Troy Day

List of Publications by Year in descending order

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143 papers	11,765 citations	25034 57 h-index	32842 100 g-index
148 all docs	148 docs citations	148 times ranked	10726 citing authors

#	Article	IF	Citations
1	The evolution of ageâ€specific choosiness when mating. Journal of Evolutionary Biology, 2021, 34, 477-485.	1.7	2
2	The origins and potential future of SARS-CoV-2 variants of concern in the evolving COVID-19 pandemic. Current Biology, 2021, 31, R918-R929.	3.9	246
3	Demystifying individual heterogeneity. Ecology Letters, 2021, 24, 2282-2297.	6.4	12
4	The economics of managing evolution. PLoS Biology, 2021, 19, e3001409.	5.6	6
5	The evolution of ageâ€specific choosiness and reproductive isolation in a model with overlapping generations. Evolution; International Journal of Organic Evolution, 2021, , .	2.3	0
6	Working in a bubble: How can businesses reopen while limiting the risk of COVID-19 outbreaks?. Cmaj, 2020, 192, E1362-E1366.	2.0	11
7	On the evolutionary epidemiology of SARS-CoV-2. Current Biology, 2020, 30, R849-R857.	3.9	160
8	The Price equation and evolutionary epidemiology. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190357.	4.0	20
9	Evolutionary consequences of feedbacks between within-host competition and disease control. Evolution, Medicine and Public Health, 2020, 2020, 30-34.	2.5	7
10	Density Dependence, Senescence, and Williamsâ€™ Hypothesis. Trends in Ecology and Evolution, 2020, 35, 300-302.	8.7	14
11	Nongenetic inheritance and multigenerational plasticity in the nematode C. elegans. ELife, 2020, 9, .	6.0	55
12	Poisson integral type quarantine in a stochastic SIR system. Mathematical Biosciences and Engineering, 2020, 17, 5534-5544.	1.9	0
13	Fighting the Public Health Burden of AIDS With the Human Pegivirus. American Journal of Epidemiology, 2019, 188, 1586-1594.	3.4	13
14	Why is sterility virulence most common in sexually transmitted infections? Examining the role of epidemiology. Evolution; International Journal of Organic Evolution, 2019, 73, 872-882.	2.3	4
15	Social evolution under demographic stochasticity. PLoS Computational Biology, 2019, 15, e1006739.	3.2	7
16	Managing Mareksâ€™s disease in the egg industry. Epidemics, 2019, 27, 52-58.	3.0	17
17	Pathogen evolution in finite populations: slow and steady spreads the best. Journal of the Royal Society Interface, 2018, 15, 20180135.	3.4	22
18	The Role of Phenotypic Plasticity in Moderating Evolutionary Conflict. American Naturalist, 2018, 192, 230-240.	2.1	5

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19	The industrialization of farming may be driving virulence evolution. Evolutionary Applications, 2017, 10, 189-198.	3.1	30
20	Female plasticity tends to reduce sexual conflict. Nature Ecology and Evolution, 2017, 1, 54.	7.8	9
21	Modeling stochastic anomalies in an SIS system. Stochastic Analysis and Applications, 2017, 35, 27-39.	1.5	2
22	Time-varying and state-dependent recovery rates in epidemiological models. Infectious Disease Modelling, 2017, 2, 419-430.	1.9	15
23	Resource limitation prevents the emergence of drug resistance by intensifying within-host competition. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13774-13779.	7.1	65
24	Does High-Dose Antimicrobial Chemotherapy Prevent the Evolution of Resistance?. PLoS Computational Biology, 2016, 12, e1004689.	3.2	115
25	The adaptive evolution of virulence: a review of theoretical predictions and empirical tests. Parasitology, 2016, 143, 915-930.	1.5	252
26	Forecasting Epidemiological and Evolutionary Dynamics of Infectious Diseases. Trends in Ecology and Evolution, 2016, 31, 776-788.	8.7	66
27	Interpreting phenotypic antibiotic tolerance and persister cells as evolution via epigenetic inheritance. Molecular Ecology, 2016, 25, 1869-1882.	3.9	35
28	Disease eradication on large industrial farms. Journal of Mathematical Biology, 2016, 73, 885-902.	1.9	13
29	Information entropy as a measure of genetic diversity and evolvability in colonization. Molecular Ecology, 2015, 24, 2073-2083.	3.9	14
30	Is selection relevant in the evolutionary emergence of drug resistance?. Trends in Microbiology, 2015, 23, 126-133.	7.7	83
31	Evolution of hosts paying manifold costs of defence. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20150065.	2.6	41
32	Pathogen evolution under host avoidance plasticity. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20151656.	2.6	8
33	The evolutionary advantage of haploid versus diploid microbes in nutrient-poor environments. Journal of Theoretical Biology, 2015, 383, 116-129.	1.7	6
34	Could the human papillomavirus vaccines drive virulence evolution?. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20141069.	2.6	29
35	The path of least resistance: aggressive or moderate treatment?. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20140566.	2.6	79
36	Sexually transmitted infection and the evolution of serial monogamy. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141726.	2.6	23

