Kevin R Foster

List of Publications by Year
in descending order

120 papers	16,715 citations	22548 61 h-index	25230 113 g-index
130 all docs	130 docs citations	130 times ranked	16620 citing authors

#	Article	IF	Citations
1	Bacterial species rarely work together. Science, 2022, 376, 581-582.	6.0	118
2	Reconfigurable Microfluidic Circuits for Isolating and Retrieving Cells of Interest. ACS Applied Materials & Interfaces, 2022, 14, 25209-25219.	4.0	1
3	Pleiotropic constraints promote the evolution of cooperation in cellular groups. PLoS Biology, 2022, 20, e3001626.	2.6	5
4	Host control and the evolution of cooperation in host microbiomes. Nature Communications, 2022, 13, .	5.8	22
5	Bacteria solve the problem of crowding by moving slowly. Nature Physics, 2021, 17, 205-210.	6.5	68
6	Droplet printing reveals the importance of micron-scale structure for bacterial ecology. Nature Communications, 2021, 12, 857.	5.8	48
7	Ecological rules for the assembly of microbiome communities. PLoS Biology, 2021, 19, e3001116.	2.6	67
8	The evolution of strategy in bacterial warfare via the regulation of bacteriocins and antibiotics. ELife, 2021, 10, .	2.8	40
9	Inhibiting bacterial cooperation is an evolutionarily robust anti-biofilm strategy. Nature Communications, 2020, 11, 107.	5.8	96
10	The evolution of tit-for-tat in bacteria via the type VI secretion system. Nature Communications, 2020, 11, 5395.	5.8	32
11	The evolution of the type VI secretion system as a disintegration weapon. PLoS Biology, 2020, 18, e3000720.	2.6	65
12	The Evolution of Mass Cell Suicide in Bacterial Warfare. Current Biology, 2020, 30, 2836-2843.e3.	1.8	34
13	Biofilm Bacteria Use Stress Responses to Detect and Respond to Competitors. Current Biology, 2020, 30, 1231-1244.e4.	1.8	65
14	Reply to: Broad definitions of enforcement are unhelpful for understanding evolutionary mechanisms of cooperation. Nature Ecology and Evolution, 2020, 4, 323-323.	3.4	1
15	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0
16	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0
17	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0
18	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0

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19	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0
20	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0
21	Bacteriophages benefit from generalized transduction. PLoS Pathogens, 2019, 15, e1007888.	2.1	69
22	Enforcement is central to the evolution of cooperation. Nature Ecology and Evolution, 2019, 3, 1018-1029.	3.4	61
23	The Evolution and Ecology of Bacterial Warfare. Current Biology, 2019, 29, R521-R537.	1.8	311
24	Why does the microbiome affect behaviour?. Nature Reviews Microbiology, 2018, 16, 647-655.	13.6	222
25	Bacteria Use Collective Behavior to Generate Diverse Combat Strategies. Current Biology, 2018, 28, 345-355.e4.	1.8	88
26	Cooperation, competition and antibiotic resistance in bacterial colonies. ISME Journal, 2018, 12, 1582-1593.	4.4	160
27	Rapid evolution of decreased host susceptibility drives a stable relationship between ultrasmall parasite TM7x and its bacterial host. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12277-12282.	3.3	59
28	Costs and benefits of provocation in bacterial warfare. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 7593-7598.	3.3	43
29	Reply to Baveye and Darnault: Useful models are simple and extendable. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2804-E2805.	3.3	4
30	The evolution of siderophore production as a competitive trait. Evolution; International Journal of Organic Evolution, 2017, 71, 1443-1455.	1.1	119
31	Microbial competition in porous environments can select against rapid biofilm growth. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E161-E170.	3.3	101
32	Cell morphology drives spatial patterning in microbial communities. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E280-E286.	3.3	136
33	Microfluidics with fluid walls. Nature Communications, 2017, 8, 816.	5.8	96
34	Competing species leave many potential niches unfilled. Nature Ecology and Evolution, 2017, 1, 1495-1501.	3.4	38
35	Assortment and the analysis of natural selection on social traits. Evolution; International Journal of Organic Evolution, 2017, 71, 2693-2702.	1.1	33
36	The evolution of the host microbiome as an ecosystem on a leash. Nature, 2017, 548, 43-51.	13.7	687

