Roger M Nisbet

List of Publications by Year
in descending order

70	3,587	126708 33	138251 58
papers	citations	h-index	g-index

72	72	72	4538
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Soybean susceptibility to manufactured nanomaterials with evidence for food quality and soil fertility interruption. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2451-6.	3.3	436
2	WHY DO POPULATIONS CYCLE? A SYNTHESIS OF STATISTICAL AND MECHANISTIC MODELING APPROACHES. Ecology, 1999, 80, 1789-1805.	1.5	300
3	Large-amplitude cycles of Daphnia and its algal prey in enriched environments. Nature, 1999, 402, 653-656.	13.7	211
4	Habitat structure and population persistence in an experimental community. Nature, 2001, 412, 538-543.	13.7	187
5	Instream flow needs in streams and rivers: the importance of understanding ecological dynamics. Frontiers in Ecology and the Environment, 2006, 4, 309-318.	1.9	152
6	Integrating dynamic energy budget (DEB) theory with traditional bioenergetic models. Journal of Experimental Biology, 2012, 215, 892-902.	0.8	117
7	Damage assessment for soybean cultivated in soil with either CeO2 or ZnO manufactured nanomaterials. Science of the Total Environment, 2017, 579, 1756-1768.	3.9	100
8	Predicting Population Dynamics from the Properties of Individuals: A Cross-Level Test of Dynamic Energy Budget Theory. American Naturalist, 2013, 181, 506-519.	1.0	95
9	Stoichiometric food quality and herbivore dynamics. Ecology Letters, 2001, 4, 519-529.	3.0	93
10	Trends and cohort resonant effects in ageâ€structured populations. Journal of Animal Ecology, 2004, 73, 1157-1167.	1.3	92
11	The pros and cons of ecological risk assessment based on data from different levels of biological organization. Critical Reviews in Toxicology, 2016, 46, 756-784.	1.9	83
12	Extrapolating ecotoxicological effects from individuals to populations: a generic approach based on Dynamic Energy Budget theory and individual-based modeling. Ecotoxicology, 2013, 22, 574-583.	1.1	80
13	Eggload dynamics and oviposition rate in a wild population of a parasitic wasp. Journal of Animal Ecology, 2000, 69, 185-193.	1.3	75
14	Population persistence in the face of advection. Theoretical Ecology, 2010, 3, 271-284.	0.4	74
15	A dynamic bioenergetic model for coral- Symbiodinium symbioses and coral bleaching as an alternate stable state. Journal of Theoretical Biology, 2017, 431, 49-62.	0.8	63
16	COOPERATION AND COMPETITION ALONG SMOOTH ENVIRONMENTAL GRADIENTS. Ecology, 1997, 78, 2004-2017.	1.5	61
17	Dynamic energy budget theory and population ecology: lessons from Daphnia. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 3541-3552.	1.8	61
18	Conservation management approaches to protecting the capacity for corals to respond to climate change: a theoretical comparison. Global Change Biology, 2010, 16, 1229-1246.	4.2	58

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19	POPULATION DYNAMICS AND SPATIAL SCALE: EFFECTS OF SYSTEM SIZE ON POPULATION PERSISTENCE. Ecology, 1999, 80, 2492-2507.	1.5	57
20	Dynamic energy budgets in syntrophic symbiotic relationships between heterotrophic hosts and photoautotrophic symbionts. Journal of Theoretical Biology, 2009, 259, 44-57.	0.8	57
21	Environmental Feedbacks and Engineered Nanoparticles: Mitigation of Silver Nanoparticle Toxicity to Chlamydomonas reinhardtii by Algal-Produced Organic Compounds. PLoS ONE, 2013, 8, e74456.	1.1	56
22	Quantitative Adverse Outcome Pathway Analysis of Hatching in Zebrafish with CuO Nanoparticles. Environmental Science & Technology, 2015, 49, 11817-11824.	4.6	54
23	A Dynamic Energy Budget model based on partitioning of net production. Journal of Mathematical Biology, 2000, 41, 361-386.	0.8	51
24	Survival and Production in Variable Resource Environments. Bulletin of Mathematical Biology, 2000, 62, 1163-1189.	0.9	50
25	Influence of Phytoplankton on Fate and Effects of Modified Zerovalent Iron Nanoparticles. Environmental Science & Technology, 2016, 50, 5597-5605.	4.6	49
26	FORMULATING AND TESTING A PARTIALLY SPECIFIED DYNAMIC ENERGY BUDGET MODEL. Ecology, 2004, 85, 3132-3139.	1.5	48
27	Sublethal toxicant effects with dynamic energy budget theory: model formulation. Ecotoxicology, 2010, 19, 48-60.	1.1	47
28	Incorporating Suborganismal Processes into Dynamic Energy Budget Models for Ecological Risk Assessment. Integrated Environmental Assessment and Management, 2018, 14, 615-624.	1.6	42
29	Bioenergetic theory predicts infection dynamics of human schistosomes in intermediate host snails across ecological gradients. Ecology Letters, 2018, 21, 692-701.	3.0	41
30	Growth autocorrelation and animal size variation. Ecology Letters, 2003, 7, 106-113.	3.0	39
31	Integrating lipid storage into general representations of fish energetics. Journal of Animal Ecology, 2017, 86, 812-825.	1.3	39
32	Scaling population responses to spatial environmental variability in advection-dominated systems. Ecology Letters, 2005, 8, 933-943.	3.0	38
33	Limitations of extrapolating toxic effects on reproduction to the population level. Ecological Applications, 2014, 24, 1972-1983.	1.8	36
34	Response of equilibrium states to spatial environmental heterogeneity in advective systems. Mathematical Biosciences and Engineering, 2007, 4, 1-13.	1.0	36
35	Photosynthetic efficiency predicts toxic effects of metal nanomaterials in phytoplankton. Aquatic Toxicology, 2017, 183, 85-93.	1.9	33
36	Niche and fitness differences relate the maintenance of diversity to ecosystem function. Ecology, 2011, 92, 1157-1165.	1.5	33

