

# Kevin R Foster

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9425423/publications.pdf>

Version: 2024-02-01

120  
papers

16,715  
citations

19657

61  
h-index

22166

113  
g-index

130  
all docs

130  
docs citations

130  
times ranked

14913  
citing authors

#	ARTICLE	IF	CITATIONS
1	The ecology of the microbiome: Networks, competition, and stability. <i>Science</i> , 2015, 350, 663-666.	12.6	1,618
2	Spatial structure, cooperation and competition in biofilms. <i>Nature Reviews Microbiology</i> , 2016, 14, 589-600.	28.6	757
3	The evolution of the host microbiome as an ecosystem on a leash. <i>Nature</i> , 2017, 548, 43-51.	27.8	687
4	Competition, Not Cooperation, Dominates Interactions among Culturable Microbial Species. <i>Current Biology</i> , 2012, 22, 1845-1850.	3.9	572
5	The sociobiology of biofilms. <i>FEMS Microbiology Reviews</i> , 2009, 33, 206-224.	8.6	566
6	CONFLICT RESOLUTION IN INSECT SOCIETIES. <i>Annual Review of Entomology</i> , 2006, 51, 581-608.	11.8	547
7	The evolution of cooperation within the gut microbiota. <i>Nature</i> , 2016, 533, 255-259.	27.8	483
8	Cooperation and conflict in microbial biofilms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 876-881.	7.1	470
9	FLO1 Is a Variable Green Beard Gene that Drives Biofilm-like Cooperation in Budding Yeast. <i>Cell</i> , 2008, 135, 726-737.	28.9	398
10	Competition sensing: the social side of bacterial stress responses. <i>Nature Reviews Microbiology</i> , 2013, 11, 285-293.	28.6	389
11	The Evolution of Quorum Sensing in Bacterial Biofilms. <i>PLoS Biology</i> , 2008, 6, e14.	5.6	343
12	Kin selection is the key to altruism. <i>Trends in Ecology and Evolution</i> , 2006, 21, 57-60.	8.7	342
13	Inclusive fitness theory and eusociality. <i>Nature</i> , 2011, 471, E1-E4.	27.8	339
14	Emergence of Spatial Structure in Cell Groups and the Evolution of Cooperation. <i>PLoS Computational Biology</i> , 2010, 6, e1000716.	3.2	314
15	The Evolution and Ecology of Bacterial Warfare. <i>Current Biology</i> , 2019, 29, R521-R537.	3.9	311
16	A general model for the evolution of mutualisms. <i>Journal of Evolutionary Biology</i> , 2006, 19, 1283-1293.	1.7	292
17	Social Evolution of Spatial Patterns in Bacterial Biofilms: When Conflict Drives Disorder. <i>American Naturalist</i> , 2009, 174, 1-12.	2.1	273
18	A molecular mechanism that stabilizes cooperative secretions in <i>Pseudomonas aeruginosa</i> . <i>Molecular Microbiology</i> , 2011, 79, 166-179.	2.5	261

#	ARTICLE	IF	CITATIONS
19	The Genotypic View of Social Interactions in Microbial Communities. Annual Review of Genetics, 2013, 47, 247-273.	7.6	257
20	Pleiotropy as a mechanism to stabilize cooperation. Nature, 2004, 431, 693-696.	27.8	253
21	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.	7.1	233
22	Biofilm Formation As a Response to Ecological Competition. PLoS Biology, 2015, 13, e1002191.	5.6	232
23	Why does the microbiome affect behaviour?. Nature Reviews Microbiology, 2018, 16, 647-655.	28.6	222
24	Social evolution in multispecies biofilms. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10839-10846.	7.1	213
25	Sucrose Utilization in Budding Yeast as a Model for the Origin of Undifferentiated Multicellularity. PLoS Biology, 2011, 9, e1001122.	5.6	189
26	The Evolution of Mutualism in Gut Microbiota Via Host Epithelial Selection. PLoS Biology, 2012, 10, e1001424.	5.6	182
27	Evolutionary limits to cooperation in microbial communities. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17941-17946.	7.1	178
28	Evolution of Resistance to a Last-Resort Antibiotic in Staphylococcus aureus via Bacterial Competition. Cell, 2014, 158, 1060-1071.	28.9	178
29	Cooperation, competition and antibiotic resistance in bacterial colonies. ISME Journal, 2018, 12, 1582-1593.	9.8	160
30	Adhesion as a weapon in microbial competition. ISME Journal, 2015, 9, 139-149.	9.8	156
31	The evolution of superstitious and superstition-like behaviour. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 31-37.	2.6	149
32	Host Selection of Microbiota via Differential Adhesion. Cell Host and Microbe, 2016, 19, 550-559.	11.0	149
33	Facultative worker policing in a wasp. Nature, 2000, 407, 692-693.	27.8	136
34	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.	7.1	136
35	Importance of positioning for microbial evolution. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1639-47.	7.1	132
36	Resource limitation drives spatial organization in microbial groups. ISME Journal, 2016, 10, 1471-1482.	9.8	131