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37	Meeting Report on the ASM Conference on Mechanisms of Interbacterial Cooperation and Competition. Journal of Bacteriology, 2017, 199, e00403-17.	1.0	7
38	Ecology and multilevel selection explain aggression in spider colonies. Ecology Letters, 2016, 19, 873-879.	3.0	11
39	Single-cell twitching chemotaxis in developing biofilms. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6532-6537.	3.3	61
40	The evolution of cooperation within the gut microbiota. Nature, 2016, 533, 255-259.	13.7	483
41	The pUltra plasmid series: A robust and flexible tool for fluorescent labeling of Enterobacteria. Plasmid, 2016, 87-88, 65-71.	0.4	22
42	Spatial structure, cooperation and competition in biofilms. Nature Reviews Microbiology, 2016, 14, 589-600.	13.6	757
43	Pleiotropy and the low cost of individual traits promote cooperation. Evolution; International Journal of Organic Evolution, 2016, 70, 488-494.	1.1	25
44	Resource limitation drives spatial organization in microbial groups. ISME Journal, 2016, 10, 1471-1482.	4.4	131
45	Host Selection of Microbiota via Differential Adhesion. Cell Host and Microbe, 2016, 19, 550-559.	5.1	149
46	Experimental evolution in biofilm populations. FEMS Microbiology Reviews, 2016, 40, 373-397.	3.9	128
47	Rapid radiation in bacteria leads to a division of labour. Nature Communications, 2016, 7, 10508.	5.8	74
48	The Evolution of Quorum Sensing as a Mechanism to Infer Kinship. PLoS Computational Biology, 2016, 12, e1004848.	1.5	55
49	Biofilm Formation As a Response to Ecological Competition. PLoS Biology, 2015, 13, e1002191.	2.6	232
50	The ecology of the microbiome: Networks, competition, and stability. Science, 2015, 350, 663-666.	6.0	1,618
51	Antibiotics and the art of bacterial war. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10827-10828.	3.3	41
52	Migration and horizontal gene transfer divide microbial genomes into multiple niches. Nature Communications, 2015, 6, 8924.	5.8	112
53	Adhesion as a weapon in microbial competition. ISME Journal, 2015, 9, 139-149.	4.4	156
54	Importance of positioning for microbial evolution. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1639-47.	3.3	132

