Simon A Levin

List of Publications by Year
in descending order

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501 papers	68,187 citations	902 116 h-index	830 245 g-index
541 all docs	541 docs citations	541 times ranked	55420 citing authors

#	Article	IF	Citations
1	The Problem of Pattern and Scale in Ecology: The Robert H. MacArthur Award Lecture. Ecology, 1992, 73, 1943-1967.	1.5	5,366
2	Global trends in antimicrobial use in food animals. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5649-5654.	3.3	2,521
3	Effective leadership and decision-making in animal groups on the move. Nature, 2005, 433, 513-516.	13.7	2,214
4	Global increase and geographic convergence in antibiotic consumption between 2000 and 2015. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E3463-E3470.	3.3	1,907
5	Global antibiotic consumption 2000 to 2010: an analysis of national pharmaceutical sales data. Lancet Infectious Diseases, The, 2014, 14, 742-750.	4.6	1,719
6	Anticipating Critical Transitions. Science, 2012, 338, 344-348.	6.0	1,607
7	Economic Growth, Carrying Capacity, and the Environment. Science, 1995, 268, 520-521.	6.0	1,435
8	Ecosystems and the Biosphere as Complex Adaptive Systems. Ecosystems, 1998, 1, 431-436.	1.6	1,171
9	Towards a general theory of adaptive walks on rugged landscapes. Journal of Theoretical Biology, 1987, 128, 11-45.	0.8	1,127
10	Intertidal Landscapes: Disturbance and the Dynamics of Pattern. Ecological Monographs, 1981, 51, 145-178.	2.4	1,047
11	The Global Extent and Determinants of Savanna and Forest as Alternative Biome States. Science, 2011, 334, 230-232.	6.0	1,039
12	Marine Taxa Track Local Climate Velocities. Science, 2013, 341, 1239-1242.	6.0	1,025
13	Dispersion and Population Interactions. American Naturalist, 1974, 108, 207-228.	1.0	979
14	The Importance of Being Discrete (and Spatial). Theoretical Population Biology, 1994, 46, 363-394.	0.5	915
15	ECOLOGY: The Value of Nature and the Nature of Value. Science, 2000, 289, 395-396.	6.0	783
16	Disturbance, Patch Formation, and Community Structure. Proceedings of the National Academy of Sciences of the United States of America, 1974, 71, 2744-2747.	3.3	769
17	Optimal nitrogen-to-phosphorus stoichiometry of phytoplankton. Nature, 2004, 429, 171-174.	13.7	767
18	Trading-off fish biodiversity, food security, and hydropower in the Mekong River Basin. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5609-5614.	3.3	725

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19	Diffusion and Ecological Problems: Modern Perspectives. Interdisciplinary Applied Mathematics, 2001, , .	0.2	696
20	Influence of nonlinear incidence rates upon the behavior of SIRS epidemiological models. Journal of Mathematical Biology, 1986, 23, 187-204.	0.8	670
21	The Ecology and Evolution of Seed Dispersal: A Theoretical Perspective. Annual Review of Ecology, Evolution, and Systematics, 2003, 34, 575-604.	3.8	653
22	Ecology for bankers. Nature, 2008, 451, 893-894.	13.7	651
23	The Sustainable Biosphere Initiative: An Ecological Research Agenda: A Report from the Ecological Society of America. Ecology, 1991, 72, 371-412.	1.5	633
24	Dynamical behavior of epidemiological models with nonlinear incidence rates. Journal of Mathematical Biology, 1987, 25, 359-380.	0.8	630
25	Are We Consuming Too Much?. Journal of Economic Perspectives, 2004, 18, 147-172.	2.7	590
26	Community Equilibria and Stability, and an Extension of the Competitive Exclusion Principle. American Naturalist, 1970, 104, 413-423.	1.0	565
27	Mechanisms of long-distance dispersal of seeds by wind. Nature, 2002, 418, 409-413.	13.7	565
28	Comparing Classical Community Models: Theoretical Consequences for Patterns of Diversity. American Naturalist, 2002, 159, 1-23.	1.0	552
29	Social-ecological systems as complex adaptive systems: modeling and policy implications. Environment and Development Economics, 2013, 18, 111-132.	1.3	530
30	Economic growth, carrying capacity, and the environment. Ecological Economics, 1995, 15, 91-95.	2.9	521
31	Selection of Intermediate Rates of Increase in Parasite-Host Systems. American Naturalist, 1981, 117, 308-315.	1.0	477
32	Social norms as solutions. Science, 2016, 354, 42-43.	6.0	476
33	Does aquaculture add resilience to the global food system?. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13257-13263.	3.3	468
34	Reducing antimicrobial use in food animals. Science, 2017, 357, 1350-1352.	6.0	448
35	Dispersal strategies in patchy environments. Theoretical Population Biology, 1984, 26, 165-191.	0.5	444
36	Spread of invading organisms. Landscape Ecology, 1990, 4, 177-188.	1.9	440

