Michael A Brockhurst

List of Publications by Year
in descending order

136 papers	10,001 citations	36303 51 h-index	45317 90 g-index
145 all docs	145 docs citations	145 times ranked	10535 citing authors

#	Article	IF	Citations
1	Ecological and evolutionary solutions to the plasmid paradox. Trends in Microbiology, 2022, 30, 534-543.	7.7	62
2	Why do plasmids manipulate the expression of bacterial phenotypes?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2022, 377, 20200461.	4.0	28
3	Experimental evolution of local adaptation under unidimensional and multidimensional selection. Current Biology, 2022, 32, 1310-1318.e4.	3.9	6
4	Hostâ€“parasite coevolution: Backseat drivers take the wheel at the Red Queenâ€™s race. Current Biology, 2022, 32, R316-R317.	3.9	0
5	Compost spatial heterogeneity promotes evolutionary diversification of a bacterium. Journal of Evolutionary Biology, 2021, 34, 246-255.	1.7	5
6	Bacteria-Phage Antagonistic Coevolution and the Implications for Phage Therapy. , 2021, , 231-251.		3
7	The proficiency of the original host species determines community-level plasmid dynamics. FEMS Microbiology Ecology, 2021, 97, .	2.7	17
8	Limited and Strain-Specific Transcriptional and Growth Responses to Acquisition of a Multidrug Resistance Plasmid in Genetically Diverse Escherichia coli Lineages. MSystems, 2021, 6, .	3.8	23
9	Positive Selection Inhibits Plasmid Coexistence in Bacterial Genomes. MBio, 2021, 12, .	4.1	16
10	The dilution effect limits plasmid horizontal transmission in multispecies bacterial communities. Microbiology (United Kingdom), 2021, 167, .	1.8	12
11	Rapid compensatory evolution can rescue low fitness symbioses following partner switching. Current Biology, 2021, 31, 3721-3728.e4.	3.9	7
12	Plasmid fitness costs are caused by specific genetic conflicts enabling resolution by compensatory mutation. PLoS Biology, 2021, 19, e3001225.	5.6	79
13	Functional diversity increases the efficacy of phage combinations. Microbiology (United Kingdom), 2021, 167, .	1.8	8
14	Comparison of Independent Evolutionary Origins Reveals Both Convergence and Divergence in the Metabolic Mechanisms of Symbiosis. Current Biology, 2020, 30, 328-334.e4.	3.9	13
15	The Impact of Mercury Selection and Conjugative Genetic Elements on Community Structure and Resistance Gene Transfer. Frontiers in Microbiology, 2020, 11, 1846.	3.5	15
16	Eco-evolutionary Dynamics Set the Tempo and Trajectory of Metabolic Evolution in Multispecies Communities. Current Biology, 2020, 30, 4984-4988.e4.	3.9	17
17	The evolution of host resistance and parasite infectivity is highest in seasonal resource environments that oscillate at intermediate amplitudes. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200787.	2.6	6
18	The Hypercomplex Genome of an Insect Reproductive Parasite Highlights the Importance of Lateral Gene Transfer in Symbiont Biology. MBio, 2020, 11, .	4.1	14