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55	Evolutionary limits to cooperation in microbial communities. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17941-17946.	3.3	178
56	Loss of Social Behaviours in Populations of Pseudomonas aeruginosa Infecting Lungs of Patients with Cystic Fibrosis. PLoS ONE, 2014, 9, e83124.	1.1	77
57	First principles of Hamiltonian medicine. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130366.	1.8	24
58	Evolution of Resistance to a Last-Resort Antibiotic in Staphylococcus aureus via Bacterial Competition. Cell, 2014, 158, 1060-1071.	13.5	178
59	The Genotypic View of Social Interactions in Microbial Communities. Annual Review of Genetics, 2013, 47, 247-273.	3.2	257
60	Competition sensing: the social side of bacterial stress responses. Nature Reviews Microbiology, 2013, 11, 285-293.	13.6	389
61	Improved use of a public good selects for the evolution of undifferentiated multicellularity. ELife, 2013, 2, e00367.	2.8	119
62	The Evolution of Mutualism in Gut Microbiota Via Host Epithelial Selection. PLoS Biology, 2012, 10, e1001424.	2.6	182
63	Nest value mediates reproductive decision making within termite societies. Behavioral Ecology, 2012, 23, 1203-1208.	1.0	5
64	Mutually helping microbes can evolve by hitchhiking. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19037-19038.	3.3	8
65	Competition, Not Cooperation, Dominates Interactions among Culturable Microbial Species. Current Biology, 2012, 22, 1845-1850.	1.8	572
66	Mucin Biopolymers Prevent Bacterial Aggregation by Retaining Cells in the Free-Swimming State. Current Biology, 2012, 22, 2325-2330.	1.8	103
67	The Secret Social Lives of Microorganisms. , 2012, , 77-83.		1
68	A molecular mechanism that stabilizes cooperative secretions in <i>Pseudomonas aeruginosa</i>. Molecular Microbiology, 2011, 79, 166-179.	1.2	261
69	The sociobiology of molecular systems. Nature Reviews Genetics, 2011, 12, 193-203.	7.7	65
70	Inclusive fitness theory and eusociality. Nature, 2011, 471, E1-E4.	13.7	339
71	Darwin's special difficulty: the evolution of â€œneuter insectsâ€•and current theory. Behavioral Ecology and Sociobiology, 2011, 65, 481-492.	0.6	36
72	A Quantitative Test of Population Genetics Using Spatiogenetic Patterns in Bacterial Colonies. American Naturalist, 2011, 178, 538-552.	1.0	94

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73	Social evolution in multispecies biofilms. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10839-10846.	3.3	213
74	Sucrose Utilization in Budding Yeast as a Model for the Origin of Undifferentiated Multicellularity. PLoS Biology, 2011, 9, e1001122.	2.6	189
75	Cooperation: The Secret Society ofÂSperm. Current Biology, 2010, 20, R314-R316.	1.8	12
76	Ecological competition favours cooperation in termite societies. Ecology Letters, 2010, 13, 754-760.	3.0	42
77	Social evolution theory: a review of methods and approaches. , 2010, , 132-158.		51
78	Social behaviour in microorganisms. , 2010, , 331-356.		18
79	Emergence of Spatial Structure in Cell Groups and the Evolution of Cooperation. PLoS Computational Biology, 2010, 6, e1000716.	1.5	314
80	The evolution of superstitious and superstition-like behaviour. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 31-37.	1.2	149
81	Social Evolution of Spatial Patterns in Bacterial Biofilms: When Conflict Drives Disorder. American Naturalist, 2009, 174, 1-12.	1.0	273
82	A Gene Necessary for Reproductive Suppression in Termites. Science, 2009, 324, 758-758.	6.0	98
83	The sociobiology of biofilms. FEMS Microbiology Reviews, 2009, 33, 206-224.	3.9	566
84	A Defense of Sociobiology. Cold Spring Harbor Symposia on Quantitative Biology, 2009, 74, 403-418.	2.0	38
85	The Evolution and Ecology of Cooperation â€“ History and Concepts. , 2008, , 1-36.		35
86	Social and individual learning of helping in humans and other species. Trends in Ecology and Evolution, 2008, 23, 664-671.	4.2	22
87	FLO1 Is a Variable Green Beard Gene that Drives Biofilm-like Cooperation in Budding Yeast. Cell, 2008, 135, 726-737.	13.5	398
88	Cultural Transmission Can Inhibit the Evolution of Altruistic Helping. American Naturalist, 2008, 172, 12-24.	1.0	96
89	Sperm Sociality: Cooperation, Altruism, and Spite. PLoS Biology, 2008, 6, e130.	2.6	76
90	The Evolution of Quorum Sensing in Bacterial Biofilms. PLoS Biology, 2008, 6, e14.	2.6	343