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37	Strong latitudinal patterns in the elemental ratios of marine plankton and organic matter. Nature Geoscience, 2013, 6, 279-283.	5.4	432
38	Resilience, Robustness, and Marine Ecosystem-based Management. BioScience, 2008, 58, 27-32.	2.2	416
39	Stochastic Spatial Models: A User's Guide to Ecological Applications. Philosophical Transactions of the Royal Society B: Biological Sciences, 1994, 343, 329-350.	1.8	398
40	Phenotypic diversity and ecosystem functioning in changing environments: A theoretical framework. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 11376-11381.	3.3	395
41	A Theoretical Framework for Data Analysis of Wind Dispersal of Seeds and Pollen. Ecology, 1989, 70, 329-338.	1.5	379
42	The role of mosaic phenomena in natural communities. Theoretical Population Biology, 1977, 12, 117-139.	0.5	377
43	Uninformed Individuals Promote Democratic Consensus in Animal Groups. Science, 2011, 334, 1578-1580.	6.0	354
44	Mathematical and Computational Challenges in Population Biology and Ecosystems Science. Science, 1997, 275, 334-343.	6.0	351
45	The Evolution of Quorum Sensing in Bacterial Biofilms. PLoS Biology, 2008, 6, e14.	2.6	343
46	Visual sensory networks and effective information transfer in animal groups. Current Biology, 2013, 23, R709-R711.	1.8	343
47	Tree cover in sub-Saharan Africa: Rainfall and fire constrain forest and savanna as alternative stable states. Ecology, 2011, 92, 1063-1072.	1.5	342
48	Positive feedbacks promote power-law clustering of Kalahari vegetation. Nature, 2007, 449, 209-212.	13.7	337
49	Hypothesis for origin of planktonic patchiness. Nature, 1976, 259, 659-659.	13.7	335
50	From Individuals to Aggregations: the Interplay between Behavior and Physics. Journal of Theoretical Biology, 1999, 196, 397-454.	0.8	330
51	Looming Global-Scale Failures and Missing Institutions. Science, 2009, 325, 1345-1346.	6.0	317
52	Dynamical resonance can account for seasonality of influenza epidemics. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 16915-16916.	3.3	311
53	Evolution of human-driven fire regimes in Africa. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 847-852.	3.3	293
54	Allelopathy in Spatially Distributed Populations. Journal of Theoretical Biology, 1997, 185, 165-171.	0.8	283