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19	Extremely fast amelioration of plasmid fitness costs by multiple functionally diverse pathways. Microbiology (United Kingdom), 2020, 166, 56-62.	1.8	55
20	The role of exploitation in the establishment of mutualistic microbial symbioses. FEMS Microbiology Letters, 2019, 366, .	1.8	23
21	The Ecology and Evolution of Pangenomes. Current Biology, 2019, 29, R1094-R1103.	3.9	206
22	Temperate Bacteriophages from Chronic Pseudomonas aeruginosa Lung Infections Show Disease-Specific Changes in Host Range and Modulate Antimicrobial Susceptibility. MSystems, 2019, 4, .	3.8	38
23	Assessing evolutionary risks of resistance for new antimicrobial therapies. Nature Ecology and Evolution, 2019, 3, 515-517.	7.8	37
24	Mobile Compensatory Mutations Promote Plasmid Survival. MSystems, 2019, 4, .	3.8	34
25	Resistance Evolution against Phage Combinations Depends on the Timing and Order of Exposure. MBio, 2019, 10, .	4.1	90
26	Transposable temperate phages promote the evolution of divergent social strategies in <i>Pseudomonas aeruginosa</i> populations. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191794.	2.6	13
27	Temporal dynamics of bacteria-plasmid coevolution under antibiotic selection. ISME Journal, 2019, 13, 559-562.	9.8	27
28	Plasmid stability is enhanced by higher-frequency pulses of positive selection. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20172497.	2.6	24
29	Variable plasmid fitness effects and mobile genetic element dynamics across Pseudomonas species. FEMS Microbiology Ecology, 2018, 94, .	2.7	70
30	Can We Manipulate the Evolutionary Biology of Pathogens for Clinical Benefit?. American Journal of Respiratory Cell and Molecular Biology, 2018, 59, 143-144.	2.9	1
31	Competitive species interactions constrain abiotic adaptation in a bacterial soil community. Evolution Letters, 2018, 2, 580-589.	3.3	37
32	Cross-resistance is modular in bacteriaâ€“phage interactions. PLoS Biology, 2018, 16, e2006057.	5.6	84
33	Migration promotes plasmid stability under spatially heterogeneous positive selection. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20180324.	2.6	8
34	Variation and asymmetry in host-symbiont dependence in a microbial symbiosis. BMC Evolutionary Biology, 2018, 18, 108.	3.2	14
35	Transmission and lineage displacement drive rapid population genomic flux in cystic fibrosis airway infections of a Pseudomonas aeruginosa epidemic strain. Microbial Genomics, 2018, 4, .	2.0	19
36	Conflicting selection alters the trajectory of molecular evolution in a tripartite bacteriaâ€“plasmidâ€“phage interaction. Molecular Ecology, 2017, 26, 2757-2764.	3.9	22

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37	The evolution of plasmid stability: Are infectious transmission and compensatory evolution competing evolutionary trajectories?. Plasmid, 2017, 91, 90-95.	1.4	51
38	Gene mobility promotes the spread of resistance in bacterial populations. ISME Journal, 2017, 11, 1930-1932.	9.8	80
39	Defining the functional traits that drive bacterial decomposer community productivity. ISME Journal, 2017, 11, 1680-1687.	9.8	39
40	Sampling the mobile gene pool: innovation via horizontal gene transfer in bacteria. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160424.	4.0	162
41	Ecological and Evolutionary Benefits of Temperate Phage: What Does or Doesn't Kill You Makes You Stronger. BioEssays, 2017, 39, 1700112.	2.5	166
42	Positive selection inhibits gene mobilization and transfer in soil bacterial communities. Nature Ecology and Evolution, 2017, 1, 1348-1353.	7.8	63
43	Adaptive modulation of antibiotic resistance through intragenomic coevolution. Nature Ecology and Evolution, 2017, 1, 1364-1369.	7.8	72
44	High virulence sub-populations in Pseudomonas aeruginosa long-term cystic fibrosis airway infections. BMC Microbiology, 2017, 17, 30.	3.3	44
45	Evolutionary diversification of Pseudomonas aeruginosa in an artificial sputum model. BMC Microbiology, 2017, 17, 3.	3.3	38
46	Bacteria-Phage Antagonistic Coevolution and the Implications for Phage Therapy. , 2017, , 1-21.		12
47	Sourceâ€“sink plasmid transfer dynamics maintain gene mobility in soil bacterial communities. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8260-8265.	7.1	158
48	Temperate phages both mediate and drive adaptive evolution in pathogen biofilms. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8266-8271.	7.1	102
49	Temperate phages enhance pathogen fitness in chronic lung infection. ISME Journal, 2016, 10, 2553-2555.	9.8	69
50	Metabolic constraints for a novel symbiosis. Royal Society Open Science, 2016, 3, 150708.	2.4	5
51	Ecological conditions determine extinction risk in co-evolving bacteria-phage populations. BMC Evolutionary Biology, 2016, 16, 227.	3.2	13
52	Rapid compensatory evolution promotes the survival of conjugative plasmids. Mobile Genetic Elements, 2016, 6, e1179074.	1.8	49
53	Host control and nutrient trading in a photosynthetic symbiosis. Journal of Theoretical Biology, 2016, 405, 82-93.	1.7	21
54	Multi-host environments select for host-generalist conjugative plasmids. BMC Evolutionary Biology, 2016, 16, 70.	3.2	19