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37	A theoretical examination of the relative importance of evolution management and drug development for managing resistance. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141861.	2.6	42
38	Starvation reveals the cause of infection-induced castration and gigantism. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141087.	2.6	28
39	Disentangling the interaction among host resources, the immune system and pathogens. Ecology Letters, 2014, 17, 284-293.	6.4	126
40	IMMUNE EVASION AND THE EVOLUTION OF MOLECULAR MIMICRY IN PARASITES. Evolution; International Journal of Organic Evolution, 2013, 67, n/a-n/a.	2.3	19
41	Nongenetic inheritance and the evolution of costly female preference. Journal of Evolutionary Biology, 2013, 26, 76-87.	1.7	39
42	Aggressive Chemotherapy and the Selection of Drug Resistant Pathogens. PLoS Pathogens, 2013, 9, e1003578.	4.7	81
43	Inferring the causes of the three waves of the 1918 influenza pandemic in England and Wales. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20131345.	2.6	109
44	Computability, GÃ¶del's incompleteness theorem, and an inherent limit on the predictability of evolution. Journal of the Royal Society Interface, 2012, 9, 624-639.	3.4	16
45	The implications of nongenetic inheritance for evolution in changing environments. Evolutionary Applications, 2012, 5, 192-201.	3.1	291
46	THE EVOLUTIONARY EPIDEMIOLOGY OF MULTILOCUS DRUG RESISTANCE. Evolution; International Journal of Organic Evolution, 2012, 66, 1582-1597.	2.3	35
47	A Unified Approach to the Evolutionary Consequences of Genetic and Nongenetic Inheritance. American Naturalist, 2011, 178, E18-E36.	2.1	264
48	Causes of Variation in Malaria Infection Dynamics: Insights from Theory and Data. American Naturalist, 2011, 178, E174-E188.	2.1	26
49	Evolution in structured populations: beyond the kin versus group debate. Trends in Ecology and Evolution, 2011, 26, 193-201.	8.7	71
50	BRIDGING SCALES IN THE EVOLUTION OF INFECTIOUS DISEASE LIFE HISTORIES: APPLICATION. Evolution; International Journal of Organic Evolution, 2011, 65, 3298-3310.	2.3	40
51	BRIDGING SCALES IN THE EVOLUTION OF INFECTIOUS DISEASE LIFE HISTORIES: THEORY. Evolution; International Journal of Organic Evolution, 2011, 65, 3448-3461.	2.3	55
52	Inclusive fitness theory and eusociality. Nature, 2011, 471, E1-E4.	27.8	339
53	Evolutionary principles and their practical application. Evolutionary Applications, 2011, 4, 159-183.	3.1	230
54	Optimal control of epidemics with limited resources. Journal of Mathematical Biology, 2011, 62, 423-451.	1.9	147

