William C Ratcliff

List of Publications by Year
in descending order

42 papers	1,968 citations	361045 20 h-index	288905 40 g-index
46 all docs	46 docs citations	46 times ranked	1595 citing authors

#	Article	IF	Citations
1	Experimental evolution is not just for model organisms. PLoS Biology, 2022, 20, e3001587.	2.6	3
2	Selective drivers of simple multicellularity. Current Opinion in Microbiology, 2022, 67, 102141.	2.3	29
3	Varied solutions to multicellularity: The biophysical and evolutionary consequences of diverse intercellular bonds. Biophysics Reviews, 2022, 3, .	1.0	11
4	Evolution of Cellular Differentiation: From Hypotheses to Models. Trends in Ecology and Evolution, 2021, 36, 49-60.	4.2	26
5	The Consequences of Budding versus Binary Fission on Adaptation and Aging in Primitive Multicellularity. Genes, 2021, 12, 661.	1.0	7
6	Oxygen suppression of macroscopic multicellularity. Nature Communications, 2021, 12, 2838.	5.8	30
7	Why have aggregative multicellular organisms stayed simple?. Current Genetics, 2021, 67, 871-876.	0.8	23
8	Lichens and microbial syntrophies offer models for an interdependent route to multicellularity. Lichenologist, 2021, 53, 283-290.	0.5	6
9	Ecological Advantages and Evolutionary Limitations of Aggregative Multicellular Development. Current Biology, 2020, 30, 4155-4164.e6.	1.8	31
10	Topological constraints in early multicellularity favor reproductive division of labor. ELife, 2020, 9, .	2.8	34
11	Drivers of Spatial Structure in Social Microbial Communities. Current Biology, 2019, 29, R545-R550.	1.8	56
12	Evolution of altruistic cooperation among nascent multicellular organisms. Evolution; International Journal of Organic Evolution, 2019, 73, 1012-1024.	1.1	7
13	Shortsighted Evolution Constrains the Efficacy of Long-Term Bet Hedging. American Naturalist, 2019, 193, 409-423.	1.0	9
14	Copper oxide nanoparticles promote the evolution of multicellularity in yeast. Nanotoxicology, 2019, 13, 597-605.	1.6	3
15	De novo origins of multicellularity in response to predation. Scientific Reports, 2019, 9, 2328.	1.6	107
16	Programmed cell death can increase the efficacy of microbial bet hedging. Scientific Reports, 2018, 8, 1120.	1.6	2
17	Genetics of a de novo origin of undifferentiated multicellularity. Royal Society Open Science, 2018, 5, 180912.	1.1	9
18	Trait heritability in major transitions. BMC Biology, 2018, 16, 145.	1.7	9

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19	Geometry, packing, and evolutionary paths to increased multicellular size. Physical Review E, 2018, 97, 050401.	0.8	14
20	Cellular packing, mechanical stressÂand the evolution of multicellularity. Nature Physics, 2018, 14, 286-290.	6.5	48
21	Division of Labor, Bet Hedging, and the Evolution of Mixed Biofilm Investment Strategies. MBio, 2017, 8, .	1.8	36
22	Nascent life cycles and the emergence of higher-level individuality. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160420.	1.8	32
23	Apoptosis in snowflake yeast: novel trait, or side effect of toxic waste?. Journal of the Royal Society Interface, 2016, 13, 20160121.	1.5	9
24	Stabilizing multicellularity through ratcheting. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150444.	1.8	29
25	An oscillating tragedy of the commons in replicator dynamics with game-environment feedback. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E7518-E7525.	3.3	168
26	Origins of multicellular evolvability in snowflake yeast. Nature Communications, 2015, 6, 6102.	5.8	133
27	Courting disaster: How diversification rate affects fitness under risk. Evolution; International Journal of Organic Evolution, 2015, 69, 126-135.	1.1	10
28	Geometry Shapes Evolution of Early Multicellularity. PLoS Computational Biology, 2014, 10, e1003803.	1.5	45
29	A Novel Laboratory Activity for Teaching about the Evolution of Multicellularity. American Biology Teacher, 2014, 76, 81-87.	0.1	15
30	Ratcheting the evolution of multicellularity. Science, 2014, 346, 426-427.	6.0	52
31	Experimental Evolution of Multicellular Complexity in Saccharomyces cerevisiae. BioScience, 2014, 64, 383-393.	2.2	12
32	Singleâ€strain inoculation may create spurious correlations between legume fitness and rhizobial fitness. New Phytologist, 2013, 198, 4-6.	3.5	40
33	Disentangling Direct and Indirect Fitness Effects of Microbial Dormancy. American Naturalist, 2013, 182, 147-156.	1.0	14
34	TEMPO AND MODE OF MULTICELLULAR ADAPTATION IN EXPERIMENTALLY EVOLVEDSACCHAROMYCES CEREVISIAE. Evolution; International Journal of Organic Evolution, 2013, 67, 1573-1581.	1.1	45
35	Experimental evolution of an alternating uni- and multicellular life cycle in Chlamydomonas reinhardtii. Nature Communications, 2013, 4, 2742.	5.8	146
36	Experimental evolution of multicellularity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1595-1600.	3.3	427

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37	Measuring the fitness of symbiotic rhizobia. Symbiosis, 2011, 55, 85-90.	1.2	33
38	Bacterial persistence and bet hedging in Sinorhizobium meliloti. Communicative and Integrative Biology, 2011, 4, 98-100.	0.6	4
39	Individual-Level Bet Hedging in the Bacterium Sinorhizobium meliloti. Current Biology, 2010, 20, 1740-1744.	1.8	77
40	When Stress Predicts a Shrinking Gene Pool, Trading Early Reproduction for Longevity Can Increase Fitness, Even with Lower Fecundity. PLoS ONE, 2009, 4, e6055.	1.1	12
41	Rhizobitoxine producers gain more poly-3-hydroxybutyrate in symbiosis than do competing rhizobia, but reduce plant growth. ISME Journal, 2009, 3, 870-872.	4.4	40
42	Poly-3-hydroxybutyrate (PHB) supports survival and reproduction in starving rhizobia. FEMS Microbiology Ecology, 2008, 65, 391-399.	1.3	123