Michael A Brockhurst

List of Publications by Year
in descending order

136	10,001	36303 51	45317 90
papers	citations	h-index	g-index

145	145	145	10535
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bacteriaâ€“phage coevolution as a driver of ecological and evolutionary processes in microbial communities. FEMS Microbiology Reviews, 2014, 38, 916-931.	8.6	614
2	Pseudomonas aeruginosa Evolutionary Adaptation and Diversification in Cystic Fibrosis Chronic Lung Infections. Trends in Microbiology, 2016, 24, 327-337.	7.7	588
3	Antagonistic coevolution accelerates molecular evolution. Nature, 2010, 464, 275-278.	27.8	492
4	Differential impact of simultaneous migration on coevolving hosts and parasites. BMC Evolutionary Biology, 2007, 7, 1.	3.2	348
5	The Evolution and Genetics of Virus Host Shifts. PLoS Pathogens, 2014, 10, e1004395.	4.7	291
6	Plasmid-mediated horizontal gene transfer is a coevolutionary process. Trends in Microbiology, 2012, 20, 262-267.	7.7	280
7	Pseudomonas aeruginosa Population Diversity and Turnover in Cystic Fibrosis Chronic Infections. American Journal of Respiratory and Critical Care Medicine, 2011, 183, 1674-1679.	5.6	229
8	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
9	Parallel Compensatory Evolution Stabilizes Plasmids across the Parasitism-Mutualism Continuum. Current Biology, 2015, 25, 2034-2039.	3.9	225
10	The Ecology and Evolution of Pangenomes. Current Biology, 2019, 29, R1094-R1103.	3.9	206
11	The Beagle in a bottle. Nature, 2009, 457, 824-829.	27.8	185
12	Experimental coevolution of species interactions. Trends in Ecology and Evolution, 2013, 28, 367-375.	8.7	180
13	Diversity and productivity peak at intermediate dispersal rate in evolving metacommunities. Nature, 2008, 452, 210-214.	27.8	174
14	Ecological and Evolutionary Benefits of Temperate Phage: What Does or Doesn't Kill You Makes You Stronger. BioEssays, 2017, 39, 1700112.	2.5	166
15	Rapid evolution of microbe-mediated protection against pathogens in a worm host. ISME Journal, 2016, 10, 1915-1924.	9.8	165
16	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
17	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
18	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

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19	Divergent, Coexisting Pseudomonas aeruginosa Lineages in Chronic Cystic Fibrosis Lung Infections. American Journal of Respiratory and Critical Care Medicine, 2015, 191, 775-785.	5.6	148
20	Siderophore-mediated cooperation and virulence in Pseudomonas aeruginosa. FEMS Microbiology Ecology, 2007, 62, 135-141.	2.7	146
21	Kin selection and the evolution of virulence. Heredity, 2008, 100, 484-488.	2.6	136
22	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
23	Population mixing accelerates coevolution. Ecology Letters, 2003, 6, 975-979.	6.4	127
24	Experimental coevolution with bacteria and phage. Infection, Genetics and Evolution, 2007, 7, 547-552.	2.3	124
25	Cooperation Peaks at Intermediate Disturbance. Current Biology, 2007, 17, 761-765.	3.9	122
26	Therapeutic antimicrobial peptides may compromise natural immunity. Biology Letters, 2012, 8, 416-418.	2.3	120
27	Character Displacement Promotes Cooperation in Bacterial Biofilms. Current Biology, 2006, 16, 2030-2034.	3.9	108
28	Hybridization in Parasites: Consequences for Adaptive Evolution, Pathogenesis, and Public Health in a Changing World. PLoS Pathogens, 2015, 11, e1005098.	4.7	108
29	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
30	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
31	Resource supply and the evolution of public-goods cooperation in bacteria. BMC Biology, 2008, 6, 20.	3.8	95
32	Spatial heterogeneity and the stability of host-parasite coexistence. Journal of Evolutionary Biology, 2006, 19, 374-379.	1.7	90
33	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
34	Resistance Evolution against Phage Combinations Depends on the Timing and Order of Exposure. MBio, 2019, 10, .	4.1	90
35	Cross-resistance is modular in bacteriaâ€“phage interactions. PLoS Biology, 2018, 16, e2006057.	5.6	84
36	Shining a Light on Exploitative Host Control in a Photosynthetic Endosymbiosis. Current Biology, 2016, 26, 207-211.	3.9	83