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55	Selective Conditions for a Multidrug Resistance Plasmid Depend on the Sociality of Antibiotic Resistance. Antimicrobial Agents and Chemotherapy, 2016, 60, 2524-2527.	3.2	39
56	Shining a Light on Exploitative Host Control in a Photosynthetic Endosymbiosis. Current Biology, 2016, 26, 207-211.	3.9	83
57	Rapid evolution of microbe-mediated protection against pathogens in a worm host. ISME Journal, 2016, 10, 1915-1924.	9.8	165
58	Conjugation is necessary for a bacterial plasmid to survive under protozoan predation. Biology Letters, 2016, 12, 20150953.	2.3	28
59	Pseudomonas aeruginosa Evolutionary Adaptation and Diversification in Cystic Fibrosis Chronic Lung Infections. Trends in Microbiology, 2016, 24, 327-337.	7.7	588
60	Refined analyses suggest that recombination is a minor source of genomic diversity in Pseudomonas aeruginosa chronic cystic fibrosis infections. Microbial Genomics, 2016, 2, e000051.	2.0	11
61	Environmentally coâ€occurring mercury resistance plasmids are genetically and phenotypically diverse and confer variable contextâ€dependent fitness effects. Environmental Microbiology, 2015, 17, 5008-5022.	3.8	68
62	A rapid and costâ€effective quantitative microsatellite genotyping protocol to estimate intraspecific competition in protist microcosm experiments. Methods in Ecology and Evolution, 2015, 6, 315-323.	5.2	6
63	Plasmid carriage can limit bacteriaâ€"phage coevolution. Biology Letters, 2015, 11, 20150361.	2.3	17
64	Evolutionary rescue can be impeded by temporary environmental amelioration. Ecology Letters, 2015, 18, 892-898.	6.4	36
65	Coevolution can explain defensive secondary metabolite diversity in plants. New Phytologist, 2015, 208, 1251-1263.	7.3	71
66	Hybridization in Parasites: Consequences for Adaptive Evolution, Pathogenesis, and Public Health in a Changing World. PLoS Pathogens, 2015, 11, e1005098.	4.7	108
67	Experimental evolution can unravel the complex causes of natural selection in clinical infections. Microbiology (United Kingdom), 2015, 161, 1175-1179.	1.8	4
68	Lytic activity by temperate phages of <i>Pseudomonas aeruginosa</i> in long-term cystic fibrosis chronic lung infections. ISME Journal, 2015, 9, 1391-1398.	9.8	70
69	Divergent, Coexisting <i>Pseudomonas aeruginosa</i> Lineages in Chronic Cystic Fibrosis Lung Infections. American Journal of Respiratory and Critical Care Medicine, 2015, 191, 775-785.	5.6	148
70	Evolutionary resurrection of flagellar motility via rewiring of the nitrogen regulation system. Science, 2015, 347, 1014-1017.	12.6	61
71	Social Evolution: Slimy Cheats Pay a Price. Current Biology, 2015, 25, R378-R381.	3.9	5
72	Bacteriophages Limit the Existence Conditions for Conjugative Plasmids. MBio, 2015, 6, e00586.	4.1	41

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73	Negative frequency-dependent selection is intensified at higher population densities in protist populations. Biology Letters, 2015, 11, 20150192.	2.3	7
74	Parallel Compensatory Evolution Stabilizes Plasmids across the Parasitism-Mutualism Continuum. Current Biology, 2015, 25, 2034-2039.	3.9	225
75	The effects of spatial structure, frequency dependence and resistance evolution on the dynamics of toxinâ€mediated microbial invasions. Evolutionary Applications, 2015, 8, 738-750.	3.1	26
76	Evolutionary rewiring of bacterial regulatory networks. Microbial Cell, 2015, 2, 256-258.	3.2	4
77	The Evolution and Genetics of Virus Host Shifts. PLoS Pathogens, 2014, 10, e1004395.	4.7	291
78	Editorial overview: Viral evolution: exploring the frontiers of virus evolution in the lab, the field and the clinic. Current Opinion in Virology, 2014, 8, ix-x.	5.4	0
79	Hybridization facilitates evolutionary rescue. Evolutionary Applications, 2014, 7, 1209-1217.	3.1	71
80	Bacteriaâ€"phage coevolution as a driver of ecological and evolutionary processes in microbial communities. FEMS Microbiology Reviews, 2014, 38, 916-931.	8.6	614
81	Running with the Red Queen: the role of biotic conflicts in evolution. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141382.	2.6	225
82	Evidence that Intraspecific Trait Variation among Nasal Bacteria Shapes the Distribution of Staphylococcus aureus. Infection and Immunity, 2014, 82, 3811-3815.	2.2	16
83	The effect of hybrid transgression on environmental tolerance in experimental yeast crosses. Journal of Evolutionary Biology, 2014, 27, 2507-2519.	1.7	41
84	Viral host-adaptation: insights from evolution experiments with phages. Current Opinion in Virology, 2013, 3, 572-577.	5.4	21
85	Sub-inhibitory concentrations of some antibiotics can drive diversification of Pseudomonas aeruginosa populations in artificial sputum medium. BMC Microbiology, 2013, 13, 170.	3.3	35
86	Does chemical defence increase niche space? A phylogenetic comparative analysis of the Musteloidea. Evolutionary Ecology, 2013, 27, 863-881.	1.2	22
87	Experimental coevolution of species interactions. Trends in Ecology and Evolution, 2013, 28, 367-375.	8.7	180
88	First steps in experimental cancer evolution. Evolutionary Applications, 2013, 6, 535-548.	3.1	25
89	Rapidly fluctuating environments constrain coevolutionary arms races by impeding selective sweeps. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20130937.	2.6	41
90	Variation in Streptococcus pneumoniae susceptibility to human antimicrobial peptides may mediate intraspecific competition. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 3803-3811.	2.6	32