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55	Coherence and Conservation. Science, 2000, 290, 1360-1364.	6.0	279
56	Our future in the Anthropocene biosphere. Ambio, 2021, 50, 834-869.	2.8	275
57	Resilience in natural and socioeconomic systems. Environment and Development Economics, 1998, 3, 221-262.	1.3	272
58	On the use of IPCC-class models to assess the impact of climate on Living Marine Resources. Progress in Oceanography, 2011, 88, 1-27.	1.5	272
59	The Dynamics of Herds: From Individuals to Aggregations. Journal of Theoretical Biology, 1996, 182, 85-98.	0.8	269
60	The dynamics of cocirculating influenza strains conferring partial cross-immunity. Journal of Mathematical Biology, 1997, 35, 825-842.	0.8	268
61	LEAKY PREZYGOTIC ISOLATION AND POROUS GENOMES: RAPID INTROGRESSION OF MATERNALLY INHERITED DNA. Evolution; International Journal of Organic Evolution, 2005, 59, 720-729.	1.1	265
62	Extinction Thresholds and Metapopulation Persistence in Dynamic Landscapes. American Naturalist, 2000, 156, 478-494.	1.0	264
63	Complex adaptive systems: Exploring the known, the unknown and the unknowable. Bulletin of the American Mathematical Society, 2002, 40, 3-20.	0.8	264
64	Phytoplankton growth and stoichiometry under multiple nutrient limitation. Limnology and Oceanography, 2004, 49, 1463-1470.	1.6	263
65	Generalized Models Reveal Stabilizing Factors in Food Webs. Science, 2009, 325, 747-750.	6.0	249
66	Mechanistic Analytical Models for Longâ€Distance Seed Dispersal by Wind. American Naturalist, 2005, 166, 368-381.	1.0	245
67	Coevolutionary arms races between bacteria and bacteriophage. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 9535-9540.	3.3	245
68	Epidemiological models with age structure, proportionate mixing, and cross-immunity. Journal of Mathematical Biology, 1989, 27, 233-258.	0.8	244
69	Limitations of Laboratory Bioassays: The Need for Ecosystem-Level Testing. BioScience, 1985, 35, 165-171.	2.2	233
70	Ecology and evolution of the flu. Trends in Ecology and Evolution, 2002, 17, 334-340.	4.2	233
71	Spatial Aspects of Interspecific Competition. Theoretical Population Biology, 1998, 53, 30-43.	0.5	230
72	Aggregation in model ecosystems. I. Perfect aggregation. Ecological Modelling, 1987, 37, 287-302.	1.2	221

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73	Cascading regime shifts within and across scales. Science, 2018, 362, 1379-1383.	6.0	220
74	The Effects of Disturbance Architecture on Landscape-Level Population Dynamics. Ecology, 1996, 77, 375-394.	1.5	215
75	Spatial attributes and reserve design models: A review. Environmental Modeling and Assessment, 2005, 10, 163-181.	1.2	215
76	Immune life history, vaccination, and the dynamics of SARS-CoV-2 over the next 5 years. Science, 2020, 370, 811-818.	6.0	210
77	Sex-Ratio Selection in Species with Helpers-At-The-Nest. American Naturalist, 1986, 127, 1-8.	1.0	207
78	Hemagglutinin sequence clusters and the antigenic evolution of influenza A virus. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6263-6268.	3.3	205
79	Quantifying resilience of humans and other animals. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11883-11890.	3.3	204
80	Social Norms and Global Environmental Challenges: The Complex Interaction of Behaviors, Values, and Policy. BioScience, 2013, 63, 164-175.	2.2	202
81	Termite mounds can increase the robustness of dryland ecosystems to climatic change. Science, 2015, 347, 651-655.	6.0	202
82	A Simulation Model of the Population Dynamics and Evolution of Myxomatosis. Ecological Monographs, 1990, 60, 423-447.	2.4	200
83	Transnational corporations and the challenge of biosphere stewardship. Nature Ecology and Evolution, 2019, 3, 1396-1403.	3.4	194
84	A Spatial Patch Dynamic Modeling Approach to Pattern and Process in an Annual Grassland. Ecological Monographs, 1994, 64, 447-464.	2.4	191
85	Multiple Scales and the Maintenance of Biodiversity. Ecosystems, 2000, 3, 498-506.	1.6	190
86	Epidemiological and evolutionary considerations of SARS-CoV-2 vaccine dosing regimes. Science, 2021, 372, 363-370.	6.0	185
87	From Management to Stewardship: Viewing Forests As Complex Adaptive Systems in an Uncertain World. Conservation Letters, 2015, 8, 368-377.	2.8	183
88	Pattern Generation in Space and Aspect. SIAM Review, 1985, 27, 45-67.	4.2	181
89	The Spread of a Reinvading Species: Range Expansion in the California Sea Otter. American Naturalist, 1988, 131, 526-543.	1.0	178
90	Self-organization and the Emergence of Complexity in Ecological Systems. BioScience, 2005, 55, 1075.	2.2	171