#	ARTICLE	IF	CITATIONS
37	Convergent evolution of worker policing by egg eating in the honeybee and common wasp. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2001, 268, 169-174.	2.6	130
38	Experimental evolution in biofilm populations. <i>FEMS Microbiology Reviews</i> , 2016, 40, 373-397.	8.6	128
39	Diminishing returns in social evolution: the not-so-tragic commons. <i>Journal of Evolutionary Biology</i> , 2004, 17, 1058-1072.	1.7	119
40	Improved use of a public good selects for the evolution of undifferentiated multicellularity. <i>ELife</i> , 2013, 2, e00367.	6.0	119
41	The evolution of siderophore production as a competitive trait. <i>Evolution; International Journal of Organic Evolution</i> , 2017, 71, 1443-1455.	2.3	119
42	Bacterial species rarely work together. <i>Science</i> , 2022, 376, 581-582.	12.6	118
43	Paternity, reproduction and conflict in vespine wasps: a model system for testing kin selection predictions. <i>Behavioral Ecology and Sociobiology</i> , 2001, 50, 1-8.	1.4	114
44	The costs and benefits of being a chimera. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2002, 269, 2357-2362.	2.6	112
45	Migration and horizontal gene transfer divide microbial genomes into multiple niches. <i>Nature Communications</i> , 2015, 6, 8924.	12.8	112
46	Mucin Biopolymers Prevent Bacterial Aggregation by Retaining Cells in the Free-Swimming State. <i>Current Biology</i> , 2012, 22, 2325-2330.	3.9	103
47	Microbial competition in porous environments can select against rapid biofilm growth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E161-E170.	7.1	101
48	Cheating can stabilize cooperation in mutualisms. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2006, 273, 2233-2239.	2.6	99
49	A Gene Necessary for Reproductive Suppression in Termites. <i>Science</i> , 2009, 324, 758-758.	12.6	98
50	Cultural Transmission Can Inhibit the Evolution of Altruistic Helping. <i>American Naturalist</i> , 2008, 172, 12-24.	2.1	96
51	Microfluidics with fluid walls. <i>Nature Communications</i> , 2017, 8, 816.	12.8	96
52	Inhibiting bacterial cooperation is an evolutionarily robust anti-biofilm strategy. <i>Nature Communications</i> , 2020, 11, 107.	12.8	96
53	A Quantitative Test of Population Genetics Using Spatiogenetic Patterns in Bacterial Colonies. <i>American Naturalist</i> , 2011, 178, 538-552.	2.1	94
54	Do We Need to Put Society First? The Potential for Tragedy in Antimicrobial Resistance. <i>PLoS Medicine</i> , 2006, 3, e29.	8.4	92

