1, 15003.	5.9	161
17	The advantage of sex in evolving yeast populations. <i>Nature</i> , 1997, 388, 465-468.	13.7	159
18	The evolution of a pleiotropic fitness tradeoff in <i>Pseudomonas fluorescens</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 8072-8077.	3.3	156

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19	Experimental evolution in <i>Chlamydomonas</i> . III. Evolution of specialist and generalist types in environments that vary in space and time. <i>Heredity</i> , 1997, 78, 507-514.	1.2	149
20	Sex differences in recombination. <i>Journal of Evolutionary Biology</i> , 1991, 4, 259-277.	0.8	135
21	Short-term selection for recombination among mutually antagonistic species. <i>Nature</i> , 1987, 328, 66-68.	13.7	126
22	THE CO-DISTRIBUTION OF SPECIES IN RELATION TO THE NEUTRAL THEORY OF COMMUNITY ECOLOGY. <i>Ecology</i> , 2005, 86, 1757-1770.	1.5	125
23	Arming the enemy: the evolution of resistance to self-proteins. <i>Microbiology (United Kingdom)</i> , 2003, 149, 1367-1375.	0.7	122
24	Evolutionary rescue and adaptation to abrupt environmental change depends upon the history of stress. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013, 368, 20120079.	1.8	115
25	<i>Saccharomyces sensu stricto</i> as a model system for evolution and ecology. <i>Trends in Ecology and Evolution</i> , 2008, 23, 494-501.	4.2	113
26	The effect of elevated CO ₂ on growth and competition in experimental phytoplankton communities. <i>Global Change Biology</i> , 2011, 17, 2525-2535.	4.2	110
27	A Gillnet Fishery Considered as an Experiment in Artificial Selection. <i>Journal of the Fisheries Research Board of Canada</i> , 1977, 34, 954-961.	1.0	107
28	Experimental Evolution of <i>Pseudomonas fluorescens</i> in Simple and Complex Environments. <i>American Naturalist</i> , 2005, 166, 470-480.	1.0	98
29	The Ecology and Genetics of Fitness in Forest Plants. I. Environmental Heterogeneity Measured by Explant Trials. <i>Journal of Ecology</i> , 1991, 79, 663.	1.9	85
30	EVOLUTIONARY RESCUE OF SEXUAL AND ASEXUAL POPULATIONS IN A DETERIORATING ENVIRONMENT. <i>Evolution; International Journal of Organic Evolution</i> , 2012, 66, 3508-3518.	1.1	79
31	AN EXPERIMENTAL TEST OF LOCAL ADAPTATION IN SOIL BACTERIA. <i>Evolution; International Journal of Organic Evolution</i> , 2003, 57, 27-36.	1.1	78
32	Experimental evolution in <i>Chlamydomonas</i> . IV. Selection in environments that vary through time at different scales. <i>Heredity</i> , 1998, 80, 732-741.	1.2	76
33	MEASURING THE COST OF REPRODUCTION. I. THE CORRELATION STRUCTURE OF THE LIFE TABLE OF A PLANKTON ROTIFER. <i>Evolution; International Journal of Organic Evolution</i> , 1984, 38, 300-313.	1.1	73
34	Mild environmental stress elicits mutations affecting fitness in <i>Chlamydomonas</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2000, 267, 123-129.	1.2	70
35	The Search for "Evolution-Proof" Antibiotics. <i>Trends in Microbiology</i> , 2018, 26, 471-483.	3.5	68
36	Evolution of natural algal populations at elevated CO ₂ . <i>Ecology Letters</i> , 2006, 9, 129-135.	3.0	67

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37	Experimental Adaptive Radiation in <i>Pseudomonas</i> . <i>American Naturalist</i> , 2002, 160, 569-581.	1.0	65
38	Macroevolution simulated with autonomously replicating computer programs. <i>Nature</i> , 2002, 420, 810-812.	13.7	65
39	Community rescue in experimental metacommunities. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 14307-14312.	3.3	65
40	THE ECOLOGY AND GENETICS OF FITNESS IN <i>CHLAMYDOMONAS</i> . VIII. THE DYNAMICS OF ADAPTATION TO NOVEL ENVIRONMENTS AFTER A SINGLE EPISODE OF SEX. <i>Evolution; International Journal of Organic Evolution</i> , 2002, 56, 14-21.	1.1	64