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91	Dispersal in patchy environments: The effects of temporal and spatial structure. Theoretical Population Biology, 1991, 39, 63-99.	0.5	170
92	Fractal reorientation clocks: Linking animal behavior to statistical patterns of search. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19072-19077.	3.3	170
93	Persistent colonization and the spread of antibiotic resistance in nosocomial pathogens: Resistance is a regional problem. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 3709-3714.	3.3	169
94	Regime shifts in a social-ecological system. Theoretical Ecology, 2013, 6, 359-372.	0.4	169
95	Spatial Models for Species-Area Curves. Journal of Theoretical Biology, 1996, 179, 119-127.	0.8	161
96	Analysis of an age-structured fishery model. Journal of Mathematical Biology, 1980, 9, 245-274.	0.8	157
97	Terrestrial models and global change: challenges for the future. Global Change Biology, 1998, 4, 581-590.	4.2	151
98	River networks as ecological corridors: A complex systems perspective for integrating hydrologic, geomorphologic, and ecologic dynamics. Water Resources Research, 2009, 45, .	1.7	148
99	Fishery Discards Impact on Seabird Movement Patterns at Regional Scales. Current Biology, 2010, 20, 215-222.	1.8	147
100	What is blue growth? The semantics of â€œSustainable Developmentâ€•of marine environments. Marine Policy, 2018, 87, 177-179.	1.5	147
101	Phytoplankton stoichiometry. Ecological Research, 2008, 23, 479-485.	0.7	143
102	Climate Change and the Integrity of Science. Science, 2010, 328, 689-690.	6.0	143
103	The SIRC model and influenza A. Mathematical Biosciences, 2006, 200, 152-169.	0.9	141
104	A note on difference-delay equations. Theoretical Population Biology, 1976, 9, 178-187.	0.5	136
105	Aggregation in Model Ecosystems II. Approximate Aggregation. Mathematical Medicine and Biology, 1989, 6, 1-23.	0.8	135
106	GLOBAL FOOD SUPPLY:Food Production, Population Growth, and the Environment. , 1998, 281, 1291-1292.		135
107	PathogenâĐriven Outbreaks in Forest Defoliators Revisited: Building Models from Experimental Data. American Naturalist, 2000, 156, 105-120.	1.0	135
108	Economic Pathways to Ecological Sustainability. BioScience, 2000, 50, 339.	2.2	134