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55	Mechanistic modelling of the three waves of the 1918 influenza pandemic. Theoretical Ecology, 2011, 4, 283-288.	1.0	41
56	The evolution of drug resistance and the curious orthodoxy of aggressive chemotherapy. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10871-10877.	7.1	237
57	Optimal antiviral treatment strategies and the effects of resistance. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 1082-1089.	2.6	21
58	Next-generation tools for evolutionary invasion analyses. Journal of the Royal Society Interface, 2010, 7, 561-571.	3.4	113
59	Risk factors for the evolutionary emergence of pathogens. Journal of the Royal Society Interface, 2010, 7, 1455-1474.	3.4	54
60	The Coevolution of Virulence: Tolerance in Perspective. PLoS Pathogens, 2010, 6, e1001006.	4.7	149
61	EDITORIAL: Editorial: evolutionary medicine special issue. Evolutionary Applications, 2009, 2, 7-10.	3.1	4
62	EVOLUTIONARY EPIDEMIOLOGY AND THE DYNAMICS OF ADAPTATION. Evolution; International Journal of Organic Evolution, 2009, 63, 826-838.	2.3	65
63	Nongenetic Inheritance and Its Evolutionary Implications. Annual Review of Ecology, Evolution, and Systematics, 2009, 40, 103-125.	8.3	524
64	Mathematical Techniques in the Evolutionary Epidemiology of Infectious Diseases. Series in Contemporary Applied Mathematics, 2009, , 136-149.	0.8	2
65	Hostâ€“parasite coevolution and patterns of adaptation across time and space. Journal of Evolutionary Biology, 2008, 21, 1861-1866.	1.7	210
66	REVOLUTIONARY INVASION ANALYSES. Evolution; International Journal of Organic Evolution, 2008, 62, 2709-2711.	2.3	0
67	Modelling malaria pathogenesis. Cellular Microbiology, 2008, 10, 1947-1955.	2.1	30
68	Epidemiological and evolutionary consequences of targeted vaccination. Molecular Ecology, 2008, 17, 485-499.	3.9	22
69	Why is HIV not vectorâ€borne?. Evolutionary Applications, 2008, 1, 17-27.	3.1	11
70	Linking within- and between-host dynamics in the evolutionary epidemiology of infectious diseases. Trends in Ecology and Evolution, 2008, 23, 511-517.	8.7	303
71	The evolutionary consequences of vaccination. Vaccine, 2008, 26, C1-C3.	3.8	9
72	Evidences of parasite evolution after vaccination. Vaccine, 2008, 26, C4-C7.	3.8	55

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73	Factors Affecting the Evolution of Bleaching Resistance in Corals. American Naturalist, 2008, 171, E72-E88.	2.1	42
74	Understanding and Predicting Strainâ€Specific Patterns of Pathogenesis in the Rodent MalariaPlasmodium chabaudi. American Naturalist, 2008, 172, E214-E238.	2.1	65
75	On the evolution of reproductive restraint in malaria. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 1217-1224.	2.6	53
76	Evolution of parasite virulence when host responses cause disease. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 2685-2692.	2.6	84
77	The evolutionary epidemiology of vaccination. Journal of the Royal Society Interface, 2007, 4, 803-817.	3.4	96
78	Sperm Competition and the Evolution of Ejaculate Composition. American Naturalist, 2007, 169, E158-E172.	2.1	94
79	Chapter 15: Analyzing Continuous Stochastic Modelsâ€“Diffusion in Time and Space. , 2007, , 649-691.		0
80	Chapter 11: Techniques for Analyzing Models with Periodic Behavior. , 2007, , 423-453.		0
81	Perfect reciprocity is the only evolutionarily stable strategy in the continuous iterated prisoner's dilemma. Journal of Theoretical Biology, 2007, 247, 11-22.	1.7	48
82	Evolution of cooperation in a finite homogeneous graph. Nature, 2007, 447, 469-472.	27.8	281
83	Applying populationâ€genetic models in theoretical evolutionary epidemiology. Ecology Letters, 2007, 10, 876-888.	6.4	138
84	From inclusive fitness to fixation probability in homogeneous structured populations. Journal of Theoretical Biology, 2007, 249, 101-110.	1.7	69
85	Chapter 12: Evolutionary Invasion Analysis. , 2007, , 454-566.		5
86	The evolutionary consequences of plasticity in hostâ€“pathogen interactions. Theoretical Population Biology, 2006, 69, 323-331.	1.1	29
87	The shaping of senescence in the wild. Trends in Ecology and Evolution, 2006, 21, 458-463.	8.7	207
88	Detecting sexual conflict and sexually antagonistic coevolution. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 277-285.	4.0	92
89	The evolutionary emergence of pandemic influenza. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 2945-2953.	2.6	19
90	When Is Quarantine a Useful Control Strategy for Emerging Infectious Diseases?. American Journal of Epidemiology, 2006, 163, 479-485.	3.4	127