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37	Gene mobility promotes the spread of resistance in bacterial populations. ISME Journal, 2017, 11, 1930-1932.	9.8	80
38	Plasmid fitness costs are caused by specific genetic conflicts enabling resolution by compensatory mutation. PLoS Biology, 2021, 19, e3001225.	5.6	79
39	Inverseâ€Geneâ€forâ€Gene Infection Genetics and Coevolutionary Dynamics. American Naturalist, 2009, 174, E230-E242.	2.1	75
40	Niche Occupation Limits Adaptive Radiation in Experimental Microcosms. PLoS ONE, 2007, 2, e193.	2.5	72
41	Adaptive modulation of antibiotic resistance through intragenomic coevolution. Nature Ecology and Evolution, 2017, 1, 1364-1369.	7.8	72
42	Hybridization facilitates evolutionary rescue. Evolutionary Applications, 2014, 7, 1209-1217.	3.1	71
43	Coevolution can explain defensive secondary metabolite diversity in plants. New Phytologist, 2015, 208, 1251-1263.	7.3	71
44	Lytic activity by temperate phages of Pseudomonas aeruginosa in long-term cystic fibrosis chronic lung infections. ISME Journal, 2015, 9, 1391-1398.	9.8	70
45	Variable plasmid fitness effects and mobile genetic element dynamics across Pseudomonas species. FEMS Microbiology Ecology, 2018, 94, .	2.7	70
46	Temperate phages enhance pathogen fitness in chronic lung infection. ISME Journal, 2016, 10, 2553-2555.	9.8	69
47	The Evolution of Hostâ€Parasite Range. American Naturalist, 2010, 176, 63-71.	2.1	68
48	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
49	Nextâ€generation sequencing as a tool to study microbial evolution. Molecular Ecology, 2011, 20, 972-980.	3.9	66
50	Ecological drivers of the evolution of publicâ€goods cooperation in bacteria. Ecology, 2010, 91, 334-340.	3.2	65
51	Positive selection inhibits gene mobilization and transfer in soil bacterial communities. Nature Ecology and Evolution, 2017, 1, 1348-1353.	7.8	63
52	Ecological and evolutionary solutions to the plasmid paradox. Trends in Microbiology, 2022, 30, 534-543.	7.7	62
53	Evolutionary resurrection of flagellar motility via rewiring of the nitrogen regulation system. Science, 2015, 347, 1014-1017.	12.6	61
54	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

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55	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
56	Bacteriaâ€“Virus Coevolution. Advances in Experimental Medicine and Biology, 2012, 751, 347-370.	1.6	56
57	Extremely fast amelioration of plasmid fitness costs by multiple functionally diverse pathways. Microbiology (United Kingdom), 2020, 166, 56-62.	1.8	55
58	The evolution of plasmid stability: Are infectious transmission and compensatory evolution competing evolutionary trajectories?. Plasmid, 2017, 91, 90-95.	1.4	51
59	THE DUAL BENEFITS OF APOSEMATISM: PREDATOR AVOIDANCE AND ENHANCED RESOURCE COLLECTION. Evolution; International Journal of Organic Evolution, 2010, 64, 1622-1633.	2.3	49
60	Rapid compensatory evolution promotes the survival of conjugative plasmids. Mobile Genetic Elements, 2016, 6, e1179074.	1.8	49
61	The impact of phages on interspecific competition in experimental populations of bacteria. BMC Ecology, 2006, 6, 19.	3.0	48
62	High virulence sub-populations in Pseudomonas aeruginosa long-term cystic fibrosis airway infections. BMC Microbiology, 2017, 17, 30.	3.3	44
63	Differential infection properties of three inducible prophages from an epidemic strain of Pseudomonas aeruginosa. BMC Microbiology, 2012, 12, 216.	3.3	43
64	Population Bottlenecks Promote Cooperation in Bacterial Biofilms. PLoS ONE, 2007, 2, e634.	2.5	41
65	Dispersal and natural enemies interact to drive spatial synchrony and decrease stability in patchy populations. Ecology Letters, 2009, 12, 1194-1200.	6.4	41
66	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
67	The effect of hybrid transgression on environmental tolerance in experimental yeast crosses. Journal of Evolutionary Biology, 2014, 27, 2507-2519.	1.7	41
68	Bacteriophages Limit the Existence Conditions for Conjugative Plasmids. MBio, 2015, 6, e00586.	4.1	41
69	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
70	Defining the functional traits that drive bacterial decomposer community productivity. ISME Journal, 2017, 11, 1680-1687.	9.8	39
71	Evolutionary diversification of Pseudomonas aeruginosa in an artificial sputum model. BMC Microbiology, 2017, 17, 3.	3.3	38
72	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