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91	Therapeutic antimicrobial peptides may compromise natural immunity. Biology Letters, 2012, 8, 416-418.	2.3	120
92	Plasmid-mediated horizontal gene transfer is a coevolutionary process. Trends in Microbiology, 2012, 20, 262-267.	7.7	280
93	Differential infection properties of three inducible prophages from an epidemic strain of Pseudomonas aeruginosa. BMC Microbiology, 2012, 12, 216.	3.3	43
94	Bacteriaâ€“Virus Coevolution. Advances in Experimental Medicine and Biology, 2012, 751, 347-370.	1.6	56
95	TWO-STEP INFECTION PROCESSES CAN LEAD TO COEVOLUTION BETWEEN FUNCTIONALLY INDEPENDENT INFECTION AND RESISTANCE PATHWAYS. Evolution; International Journal of Organic Evolution, 2012, 66, 2030-2041.	2.3	57
96	<i>Pseudomonas aeruginosa</i> Population Diversity and Turnover in Cystic Fibrosis Chronic Infections. American Journal of Respiratory and Critical Care Medicine, 2011, 183, 1674-1679.	5.6	229
97	Nextâ€generation sequencing as a tool to study microbial evolution. Molecular Ecology, 2011, 20, 972-980.	3.9	66
98	Sex, Death, and the Red Queen. Science, 2011, 333, 166-167.	12.6	21
99	Coevolving parasites enhance the diversity-decreasing effect of dispersal. Biology Letters, 2011, 7, 578-580.	2.3	17
100	Antagonistic coevolution across productivity gradients: an experimental test of the effects of dispersal. Journal of Evolutionary Biology, 2010, 23, 207-211.	1.7	26
101	Using Microbial Microcosms to Study Hostâ€“parasite Coevolution. Evolution: Education and Outreach, 2010, 3, 14-18.	0.8	5
102	THE DUAL BENEFITS OF APOSEMATISM: PREDATOR AVOIDANCE AND ENHANCED RESOURCE COLLECTION. Evolution; International Journal of Organic Evolution, 2010, 64, 1622-1633.	2.3	49
103	HOW DOES SPATIAL DISPERSAL NETWORK AFFECT THE EVOLUTION OF PARASITE LOCAL ADAPTATION?. Evolution; International Journal of Organic Evolution, 2010, 64, 1795-1801.	2.3	23
104	Antagonistic coevolution accelerates molecular evolution. Nature, 2010, 464, 275-278.	27.8	492
105	The Evolution of Hostâ€Parasite Range. American Naturalist, 2010, 176, 63-71.	2.1	68
106	Ecological drivers of the evolution of publicâ€goods cooperation in bacteria. Ecology, 2010, 91, 334-340.	3.2	65
107	The Beagle in a bottle. Nature, 2009, 457, 824-829.	27.8	185
108	Dispersal and natural enemies interact to drive spatial synchrony and decrease stability in patchy populations. Ecology Letters, 2009, 12, 1194-1200.	6.4	41