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91	Insights from Priceâ€™s equation into evolutionary epidemiology. DIMACS Series in Discrete Mathematics and Theoretical Computer Science, 2006, , 23-43.	0.0	48
92	Population structure attributable to reproductive time: isolation by time and adaptation by time. Molecular Ecology, 2005, 14, 901-916.	3.9	349
93	THE EVOLUTION OF SPERM-ALLOCATION STRATEGIES AND THE DEGREE OF SPERM COMPETITION. Evolution; International Journal of Organic Evolution, 2005, 59, 492-499.	2.3	54
94	MODELLING THE ECOLOGICAL CONTEXT OF EVOLUTIONARY CHANGE: DÃ‰JÃ€ VU OR SOMETHING NEW?. , 2005, , 273-309.		17
95	The effect of disease life history on the evolutionary emergence of novel pathogens. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 1949-1956.	2.6	45
96	Escalation, Retreat, and Female Indifference as Alternative Outcomes of Sexually Antagonistic Coevolution. American Naturalist, 2005, 165, S5-S18.	2.1	100
97	Predicting Quarantine Failure Rates. Emerging Infectious Diseases, 2004, 10, 487-488.	4.3	3
98	Stability in negotiation games and the emergence of cooperation. Proceedings of the Royal Society B: Biological Sciences, 2004, 271, 669-674.	2.6	43
99	Competitive and Facilitative Evolutionary Diversification. BioScience, 2004, 54, 101.	4.9	90
100	Cooperate with thy neighbour?. Nature, 2004, 428, 611-612.	27.8	10
101	Intralocus Sexual Conflict Can Drive the Evolution of Genomic Imprinting. Genetics, 2004, 167, 1537-1546.	2.9	220
102	Modelling strategies for controlling SARS outbreaks. Proceedings of the Royal Society B: Biological Sciences, 2004, 271, 2223-2232.	2.6	304
103	A General Theory for the Evolutionary Dynamics of Virulence. American Naturalist, 2004, 163, E40-E63.	2.1	210
104	To Age or Not to Age--What Is the Question?. Science of Aging Knowledge Environment: SAGE KE, 2004, 2004, pe10-pe10.	0.8	0
105	Sexual conflict and indirect benefits. Journal of Evolutionary Biology, 2003, 16, 1055-1060.	1.7	136
106	Host mortality, predation and the evolution of parasite virulence. Ecology Letters, 2003, 6, 310-315.	6.4	51
107	ANTAGONISTIC PLEIOTROPY, MORTALITY SOURCE INTERACTIONS, AND THE EVOLUTIONARY THEORY OF SENESCENCE. Evolution; International Journal of Organic Evolution, 2003, 57, 1478-1488.	2.3	230
108	THE EVOLUTION OF STATIC ALLOMETRY IN SEXUALLY SELECTED TRAITS. Evolution; International Journal of Organic Evolution, 2003, 57, 2450-2458.	2.3	208

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109	A CONSIDERATION OF PATTERNS OF VIRULENCE ARISING FROM HOST-PARASITE COEVOLUTION. Evolution; International Journal of Organic Evolution, 2003, 57, 671-676.	2.3	52
110	Virulence evolution and the timing of disease life-history events. Trends in Ecology and Evolution, 2003, 18, 113-118.	8.7	125
111	Understanding and managing pathogen evolution: a way forward. Trends in Microbiology, 2003, 11, 206-207.	7.7	14
112	A Theoretical Investigation of the Evolution and Maintenance of Mirrorâ€Image Flowers. American Naturalist, 2003, 161, 916-930.	2.1	24
113	THE EVOLUTION OF STATIC ALLOMETRY IN SEXUALLY SELECTED TRAITS. Evolution; International Journal of Organic Evolution, 2003, 57, 2450.	2.3	8
114	Detecting sexually antagonistic coevolution with population crosses. Proceedings of the Royal Society B: Biological Sciences, 2003, 270, 2009-2016.	2.6	62
115	A CONSIDERATION OF PATTERNS OF VIRULENCE ARISING FROM HOST-PARASITE COEVOLUTION. Evolution; International Journal of Organic Evolution, 2003, 57, 671.	2.3	10
116	THE ROLE OF SIZE-SPECIFIC PREDATION IN THE EVOLUTION AND DIVERSIFICATION OF PREY LIFE HISTORIES. Evolution; International Journal of Organic Evolution, 2002, 56, 877.	2.3	2
117	Older males signal more reliably. Proceedings of the Royal Society B: Biological Sciences, 2002, 269, 2291-2299.	2.6	102
118	Developmental Thresholds and the Evolution of Reaction Norms for Age and Size at Lifeâ€History Transitions. American Naturalist, 2002, 159, 338-350.	2.1	275
119	The Evolution of Virulence in Vector-Borne and Directly Transmitted Parasites. Theoretical Population Biology, 2002, 62, 199-213.	1.1	44
120	On the evolution of virulence and the relationship between various measures of mortality. Proceedings of the Royal Society B: Biological Sciences, 2002, 269, 1317-1323.	2.6	145
121	Virulence evolution via host exploitation and toxin production in spore-producing pathogens. Ecology Letters, 2002, 5, 471-476.	6.4	82
122	THE ROLE OF SIZE-SPECIFIC PREDATION IN THE EVOLUTION AND DIVERSIFICATION OF PREY LIFE HISTORIES. Evolution; International Journal of Organic Evolution, 2002, 56, 877-887.	2.3	78
123	What can Invasion Analyses Tell us about Evolution under Stochasticity in Finite Populations?. Selection, 2002, 2, 2-15.	0.8	29
124	Optimal Size and Number of Propagules: Allowance for Discrete Stages and Effects of Maternal Size on Reproductive Output and Offspring Fitness. American Naturalist, 2001, 157, 387-407.	2.1	181
125	Population structure inhibits evolutionary diversification under competition for resources. Genetica, 2001, 112/113, 71-86.	1.1	46
126	PARASITE TRANSMISSION MODES AND THE EVOLUTION OF VIRULENCE. Evolution; International Journal of Organic Evolution, 2001, 55, 2389-2400.	2.3	129