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73	Competitive species interactions constrain abiotic adaptation in a bacterial soil community. Evolution Letters, 2018, 2, 580-589.	3.3	37
74	Assessing evolutionary risks of resistance for new antimicrobial therapies. Nature Ecology and Evolution, 2019, 3, 515-517.	7.8	37
75	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
76	Evolutionary rescue can be impeded by temporary environmental amelioration. Ecology Letters, 2015, 18, 892-898.	6.4	36
77	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
78	Mobile Compensatory Mutations Promote Plasmid Survival. MSystems, 2019, 4, .	3.8	34
79	The impact of parasite dispersal on antagonistic hostâ€“parasite coevolution. Journal of Evolutionary Biology, 2008, 21, 1252-1258.	1.7	32
80	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
81	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
82	Source Populations Act as Coevolutionary Pacemakers in Experimental Selection Mosaics Containing Hotspots and Coldspots. American Naturalist, 2009, 173, E171-E176.	2.1	30
83	Conjugation is necessary for a bacterial plasmid to survive under protozoan predation. Biology Letters, 2016, 12, 20150953.	2.3	28
84	Why do plasmids manipulate the expression of bacterial phenotypes?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2022, 377, 20200461.	4.0	28
85	Temporal dynamics of bacteria-plasmid coevolution under antibiotic selection. ISME Journal, 2019, 13, 559-562.	9.8	27
86	Antagonistic coevolution across productivity gradients: an experimental test of the effects of dispersal. Journal of Evolutionary Biology, 2010, 23, 207-211.	1.7	26
87	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
88	The role of specialist parasites in structuring host communities. Ecological Research, 2008, 23, 795-804.	1.5	25
89	First steps in experimental cancer evolution. Evolutionary Applications, 2013, 6, 535-548.	3.1	25
90	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

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91	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
92	The role of exploitation in the establishment of mutualistic microbial symbioses. FEMS Microbiology Letters, 2019, 366, .	1.8	23
93	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
94	Does chemical defence increase niche space? A phylogenetic comparative analysis of the Musteloidea. Evolutionary Ecology, 2013, 27, 863-881.	1.2	22
95	Conflicting selection alters the trajectory of molecular evolution in a tripartite bacteriaâ€“plasmidâ€“phage interaction. Molecular Ecology, 2017, 26, 2757-2764.	3.9	22
96	Sex, Death, and the Red Queen. Science, 2011, 333, 166-167.	12.6	21
97	Viral host-adaptation: insights from evolution experiments with phages. Current Opinion in Virology, 2013, 3, 572-577.	5.4	21
98	Host control and nutrient trading in a photosynthetic symbiosis. Journal of Theoretical Biology, 2016, 405, 82-93.	1.7	21
99	Multi-host environments select for host-generalist conjugative plasmids. BMC Evolutionary Biology, 2016, 16, 70.	3.2	19
100	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
101	Coevolving parasites enhance the diversity-decreasing effect of dispersal. Biology Letters, 2011, 7, 578-580.	2.3	17
102	Plasmid carriage can limit bacteriaâ€“phage coevolution. Biology Letters, 2015, 11, 20150361.	2.3	17
103	Eco-evolutionary Dynamics Set the Tempo and Trajectory of Metabolic Evolution in Multispecies Communities. Current Biology, 2020, 30, 4984-4988.e4.	3.9	17
104	The proficiency of the original host species determines community-level plasmid dynamics. FEMS Microbiology Ecology, 2021, 97, .	2.7	17
105	Evidence that Intraspecific Trait Variation among Nasal Bacteria Shapes the Distribution of Staphylococcus aureus. Infection and Immunity, 2014, 82, 3811-3815.	2.2	16
106	Positive Selection Inhibits Plasmid Coexistence in Bacterial Genomes. MBio, 2021, 12, .	4.1	16
107	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
108	Variation and asymmetry in host-symbiont dependence in a microbial symbiosis. BMC Evolutionary Biology, 2018, 18, 108.	3.2	14