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37	Spillover from marine reserves related to mechanisms of population regulation. Theoretical Ecology, 2008, 1, 117-127.	0.4	31
38	Modeling Physiological Processes That Relate Toxicant Exposure and Bacterial Population Dynamics. PLoS ONE, 2012, 7, e26955.	1.1	28
39	Dynamic energy budget modeling reveals the potential of future growth and calcification for the coccolithophoreEmiliania huxleyiin an acidified ocean. Global Change Biology, 2014, 20, 2031-2038.	4.2	28
40	Abrupt population changes along smooth environmental gradients. Bulletin of Mathematical Biology, 1996, 58, 907-922.	0.9	25
41	ANALYSIS OF SIZE TRAJECTORY DATA USING AN ENERGETIC-BASED GROWTH MODEL. Ecology, 2005, 86, 1441-1451.	1.5	22
42	Standardized toxicity testing may underestimate ecotoxicity: Environmentally relevant food rations increase the toxicity of silver nanoparticles to Daphnia. Environmental Toxicology and Chemistry, 2017, 36, 3008-3018.	2.2	22
43	Discrete consumers, small scale resource heterogeneity, and population stability. Ecology Letters, 1998, 1, 34-37.	3.0	21
44	Bayesian inference for bioenergetic models. Ecology, 2013, 94, 882-894.	1.5	21
45	Spatial Structure and Fluctuations in the Contact Process and Related Models. Bulletin of Mathematical Biology, 2000, 62, 959-975.	0.9	20
46	Sublethal toxicant effects with dynamic energy budget theory: application to mussel outplants. Ecotoxicology, 2010, 19, 38-47.	1.1	20
47	Dynamic Energy Budget Theory: An Efficient and General Theory for Ecology. BioScience, 2015, 65, 341-341.	2.2	18
48	Transmission potential of human schistosomes can be driven by resource competition among snail intermediate hosts. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	17
49	Delayed feedback and multiple attractors in a host-parasitoid system. Journal of Mathematical Biology, 1999, 38, 317-345.	0.8	15
50	Stage-structured cycles generate strong fitness-equalizing mechanisms. Evolutionary Ecology, 2007, 21, 499-515.	0.5	13
51	Departures from neutrality induced by niche and relative fitness differences. Theoretical Ecology, 2015, 8, 449-465.	0.4	12
52	Feedbacks and tipping points in organismal response to oxidative stress. Journal of Theoretical Biology, 2016, 404, 361-374.	0.8	12
53	Regulation of reproductive processes with dynamic energy budgets. Functional Ecology, 2019, 33, 819-832.	1.7	12
54	Stoichiometric Ecotoxicology for a Multisubstance World. BioScience, 2021, 71, 132-147.	2.2	12

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55	Daphnia magnaâ€™s sense of competition: intra-specific interactions (ISI) alter life history strategies and increase metals toxicity. Ecotoxicology, 2016, 25, 1126-1135.	1.1	10
56	Chemical safety must extend to ecosystems. Science, 2017, 356, 917-917.	6.0	9
57	Hostâ€“Symbiont Interaction Model Explains Non-monotonic Response of Soybean Growth and Seed Production to Nano-CeO₂ Exposure. Environmental Science & Technology, 2017, 51, 4944-4950.	4.6	9
58	Local interactions drive size dependent space competition between coral and crustose coralline algae. Oikos, 2011, 120, 941-949.	1.2	8
59	Integrate-and-fire models of insolation-driven entrainment of broadcast spawning in corals. Theoretical Ecology, 2011, 4, 69-85.	0.4	8
60	The implications of reduced metabolic rate in a resource-limited coral. Journal of Experimental Biology, 2016, 219, 870-7.	0.8	8
61	INFERRING COLONIZATION PROCESSES FROM POPULATION DYNAMICS IN SPATIALLY STRUCTURED PREDATORâ€“PREY SYSTEMS. Ecology, 2000, 81, 3350-3361.	1.5	7
62	Linking Adverse Outcome Pathways to Dynamic Energy Budgets: A Conceptual Model. , 2018, , 281-302.		7
63	Local control of resource allocation is sufficient to model optimal dynamics in syntrophic systems. Theoretical Ecology, 2020, 13, 481-501.	0.4	6
64	Challenges for dynamic energy budget theory. Physics of Life Reviews, 2017, 20, 72-74.	1.5	4
65	The Effect of Dietary Exposure to Coal Ash Contaminants within Food Ration on Growth and Reproduction in Daphnia magna. Environmental Toxicology and Chemistry, 2020, 39, 1998-2007.	2.2	4
66	Fertilization by coral-dwelling fish promotes coral growth but can exacerbate bleaching response. Journal of Theoretical Biology, 2022, 541, 111087.	0.8	4
67	Abrupt population changes along smooth environmental gradients. Bulletin of Mathematical Biology, 1996, 58, 907-922.	0.9	3
68	A time-since-infection model for populations with two pathogens. Theoretical Population Biology, 2022, 144, 1-12.	0.5	3
69	Models of alternative lifeâ€history strategies, population structure and potential speciation in salmonid fish stocks. Journal of Animal Ecology, 2001, 70, 260-272.	1.3	2
70	OUP accepted manuscript. , 2022, 10, coac026.		2