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109	Source Populations Act as Coevolutionary Pacemakers in Experimental Selection Mosaics Containing Hotspots and Coldspots. American Naturalist, 2009, 173, E171-E176.	2.1	30
110	Inverseâ€Geneâ€forâ€Gene Infection Genetics and Coevolutionary Dynamics. American Naturalist, 2009, 174, E230-E242.	2.1	75
111	The role of specialist parasites in structuring host communities. Ecological Research, 2008, 23, 795-804.	1.5	25
112	Resource supply and the evolution of public-goods cooperation in bacteria. BMC Biology, 2008, 6, 20.	3.8	95
113	THE INTERACTIVE EFFECTS OF PARASITES, DISTURBANCE, AND PRODUCTIVITY ON EXPERIMENTAL ADAPTIVE RADIATIONS. Evolution; International Journal of Organic Evolution, 2008, 62, 467-477.	2.3	36
114	Diversity and productivity peak at intermediate dispersal rate in evolving metacommunities. Nature, 2008, 452, 210-214.	27.8	174
115	Kin selection and the evolution of virulence. Heredity, 2008, 100, 484-488.	2.6	136
116	The impact of parasite dispersal on antagonistic hostâ€“parasite coevolution. Journal of Evolutionary Biology, 2008, 21, 1252-1258.	1.7	32
117	Niche Occupation Limits Adaptive Radiation in Experimental Microcosms. PLoS ONE, 2007, 2, e193.	2.5	72
118	Population Bottlenecks Promote Cooperation in Bacterial Biofilms. PLoS ONE, 2007, 2, e634.	2.5	41
119	Epistatic Interactions Alter Dynamics of Multilocus Gene-for-Gene Coevolution. PLoS ONE, 2007, 2, e1156.	2.5	12
120	Experimental coevolution with bacteria and phage. Infection, Genetics and Evolution, 2007, 7, 547-552.	2.3	124
121	Experimental adaptation to high and low quality environments under different scales of temporal variation. Journal of Evolutionary Biology, 2007, 20, 296-300.	1.7	57
122	THE IMPACT OF MIGRATION FROM PARASITE-FREE PATCHES ON ANTAGONISTIC HOST-PARASITE COEVOLUTION. Evolution; International Journal of Organic Evolution, 2007, 61, 1238-1243.	2.3	30
123	THE EVOLUTION OF SPECIFICITY IN EVOLVING AND COEVOLVING ANTAGONISTIC INTERACTIONS BETWEEN A BACTERIA AND ITS PHAGE. Evolution; International Journal of Organic Evolution, 2007, 62, 071115145922001-???.	2.3	157
124	Siderophore-mediated cooperation and virulence in Pseudomonas aeruginosa. FEMS Microbiology Ecology, 2007, 62, 135-141.	2.7	146
125	Differential impact of simultaneous migration on coevolving hosts and parasites. BMC Evolutionary Biology, 2007, 7, 1.	3.2	348
126	Cooperation Peaks at Intermediate Disturbance. Current Biology, 2007, 17, 761-765.	3.9	122

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127	Ecology: Death and Destruction Determine Diversity. Current Biology, 2007, 17, R512-R514.	3.9	3
128	The impact of phages on interspecific competition in experimental populations of bacteria. BMC Ecology, 2006, 6, 19.	3.0	48
129	Spatial heterogeneity and the stability of host-parasite coexistence. Journal of Evolutionary Biology, 2006, 19, 374-379.	1.7	90
130	Character Displacement Promotes Cooperation in Bacterial Biofilms. Current Biology, 2006, 16, 2030-2034.	3.9	108
131	Antagonistic coevolution with parasites increases the cost of host deleterious mutations. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 45-49.	2.6	90
132	The use of model<i>Pseudomonas fluorescens</i>populations to study the causes and consequences of microbial diversity. , 2005, , 83-99.		0
133	RAMP resistance. Nature, 2005, 438, 170-171.	27.8	11
134	The effect of a bacteriophage on diversification of the opportunistic bacterial pathogen, Pseudomonas aeruginosa. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 1385-1391.	2.6	129
135	The effect of spatial heterogeneity and parasites on the evolution of host diversity. Proceedings of the Royal Society B: Biological Sciences, 2004, 271, 107-111.	2.6	105
136	Population mixing accelerates coevolution. Ecology Letters, 2003, 6, 975-979.	6.4	127