41	Aquatic primary production in a high-CO ₂ world. <i>Trends in Ecology and Evolution</i> , 2014, 29, 223-232.	4.2	64
42	Environmental heterogeneity and species diversity of forest sedges. <i>Journal of Ecology</i> , 2000, 88, 67-87.	1.9	63
43	The interpretation of biological surveys. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2003, 270, 2531-2542.	1.2	63
44	Mutations of intermediate effect are responsible for adaptation in evolving <i>Pseudomonas fluorescens</i> populations. <i>Biology Letters</i> , 2006, 2, 236-238.	1.0	63
45	Changes in C uptake in populations of <i>Chlamydomonas reinhardtii</i> selected at high CO ₂ . <i>Plant, Cell and Environment</i> , 2006, 29, 1812-1819.	2.8	63
46	Experimental evolution in <i>Chlamydomonas</i> II. Genetic variation in strongly contrasted environments. <i>Heredity</i> , 1997, 78, 498-506.	1.2	61
47	Recombination and the immortality of the germ line. <i>Journal of Evolutionary Biology</i> , 1988, 1, 67-82.	0.8	58
48	Measuring the cost of reproduction. <i>Oecologia</i> , 1984, 64, 81-86.	0.9	56
49	MEASURING THE COST OF REPRODUCTION. II. THE CORRELATION STRUCTURE OF THE LIFE TABLES OF FIVE FRESHWATER INVERTEBRATES. <i>Evolution; International Journal of Organic Evolution</i> , 1984, 38, 314-326.	1.1	55
50	CO ₂ alters community composition and response to nutrient enrichment of freshwater phytoplankton. <i>Oecologia</i> , 2015, 177, 875-883.	0.9	53
51	Divergent evolution during an experimental adaptive radiation. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2003, 270, 1645-1650.	1.2	52
52	Resource competition and adaptive radiation in a microbial microcosm. <i>Ecology Letters</i> , 2004, 8, 38-46.	3.0	52
53	The small-scale spatial distribution of male and female plants. <i>Oecologia</i> , 1989, 80, 229-235.	0.9	51
54	THE COMPARATIVE EVIDENCE RELATING TO FUNCTIONAL AND NEUTRAL INTERPRETATIONS OF BIOLOGICAL COMMUNITIES. <i>Ecology</i> , 2006, 87, 1378-1386.	1.5	49

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55	Cross-Cordillera exchange mediated by the Panama Canal increased the species richness of local freshwater fish assemblages. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2004, 271, 1889-1896.	1.2	46
56	Community rescue in experimental phytoplankton communities facing severe herbicide pollution. <i>Nature Ecology and Evolution</i> , 2020, 4, 578-588.	3.4	45
57	Long-term culture at elevated atmospheric CO ₂ fails to evoke specific adaptation in seven freshwater phytoplankton species. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2013, 280, 20122598.	1.2	42
58	Partitioning the transplant site effect in reciprocal transplant experiments with <i>Impatiens capensis</i> and <i>Impatiens pallida</i> . <i>Oecologia</i> , 1986, 70, 149-154.	0.9	39
59	NOTE. ISOLATION OF FOUR NEW STRAINS OF CHLAMYDOMONAS REINHARDTII (CHLOROPHYTA) FROM SOIL SAMPLES1. <i>Journal of Phycology</i> , 1994, 30, 770-773.	1.0	39
60	Experimental genomics of fitness in yeast. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2010, 277, 1459-1467.	1.2	38
61	THE HANDICAP PRINCIPLE IN SEXUAL SELECTION. <i>Evolution; International Journal of Organic Evolution</i> , 1978, 32, 872-885.	1.1	37
62	EXPERIMENTAL EVOLUTION OF HETEROTROPHY IN A GREEN ALGA. <i>Evolution; International Journal of Organic Evolution</i> , 2013, 67, 468-476.	1.1	33
63	THE ECOLOGY AND GENETICS OF FITNESS IN <i>CHLAMYDOMONAS</i> . V. THE RELATIONSHIP BETWEEN GENETIC CORRELATION AND ENVIRONMENTAL VARIANCE. <i>Evolution; International Journal of Organic Evolution</i> , 1992, 46, 561-566.	1.1	32