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109	Limiting Similarity, Species Packing, and System Stability for Hierarchical Competitionâ€Colonization Models. American Naturalist, 1999, 153, 371-383.	1.0	130
110	The Multifaceted Aspects of Ecosystem Integrity. Ecology and Society, 1997, 1, .	0.9	130
111	From individuals to epidemics. Philosophical Transactions of the Royal Society B: Biological Sciences, 1996, 351, 1615-1621.	1.8	129
112	The Evolution of Norms. PLoS Biology, 2005, 3, e194.	2.6	128
113	Role of economics in analyzing the environment and sustainable development. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5233-5238.	3.3	128
114	The dynamics of group formation. Mathematical Biosciences, 1995, 128, 243-264.	0.9	127
115	Integrating Theoretical Climate and Fire Effects on Savanna and Forest Systems. American Naturalist, 2012, 180, 211-224.	1.0	126
116	Allelopathy of bacteria in a lattice population: Competition between colicin-sensitive and colicin-producing strains. Evolutionary Ecology, 1998, 12, 785-802.	0.5	125
117	The right incentives enable ocean sustainability successes and provide hope for the future. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14507-14514.	3.3	123
118	Periodicity in Epidemiological Models. Biomathematics, 1989, , 193-211.	0.7	122
119	On the role of long incubation periods in the dynamics of acquired immunodeficiency syndrome (AIDS). Journal of Mathematical Biology, 1989, 27, 373-398.	0.8	121
120	Using mathematical optimization models to design nature reserves. Frontiers in Ecology and the Environment, 2004, 2, 98-105.	1.9	121
121	From The Cover: Strategic interactions in multi-institutional epidemics of antibiotic resistance. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 3153-3158.	3.3	117
122	Facultative versus Obligate Nitrogen Fixation Strategies and Their Ecosystem Consequences. American Naturalist, 2009, 174, 465-477.	1.0	116
123	FROM INDIVIDUALS TO POPULATION DENSITIES: SEARCHING FOR THE INTERMEDIATE SCALE OF NONTRIVIAL DETERMINISM. Ecology, 1999, 80, 2225-2236.	1.5	115
124	MARINE RESERVE DESIGN AND THE EVOLUTION OF SIZE AT MATURATION IN HARVESTED FISH. , 2005, 15, 882-901.		112
125	Climate policies under wealth inequality. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2212-2216.	3.3	112
126	Species diversity and ecosystem response to carbon dioxide fertilization: conclusions from a temperate forest model. Global Change Biology, 1995, 1, 373-381.	4.2	111

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127	Cutting through the complexity of cell collectives. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20122770.	1.2	111
128	Perspectives in Ecological Theory. , 1989, , .		111
129	The survival of the conformist: Social pressure and renewable resource management. Journal of Theoretical Biology, 2012, 299, 152-161.	0.8	108
130	Dynamic model of flexible phytoplankton nutrient uptake. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20633-20638.	3.3	107
131	New perspectives in ecotoxicology. Environmental Management, 1984, 8, 375-442.	1.2	104
132	Coping With Uncertainty: A Call for a New Science-Policy Forum. Ambio, 2003, 32, 330-335.	2.8	103
133	Dynamic response of grass cover to rainfall variability: implications for the function and persistence of savanna ecosystems. Advances in Water Resources, 2005, 28, 291-302.	1.7	101
134	Differential neutralization efficiency of hemagglutinin epitopes, antibody interference, and the design of influenza vaccines. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8701-8706.	3.3	100
135	The effect of global travel on the spread of SARS. Mathematical Biosciences and Engineering, 2006, 3, 205-218.	1.0	100
136	Long-distance biological transport processes through the air: can nature's complexity be unfolded in silico?. Diversity and Distributions, 2005, 11, 131-137.	1.9	98
137	A Mathematical Model of Coevolving Populations. American Naturalist, 1977, 111, 657-675.	1.0	97
138	Eluding catastrophic shifts. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1828-36.	3.3	97
139	The Dependence of Plant Root: Shoot Ratios on Internal Nitrogen Concentration. Annals of Botany, 1989, 64, 71-75.	1.4	96
140	Designing marine reserves for interacting species: Insights from theory. Biological Conservation, 2007, 137, 163-179.	1.9	96
141	HIDDEN EFFECTS OF CHRONIC TUBERCULOSIS IN AFRICAN BUFFALO. Ecology, 2005, 86, 2358-2364.	1.5	95
142	A neutral metapopulation model of biodiversity in river networks. Journal of Theoretical Biology, 2007, 245, 351-363.	0.8	94
143	Evolutionary tradeoffs can select against nitrogen fixation and thereby maintain nitrogen limitation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1573-1578.	3.3	94
144	Impact of ocean phytoplankton diversity on phosphate uptake. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17540-17545.	3.3	93