#	ARTICLE	IF	CITATIONS
55	Bacteria Use Collective Behavior to Generate Diverse Combat Strategies. <i>Current Biology</i> , 2018, 28, 345-355.e4.	3.9	88
56	What can microbial genetics teach sociobiology?. <i>Trends in Genetics</i> , 2007, 23, 74-80.	6.7	87
57	A new eusocial vertebrate?. <i>Trends in Ecology and Evolution</i> , 2005, 20, 363-364.	8.7	86
58	Low paternity in the hornet <i>Vespa crabro</i> indicates that multiple mating by queens is derived in vespine wasps. <i>Behavioral Ecology and Sociobiology</i> , 1999, 46, 252-257.	1.4	83
59	Loss of Social Behaviours in Populations of <i>Pseudomonas aeruginosa</i> Infecting Lungs of Patients with Cystic Fibrosis. <i>PLoS ONE</i> , 2014, 9, e83124.	2.5	77
60	Sperm Sociality: Cooperation, Altruism, and Spite. <i>PLoS Biology</i> , 2008, 6, e130.	5.6	76
61	Colony kin structure and male production in <i>Dolichovespula</i> wasps. <i>Molecular Ecology</i> , 2001, 10, 1003-1010.	3.9	75
62	Rapid radiation in bacteria leads to a division of labour. <i>Nature Communications</i> , 2016, 7, 10508.	12.8	74
63	Bacteriophages benefit from generalized transduction. <i>PLoS Pathogens</i> , 2019, 15, e1007888.	4.7	69
64	Bacteria solve the problem of crowding by moving slowly. <i>Nature Physics</i> , 2021, 17, 205-210.	16.7	68
65	Ecological rules for the assembly of microbiome communities. <i>PLoS Biology</i> , 2021, 19, e3001116.	5.6	67
66	The sociobiology of molecular systems. <i>Nature Reviews Genetics</i> , 2011, 12, 193-203.	16.3	65
67	The evolution of the type VI secretion system as a disintegration weapon. <i>PLoS Biology</i> , 2020, 18, e3000720.	5.6	65
68	Biofilm Bacteria Use Stress Responses to Detect and Respond to Competitors. <i>Current Biology</i> , 2020, 30, 1231-1244.e4.	3.9	65
69	Worker policing in the European hornet <i>Vespa crabro</i> . <i>Insectes Sociaux</i> , 2002, 49, 41-44.	1.2	63
70	Do hornets have zombie workers?. <i>Molecular Ecology</i> , 2000, 9, 735-742.	3.9	62
71	BIOMEDICINE: Hamiltonian Medicine: Why the Social Lives of Pathogens Matter. <i>Science</i> , 2005, 308, 1269-1270.	12.6	61
72	Single-cell twitching chemotaxis in developing biofilms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 6532-6537.	7.1	61

#	ARTICLE	IF	CITATIONS
73	Enforcement is central to the evolution of cooperation. <i>Nature Ecology and Evolution</i> , 2019, 3, 1018-1029.	7.8	61
74	Rapid evolution of decreased host susceptibility drives a stable relationship between ultrasmall parasite TM7x and its bacterial host. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 12277-12282.	7.1	59
75	There is nothing wrong with inclusive fitness. <i>Trends in Ecology and Evolution</i> , 2006, 21, 599-600.	8.7	55
76	The Evolution of Quorum Sensing as a Mechanism to Infer Kinship. <i>PLoS Computational Biology</i> , 2016, 12, e1004848.	3.2	55
77	Can cuticular lipids provide sufficient information for within-colony nepotism in wasps?. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2004, 271, 745-753.	2.6	54
78	The Effect of Sex Allocation Biasing on the Evolution of Worker Policing in Hymenopteran Societies. <i>American Naturalist</i> , 2001, 158, 615-623.	2.1	53
79	Social evolution theory: a review of methods and approaches. , 2010, , 132-158.		51
80	Droplet printing reveals the importance of micron-scale structure for bacterial ecology. <i>Nature Communications</i> , 2021, 12, 857.	12.8	48
81	Costs and benefits of provocation in bacterial warfare. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 7593-7598.	7.1	43
82	Exploiting new terrain: an advantage to sociality in the slime mold <i>Dictyostelium discoideum</i> . <i>Behavioral Ecology</i> , 2007, 18, 433-437.	2.2	42
83	Ecological competition favours cooperation in termite societies. <i>Ecology Letters</i> , 2010, 13, 754-760.	6.4	42
84	Antibiotics and the art of bacterial war. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 10827-10828.	7.1	41
85	The evolution of strategy in bacterial warfare via the regulation of bacteriocins and antibiotics. <i>ELife</i> , 2021, 10, .	6.0	40
86	A Defense of Sociobiology. <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , 2009, 74, 403-418.	1.1	38
87	Competing species leave many potential niches unfilled. <i>Nature Ecology and Evolution</i> , 2017, 1, 1495-1501.	7.8	38
88	Darwin's special difficulty: the evolution of "neuter insects" and current theory. <i>Behavioral Ecology and Sociobiology</i> , 2011, 65, 481-492.	1.4	36
89	The Evolution and Ecology of Cooperation " History and Concepts. , 2008, , 1-36.		35
90	Species-level selection reduces selfishness through competitive exclusion. <i>Journal of Evolutionary Biology</i> , 2007, 20, 1459-1468.	1.7	34