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127	Interactions between sources of mortality and the evolution of parasite virulence. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 2331-2337.	2.6	52
128	POPULATION MIXING AND THE ADAPTIVE DIVERGENCE OF QUANTITATIVE TRAITS IN DISCRETE POPULATIONS: A THEORETICAL FRAMEWORK FOR EMPIRICAL TESTS. Evolution; International Journal of Organic Evolution, 2001, 55, 459-466.	2.3	23
129	Population structure inhibits evolutionary diversification under competition for resources. Contemporary Issues in Genetics and Evolution, 2001, , 71-86.	0.9	2
130	SEXUAL SELECTION AND THE EVOLUTION OF COSTLY FEMALE PREFERENCES: SPATIAL EFFECTS. Evolution; International Journal of Organic Evolution, 2000, 54, 715-730.	2.3	83
131	Questioning species realities. Conservation Genetics, 2000, 1, 67-76.	1.5	100
132	Competition and the Effect of Spatial Resource Heterogeneity on Evolutionary Diversification. American Naturalist, 2000, 155, 790-803.	2.1	94
133	A Generalization of Pontryagin's Maximum Principle for Dynamic Evolutionary Games among Relatives. Theoretical Population Biology, 2000, 57, 339-356.	1.1	22
134	Unifying Genetic and Game Theoretic Models of Kin Selection for Continuous Traits. Journal of Theoretical Biology, 1998, 194, 391-407.	1.7	52
135	The Evolution of Temporal Patterns of Selfishness, Altruism, and Group Cohesion. American Naturalist, 1998, 152, 102-113.	2.1	18
136	Von Bertalanffy's Growth Equation Should Not Be Used to Model Age and Size at Maturity. American Naturalist, 1997, 149, 381-393.	2.1	179
137	A TIME COMMITMENT HYPOTHESIS FOR SIZE-DEPENDENT GENDER ALLOCATION. Evolution; International Journal of Organic Evolution, 1997, 51, 988-993.	2.3	27
138	Hamilton's rule meets the Hamiltonian: kin selection on dynamic characters. Proceedings of the Royal Society B: Biological Sciences, 1997, 264, 639-644.	2.6	26
139	Evolutionary stability under the replicator and the gradient dynamics. Evolutionary Ecology, 1997, 11, 579-590.	1.2	51
140	The effect of behavioural and morphological plasticity on foraging efficiency in the threespine stickleback (Gasterosteus sp.). Oecologia, 1996, 108, 380-388.	2.0	121
141	The fitness of hybrids. Trends in Ecology and Evolution, 1995, 10, 288.	8.7	10
142	A Comparison of Two Sticklebacks. Evolution; International Journal of Organic Evolution, 1994, 48, 1723.	2.3	96
143	A COMPARISON OF TWO STICKLEBACKS. Evolution; International Journal of Organic Evolution, 1994, 48, 1723-1734.	2.3	149