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145	Resource limitation in a competitive context determines complex plant responses to experimental resource additions. Ecology, 2013, 94, 2505-2517.	1.5	92
146	Size and scaling of predator-prey dynamics. Ecology Letters, 2006, 9, 548-557.	3.0	90
147	Learning to live in a global commons: socioeconomic challenges for a sustainable environment. Ecological Research, 2006, 21, 328-333.	0.7	89
148	Increased plant growth from nitrogen addition should conserve phosphorus in terrestrial ecosystems. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1971-1976.	3.3	89
149	Competition for Water and Light in Closed-Canopy Forests: A Tractable Model of Carbon Allocation with Implications for Carbon Sinks. American Naturalist, 2013, 181, 314-330.	1.0	87
150	Public goods in relation to competition, cooperation, and spite. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10838-10845.	3.3	87
151	Merging Economics and Epidemiology to Improve the Prediction and Management of Infectious Disease. EcoHealth, 2014, 11, 464-475.	0.9	87
152	Dynamics of influenza A drift: the linear three-strain model. Mathematical Biosciences, 1999, 162, 33-51.	0.9	86
153	The Evolution of Dispersal in Reserve Networks. American Naturalist, 2007, 170, 59-78.	1.0	86
154	The timing of life history events. Journal of Theoretical Biology, 1995, 172, 33-42.	0.8	85
155	Humanâ€“environment interactions in population and ecosystem health. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14502-14506.	3.3	83
156	Intraspecific Variation and Species Coexistence. American Naturalist, 2007, 170, 807-818.	1.0	82
157	Decision versus compromise for animal groups in motion. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 227-232.	3.3	82
158	A model of flexible uptake of two essential resources. Journal of Theoretical Biology, 2007, 246, 278-289.	0.8	81
159	Characterizing fisheries connectivity in marine socialâ€“ecological systems. ICES Journal of Marine Science, 2017, 74, 2087-2096.	1.2	81
160	Vaccine nationalism and the dynamics and control of SARS-CoV-2. Science, 2021, 373, eabj7364.	6.0	80
161	Evolution of cooperation on temporal networks. Nature Communications, 2020, 11, 2259.	5.8	78
162	Toward a Dynamic Metacommunity Approach to Marine Reserve Theory. BioScience, 2004, 54, 1003.	2.2	77

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163	A global movement toward an ecosystem approach to management of marine resources. Marine Ecology - Progress Series, 2005, 300, 275-279.	0.9	76
164	Cooperation among Microorganisms. PLoS Biology, 2006, 4, e299.	2.6	75
165	Economic growth, carrying capacity, and the environment. Environment and Development Economics, 1996, 1, 104-110.	1.3	74
166	Local Frequency Dependence and Global Coexistence. Theoretical Population Biology, 1999, 55, 270-282.	0.5	74
167	Traveling waves in a model of influenza A drift. Journal of Theoretical Biology, 2003, 222, 437-445.	0.8	74
168	Evolutionary escape from the prisoner's dilemma. Journal of Theoretical Biology, 2007, 245, 411-422.	0.8	74
169	Diversity in Current Ecological Thinking: Implications for Environmental Management. Environmental Management, 2009, 43, 17-27.	1.2	74
170	Self-organization of Front Patterns in Large Wildebeest Herds. Journal of Theoretical Biology, 1993, 165, 541-552.	0.8	73
171	The effects of population heterogeneity on disease invasion. Mathematical Biosciences, 1995, 128, 25-40.	0.9	73
172	Biome-scale nitrogen fixation strategies selected by climatic constraints on nitrogen cycle. Nature Plants, 2015, 1, 15182.	4.7	73
173	A collective navigation hypothesis for homeward migration in anadromous salmonids. Fish and Fisheries, 2016, 17, 525-542.	2.7	73
174	Slowing Down of Recovery as Generic Risk Marker for Acute Severity Transitions in Chronic Diseases. Critical Care Medicine, 2016, 44, 601-606.	0.4	73
175	Building Resilience and Adaptation to Manage Arctic Change. Ambio, 2006, 35, 198-202.	2.8	70
176	To breed or not to breed: a model of partial migration. Oikos, 2011, 120, 1871-1879.	1.2	70
177	Results on the dynamics for models for the sexual transmission of the human immunodeficiency virus. Applied Mathematics Letters, 1989, 2, 327-331.	1.5	69
178	Managing Ecosystem Resourcesâ€. Environmental Science & Technology, 2000, 34, 1401-1406.	4.6	69
179	The growth of finfish in global open-ocean aquaculture under climate change. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20170834.	1.2	69
180	Link recommendation algorithms and dynamics of polarization in online social networks. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	69