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91	Cooperation and conflict in microbial biofilms. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 876-881.	3.3	470
92	High relatedness maintains multicellular cooperation in a social amoeba by controlling cheater mutants. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8913-8917.	3.3	233
93	Exploiting new terrain: an advantage to sociality in the slime mold Dictyostelium discoideum. Behavioral Ecology, 2007, 18, 433-437.	1.0	42
94	Are mistakes inevitable? Sex allocation specialization by workers can reduce the genetic information needed to assess queen mating frequency. Journal of Theoretical Biology, 2007, 244, 470-477.	0.8	13
95	Species-level selection reduces selfishness through competitive exclusion. Journal of Evolutionary Biology, 2007, 20, 1459-1468.	0.8	34
96	Cooperation: Bridging Ecology and Sociobiology. Current Biology, 2007, 17, R319-R321.	1.8	14
97	What can microbial genetics teach sociobiology?. Trends in Genetics, 2007, 23, 74-80.	2.9	87
98	CONFLICT RESOLUTION IN INSECT SOCIETIES. Annual Review of Entomology, 2006, 51, 581-608.	5.7	547
99	Kin selection is the key to altruism. Trends in Ecology and Evolution, 2006, 21, 57-60.	4.2	342
100	There is nothing wrong with inclusive fitness. Trends in Ecology and Evolution, 2006, 21, 599-600.	4.2	55
101	A general model for the evolution of mutualisms. Journal of Evolutionary Biology, 2006, 19, 1283-1293.	0.8	292
102	Balancing synthesis with pluralism in sociobiology. Journal of Evolutionary Biology, 2006, 19, 1394-1396.	0.8	15
103	The Phoenix effect. Nature, 2006, 441, 291-292.	13.7	12
104	Do We Need to Put Society First? The Potential for Tragedy in Antimicrobial Resistance. PLoS Medicine, 2006, 3, e29.	3.9	92
105	Cheating can stabilize cooperation in mutualisms. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 2233-2239.	1.2	99
106	BIOMEDICINE: Hamiltonian Medicine: Why the Social Lives of Pathogens Matter. Science, 2005, 308, 1269-1270.	6.0	61
107	A new eusocial vertebrate?. Trends in Ecology and Evolution, 2005, 20, 363-364.	4.2	86
108	Can cuticular lipids provide sufficient information for withinâ€"colony nepotism in wasps?. Proceedings of the Royal Society B: Biological Sciences, 2004, 271, 745-753.	1.2	54

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109	Diminishing returns in social evolution: the not-so-tragic commons. Journal of Evolutionary Biology, 2004, 17, 1058-1072.	0.8	119
110	Pleiotropy as a mechanism to stabilize cooperation. Nature, 2004, 431, 693-696.	13.7	253
111	The costs and benefits of being a chimera. Proceedings of the Royal Society B: Biological Sciences, 2002, 269, 2357-2362.	1.2	112
112	Worker policing in the European hornet Vespa crabro. Insectes Sociaux, 2002, 49, 41-44.	0.7	63
113	Convergent evolution of worker policing by egg eating in the honeybee and common wasp. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 169-174.	1.2	130
114	Paternity, reproduction and conflict in vespine wasps: a model system for testing kin selection predictions. Behavioral Ecology and Sociobiology, 2001, 50, 1-8.	0.6	114
115	Colony kin structure and male production in Dolichovespula wasps. Molecular Ecology, 2001, 10, 1003-1010.	2.0	75
116	The Effect of Sexâ€Allocation Biasing on the Evolution of Worker Policing in Hymenopteran Societies. American Naturalist, 2001, 158, 615-623.	1.0	53
117	Do hornets have zombie workers?. Molecular Ecology, 2000, 9, 735-742.	2.0	62
118	Facultative worker policing in a wasp. Nature, 2000, 407, 692-693.	13.7	136
119	Spite in social insects. Trends in Ecology and Evolution, 2000, 15, 469-470.	4.2	21
120	Low paternity in the hornet Vespa crabro indicates that multiple mating by queens is derived in vespine wasps. Behavioral Ecology and Sociobiology, 1999, 46, 252-257.	0.6	83