64	Experimental adaptation to marine conditions by a freshwater alga. <i>Evolution; International Journal of Organic Evolution</i> , 2015, 69, 2662-2675.	1.1	27
65	The Ecology and Genetics of Fitness in <i>Chlamydomonas</i> III. Genotype-By- Environment Interaction Within Strains. <i>Evolution; International Journal of Organic Evolution</i> , 1991, 45, 668.	1.1	25
66	Experimental evolution in <i>Chlamydomonas</i> . III. Evolution of specialist and generalist types in environments that vary in space and time. <i>Heredity</i> , 1997, 78, 507-514.	1.2	25
67	REWINDING THE TAPE: SELECTION OF ALGAE ADAPTED TO HIGH CO ₂ AT CURRENT AND PLEISTOCENE LEVELS OF CO ₂ . <i>Evolution; International Journal of Organic Evolution</i> , 2006, 60, 1392-1401.	1.1	24
68	Measuring the cost of reproduction. <i>Oecologia</i> , 1983, 60, 378-383.	0.9	23
69	Patterns of population structure and complex haplotype sharing among field isolates of the green alga <i>Chlamydomonas reinhardtii</i> . <i>Molecular Ecology</i> , 2019, 28, 3977-3993.	2.0	23
70	Trophic structure modulates community rescue following acidification. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20190856.	1.2	22
71	THE ECOLOGY AND GENETICS OF FITNESS IN <i>CHLAMYDOMONAS</i> . IV. THE PROPERTIES OF MIXTURES OF GENOTYPES OF THE SAME SPECIES. <i>Evolution; International Journal of Organic Evolution</i> , 1991, 45, 1036-1046.	1.1	20
72	THE ECOLOGY AND GENETICS OF FITNESS IN <i>CHLAMYDOMONAS</i> . IX. THE RATE OF ACCUMULATION OF VARIATION OF FITNESS UNDER SELECTION. <i>Evolution; International Journal of Organic Evolution</i> , 2000, 54, 416-424.	1.1	20

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73	THE ECOLOGY AND GENETICS OF FITNESS IN CHLAMYDOMONAS. XIII. FITNESS OF LONG-TERM SEXUAL AND ASEYUAL POPULATIONS IN BENIGN ENVIRONMENTS. <i>Evolution; International Journal of Organic Evolution</i> , 2006, 60, 2272-2279.	1.1	19
74	Evolutionary rescue of a green alga kept in the dark. <i>Biology Letters</i> , 2013, 9, 20120823.	1.0	19
75	The ghosts of selection past reduces the probability of plastic rescue but increases the likelihood of evolutionary rescue to novel stressors in experimental populations of wild yeast. <i>Ecology Letters</i> , 2016, 19, 289-298.	3.0	19
76	Yeasts from temperate forests. <i>Yeast</i> , 2022, 39, 4-24.	0.8	18
77	OPTIMALITY AND CONSTRAINT IN A SELF-FERTILIZED ALGA. <i>Evolution; International Journal of Organic Evolution</i> , 1986, 40, 194-198.	1.1	16
78	Metabolic variation in natural populations of wild yeast. <i>Ecology and Evolution</i> , 2015, 5, 722-732.	0.8	16
79	The ecology and genetics of fitness in forest plants. IV. Quantitative genetics of fitness components in <i>Impatiens pallida</i> (Balsaminaceae). , 1994, 81, 232.		16
80	Red Queen versus Tangled Bank models. <i>Nature</i> , 1987, 330, 118-118.	13.7	15
81	THE DYNAMICS OF DIVERSIFICATION IN EVOLVING PSEUDOMONAS POPULATIONS. <i>Evolution; International Journal of Organic Evolution</i> , 2006, 60, 484-490.	1.1	14
82	THE ECOLOGY AND GENETICS OF FITNESS IN <i>CHLAMYDOMONAS</i> III. GENOTYPE-BY-ENVIRONMENT INTERACTION WITHIN STRAINS. <i>Evolution; International Journal of Organic Evolution</i> , 1991, 45, 668-679.	1.1	13
83	The ecology and genetics of fitness in forest plants. IV. Quantitative genetics of fitness components in <i>Impatiens pallida</i> (Balsaminaceae). <i>American Journal of Botany</i> , 1994, 81, 232-239.	0.8	13
84	The Ecology and Genetics of Fitness in <i>Chlamydomonas</i> . V. The Relationship between Genetic Correlation and Environmental Variance. <i>Evolution; International Journal of Organic Evolution</i> , 1992, 46, 561.	1.1	12