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181	ECOLOGY: Hatcheries and Endangered Salmon. Science, 2004, 303, 1980-1980.	6.0	67
182	Can stable social groups be maintained by homophilous imitation alone?. Journal of Economic Behavior and Organization, 2005, 57, 267-286.	1.0	65
183	THEORETICAL PERSPECTIVES ON EVOLUTION OF LONG-DISTANCE DISPERSAL AND THE EXAMPLE OF SPECIALIZED PESTS. Ecology, 2003, 84, 1957-1967.	1.5	64
184	Fitness tradeoffs between spores and nonaggregating cells can explain the coexistence of diverse genotypes in cellular slime molds. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2776-2781.	3.3	63
185	Optimal, near-optimal, and robust epidemic control. Communications Physics, 2021, 4, .	2.0	61
186	The Role of Theoretical Ecology in the Description and Understanding of Populations in Heterogeneous Environments. American Zoologist, 1981, 21, 865-875.	0.7	60
187	A patch-based spatial modeling approach: conceptual framework and simulation scheme. Ecological Modelling, 1997, 101, 325-346.	1.2	60
188	Functional Biogeography of Ocean Microbes Revealed through Non-Negative Matrix Factorization. PLoS ONE, 2012, 7, e43866.	1.1	60
189	Urban ecology: advancing science and society. Frontiers in Ecology and the Environment, 2014, 12, 574-581.	1.9	60
190	Tree cover in sub-Saharan Africa: Rainfall and fire constrain forest and savanna as alternative stable states. Ecology, 2011, 92, 1063-1072.	1.5	60
191	Scale and Scaling in Ecological and Economic Systems. Environmental and Resource Economics, 2003, 26, 527-557.	1.5	58
192	Universality in Bacterial Colonies. Journal of Statistical Physics, 2011, 144, 303-315.	0.5	58
193	The Interaction between Dispersal and Dormancy Strategies in Varying and Heterogeneous Environments. Lecture Notes in Biomathematics, 1987, , 110-122.	0.3	58
194	Economic Growth, Carrying Capacity, and the Environment. , 1996, 6, 13-15.		56
195	Modeling tiger population and territory dynamics using an agent-based approach. Ecological Modelling, 2015, 312, 347-362.	1.2	56
196	OSCILLATORY DYNAMICS AND SPATIAL SCALE: THE ROLE OF NOISE AND UNRESOLVED PATTERN. Ecology, 2001, 82, 2357-2369.	1.5	55
197	Mathematical model of adult stem cell regeneration with cross-talk between genetic and epigenetic regulation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E880-7.	3.3	55
198	Cooperation in the Climate Commons. Review of Environmental Economics and Policy, 2019, 13, 227-247.	3.1	55

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199	Pattern and scale in a serpentine grassland. Theoretical Population Biology, 1992, 41, 257-276.	0.5	54
200	â€œCritical Slowing Downâ€•in Time-to-extinction: an Example of Critical Phenomena in Ecology. Journal of Theoretical Biology, 1998, 192, 363-376.	0.8	54
201	On the complex dynamics of savanna landscapes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E1336-E1345.	3.3	54
202	Application of nonlinear stability theory to the study of the effects of diffusion on predator-prey interactions. AIP Conference Proceedings, 1976, , .	0.3	53
203	Dynamics of Decision Making in Animal Group Motion. Journal of Nonlinear Science, 2009, 19, 399-435.	1.0	53
204	Decreased water limitation under elevated CO ₂ amplifies potential for forest carbon sinks. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7213-7218.	3.3	53
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