#	ARTICLE	IF	CITATIONS
91	The Evolution of Mass Cell Suicide in Bacterial Warfare. <i>Current Biology</i> , 2020, 30, 2836-2843.e3.	3.9	34
92	Assortment and the analysis of natural selection on social traits. <i>Evolution; International Journal of Organic Evolution</i> , 2017, 71, 2693-2702.	2.3	33
93	The evolution of tit-for-tat in bacteria via the type VI secretion system. <i>Nature Communications</i> , 2020, 11, 5395.	12.8	32
94	Pleiotropy and the low cost of individual traits promote cooperation. <i>Evolution; International Journal of Organic Evolution</i> , 2016, 70, 488-494.	2.3	25
95	First principles of Hamiltonian medicine. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130366.	4.0	24
96	Social and individual learning of helping in humans and other species. <i>Trends in Ecology and Evolution</i> , 2008, 23, 664-671.	8.7	22
97	The pUltra plasmid series: A robust and flexible tool for fluorescent labeling of Enterobacteria. <i>Plasmid</i> , 2016, 87-88, 65-71.	1.4	22
98	Host control and the evolution of cooperation in host microbiomes. <i>Nature Communications</i> , 2022, 13, .	12.8	22
99	Spite in social insects. <i>Trends in Ecology and Evolution</i> , 2000, 15, 469-470.	8.7	21
100	Social behaviour in microorganisms. , 2010, , 331-356.		18
101	Balancing synthesis with pluralism in sociobiology. <i>Journal of Evolutionary Biology</i> , 2006, 19, 1394-1396.	1.7	15
102	Cooperation: Bridging Ecology and Sociobiology. <i>Current Biology</i> , 2007, 17, R319-R321.	3.9	14
103	Are mistakes inevitable? Sex allocation specialization by workers can reduce the genetic information needed to assess queen mating frequency. <i>Journal of Theoretical Biology</i> , 2007, 244, 470-477.	1.7	13
104	The Phoenix effect. <i>Nature</i> , 2006, 441, 291-292.	27.8	12
105	Cooperation: The Secret Society ofÂSperm. <i>Current Biology</i> , 2010, 20, R314-R316.	3.9	12
106	Ecology and multilevel selection explain aggression in spider colonies. <i>Ecology Letters</i> , 2016, 19, 873-879.	6.4	11
107	Mutually helping microbes can evolve by hitchhiking. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 19037-19038.	7.1	8
108	Meeting Report on the ASM Conference on Mechanisms of Interbacterial Cooperation and Competition. <i>Journal of Bacteriology</i> , 2017, 199, e00403-17.	2.2	7

#	ARTICLE	IF	CITATIONS
109	Nest value mediates reproductive decision making within termite societies. Behavioral Ecology, 2012, 23, 1203-1208.	2.2	5
110	Pleiotropic constraints promote the evolution of cooperation in cellular groups. PLoS Biology, 2022, 20, e3001626.	5.6	5
111	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.	7.1	4
112	Reply to: Broad definitions of enforcement are unhelpful for understanding evolutionary mechanisms of cooperation. Nature Ecology and Evolution, 2020, 4, 323-323.	7.8	1
113	The Secret Social Lives of Microorganisms. , 2012, , 77-83.		1
114	Reconfigurable Microfluidic Circuits for Isolating and Retrieving Cells of Interest. ACS Applied Materials & Interfaces, 2022, 14, 25209-25219.	8.0	1
115	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0
116	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0
117	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0
118	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0
119	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0
120	The evolution of the type VI secretion system as a disintegration weapon. , 2020, 18, e3000720.		0