85	Tests of sib diversification theories of outcrossing in <i>Impatiens capensis</i> : Effects of inbreeding and neighbour relatedness on production and infestation. <i>Journal of Evolutionary Biology</i> , 1992, 5, 575-588.	0.8	12
86	Pathogen evolution within host individuals as a primary cause of senescence. <i>Genetica</i> , 1993, 91, 21-34.	0.5	12
87	Communities that thrive in extreme conditions captured from a freshwater lake. <i>Biology Letters</i> , 2016, 12, 20160562.	1.0	12
88	Resistance, resilience, and functional redundancy of freshwater bacterioplankton communities facing a gradient of agricultural stressors in a mesocosm experiment. <i>Molecular Ecology</i> , 2021, 30, 4771-4788.	2.0	12
89	Widespread agrochemicals differentially affect zooplankton biomass and community structure. <i>Ecological Applications</i> , 2021, 31, e02423.	1.8	12
90	REPLY TO REZNICK ET AL.. <i>Evolution; International Journal of Organic Evolution</i> , 1986, 40, 1344-1346.	1.1	10

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91	THE ECOLOGY AND GENETICS OF FITNESS IN <i>CHLAMYDOMONAS</i> . VII. THE EFFECT OF SEX ON THE VARIANCE IN FITNESS AND MEAN FITNESS. <i>Evolution; International Journal of Organic Evolution</i> , 1996, 50, 1705-1713.	1.1	10
92	Experimental macroevolution. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2016, 283, 20152547.	1.2	10
93	DEVELOPMENTAL MUTANTS OF <i>VOLVOX</i> : DOES MUTATION RECREATE THE PATTERNS OF PHYLOGENETIC DIVERSITY?. <i>Evolution; International Journal of Organic Evolution</i> , 1991, 45, 1806-1822.	1.1	8
94	Sources of variance in protein heterozygosity: the importance of the species-protein interaction. <i>Heredity</i> , 1992, 68, 241-252.	1.2	7
95	TRANSPOSON ABUNDANCE IN SEXUAL AND ASEQUAL POPULATIONS OF <i>CHLAMYDOMONAS REINHARDTII</i> . <i>Evolution; International Journal of Organic Evolution</i> , 1994, 48, 1406-1409.	1.1	7
96	The incidental response to uniform natural selection. <i>Biology Letters</i> , 2013, 9, 20130215.	1.0	6
97	Variation in growth rate in a natural assemblage of unicellular green soil algae. <i>Heredity</i> , 2001, 87, 162-171.	1.2	5
98	THE ECOLOGY AND GENETICS OF FITNESS IN <i>CHLAMYDOMONAS</i> . XII. REPEATED SEXUAL EPISODES INCREASE RATES OF ADAPTATION TO NOVEL ENVIRONMENTS. <i>Evolution; International Journal of Organic Evolution</i> , 2002, 56, 1743.	1.1	4
99	The poverty of the protists. , 2001, , 46-58.		3
100	Response to Hancock. <i>Microbiology (United Kingdom)</i> , 2003, 149, 3344-3345.	0.7	3
101	The phylogenetic interpretation of biological surveys. <i>Oikos</i> , 2013, 122, 1380-1392.	1.2	3
102	Trophic dynamics of a simple model ecosystem. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017, 284, 20171463.	1.2	3
103	Every inch a finch: a commentary on Grant (1993) "Hybridization of Darwin's finches on Isla Daphne Major, Galapagos". <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2015, 370, 20140287.	1.8	2
104	U-shaped gene frequency distributions. <i>Nature</i> , 1977, 268, 374-374.	13.7	1
105	III.6. Responses to Selection: Experimental Populations. , 2013, , 230-237.		1
106	Further observations on the fate of morphological variation in a population of Smooth newt larvae (<i>Triturus vulgaris</i>). <i>Journal of Zoology</i> , 2009, 185, 511-518.	0.8	0
107	The succession of minima in the abundance of species. <i>Oikos</i> , 2010, 119, 1936-1946.	1.2	0
108	Evolution-proof Antibiotics: Response to Uecker. <i>Trends in Microbiology</i> , 2018, 26, 970-971.	3.5	0