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109	The Hypercomplex Genome of an Insect Reproductive Parasite Highlights the Importance of Lateral Gene Transfer in Symbiont Biology. MBio, 2020, 11, .	4.1	14
110	Ecological conditions determine extinction risk in co-evolving bacteria-phage populations. BMC Evolutionary Biology, 2016, 16, 227.	3.2	13
111	Transposable temperate phages promote the evolution of divergent social strategies in Pseudomonas aeruginosa populations. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191794.	2.6	13
112	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
113	Epistatic Interactions Alter Dynamics of Multilocus Gene-for-Gene Coevolution. PLoS ONE, 2007, 2, e1156.	2.5	12
114	The dilution effect limits plasmid horizontal transmission in multispecies bacterial communities. Microbiology (United Kingdom), 2021, 167, .	1.8	12
115	Bacteria-Phage Antagonistic Coevolution and the Implications for Phage Therapy. , 2017, , 1-21.		12
116	RAMP resistance. Nature, 2005, 438, 170-171.	27.8	11
117	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
118	Migration promotes plasmid stability under spatially heterogeneous positive selection. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20180324.	2.6	8
119	Functional diversity increases the efficacy of phage combinations. Microbiology (United Kingdom), 2021, 167, .	1.8	8
120	Negative frequency-dependent selection is intensified at higher population densities in protist populations. Biology Letters, 2015, 11, 20150192.	2.3	7
121	Rapid compensatory evolution can rescue low fitness symbioses following partner switching. Current Biology, 2021, 31, 3721-3728.e4.	3.9	7
122	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
123	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
124	Experimental evolution of local adaptation under unidimensional and multidimensional selection. Current Biology, 2022, 32, 1310-1318.e4.	3.9	6
125	Using Microbial Microcosms to Study Hostâ€“parasite Coevolution. Evolution: Education and Outreach, 2010, 3, 14-18.	0.8	5
126	Social Evolution: Slimy Cheats Pay a Price. Current Biology, 2015, 25, R378-R381.	3.9	5

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127	Metabolic constraints for a novel symbiosis. Royal Society Open Science, 2016, 3, 150708.	2.4	5
128	Compost spatial heterogeneity promotes evolutionary diversification of a bacterium. Journal of Evolutionary Biology, 2021, 34, 246-255.	1.7	5
129	Experimental evolution can unravel the complex causes of natural selection in clinical infections. Microbiology (United Kingdom), 2015, 161, 1175-1179.	1.8	4
130	Evolutionary rewiring of bacterial regulatory networks. Microbial Cell, 2015, 2, 256-258.	3.2	4
131	Ecology: Death and Destruction Determine Diversity. Current Biology, 2007, 17, R512-R514.	3.9	3
132	Bacteria-Phage Antagonistic Coevolution and the Implications for Phage Therapy. , 2021, , 231-251.		3
133	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
134	The use of modelPseudomonas fluorescenspopulations to study the causes and consequences of microbial diversity. , 2005, , 83-99.		0
135	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
136	Hostâ€“parasite coevolution: Backseat drivers take the wheel at the Red Queenâ€™s race. Current Biology, 2022, 32, R316-R317.	3.9	0