

# Michael C Runge

## List of Publications by Year in descending order

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Version: 2024-02-01

105  
papers

6,681  
citations

76326

40  
h-index

71685

76  
g-index

128  
all docs

128  
docs citations

128  
times ranked

7928  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ecological and evolutionary traps. <i>Trends in Ecology and Evolution</i> , 2002, 17, 474-480.	8.7	1,113
2	Which uncertainty? Using expert elicitation and expected value of information to design an adaptive program. <i>Biological Conservation</i> , 2011, 144, 1214-1223.	4.1	331
3	Introduced species as evolutionary traps. <i>Ecology Letters</i> , 2005, 8, 241-246.	6.4	270
4	Monitoring in the Context of Structured Decision-Making and Adaptive Management. <i>Journal of Wildlife Management</i> , 2008, 72, 1683-1692.	1.8	228
5	Structured decision making as a conceptual framework to identify thresholds for conservation and management. <i>Ecological Applications</i> , 2009, 19, 1079-1090.	3.8	224
6	Adaptive harvest management of North American waterfowl populations: a brief history and future prospects. <i>Journal Fur Ornithologie</i> , 2007, 148, 343-349.	1.2	205
7	Climate change threatens polar bear populations: a stochastic demographic analysis. <i>Ecology</i> , 2010, 91, 2883-2897.	3.2	203
8	The Role of Local Populations within a Landscape Context: Defining and Classifying Sources and Sinks. <i>American Naturalist</i> , 2006, 167, 925-938.	2.1	201
9	New interventions are needed to save coral reefs. <i>Nature Ecology and Evolution</i> , 2017, 1, 1420-1422.	7.8	182
10	An Introduction to Adaptive Management for Threatened and Endangered Species. <i>Journal of Fish and Wildlife Management</i> , 2011, 2, 220-233.	0.9	149
11	Decision Support Frameworks and Tools for Conservation. <i>Conservation Letters</i> , 2018, 11, e12385.	5.7	139
12	Allocating monitoring effort in the face of unknown unknowns. <i>Ecology Letters</i> , 2010, 13, 1325-1337.	6.4	136
13	Modeling of Future COVID-19 Cases, Hospitalizations, and Deaths, by Vaccination Rates and Nonpharmaceutical Intervention Scenarios – United States, April–September 2021. <i>Morbidity and Mortality Weekly Report</i> , 2021, 70, 719-724.	15.1	126
14	Optimal timing for managed relocation of species faced with climate change. <i>Nature Climate Change</i> , 2011, 1, 261-265.	18.8	125
15	The use of photographic rates to estimate densities of tigers and other cryptic mammals: a comment on misleading conclusions. <i>Animal Conservation</i> , 2002, 5, 119-120.	2.9	121
16	Conservation in the face of climate change: The roles of alternative models, monitoring, and adaptation in confronting and reducing uncertainty. <i>Biological Conservation</i> , 2011, 144, 1204-1213.	4.1	115
17	Adaptive Management and the Value of Information: Learning Via Intervention in Epidemiology. <i>PLoS Biology</i> , 2014, 12, e1001970.	5.6	98
18	Planning for robust reserve networks using uncertainty analysis. <i>Ecological Modelling</i> , 2006, 199, 115-124.	2.5	95

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19	Incorporating parametric uncertainty into population viability analysis models. <i>Biological Conservation</i> , 2011, 144, 1400-1408.	4.1	90
20	Active adaptive conservation of threatened species in the face of uncertainty. <i>Ecological Applications</i> , 2010, 20, 1476-1489.	3.8	85
21	Endangered species recovery: A resource allocation problem. <i>Science</i> , 2018, 362, 284-286.	12.6	78
22	White-nose syndrome is likely to extirpate the endangered Indiana bat over large parts of its range. <i>Biological Conservation</i> , 2013, 160, 162-172.	4.1	76
23	How much is new information worth? Evaluating the financial benefit of resolving management uncertainty. <i>Journal of Applied Ecology</i> , 2015, 52, 12-20.	4.0	73
24	Decision-making for foot-and-mouth disease control: Objectives matter. <i>Epidemics</i> , 2016, 15, 10-19.	3.0	71
25	Harvesting wildlife affected by climate change: a modelling and management approach for polar bears. <i>Journal of Applied Ecology</i> , 2017, 54, 1534-1543.	4.0	69
26	Harnessing multiple models for outbreak management. <i>Science</i> , 2020, 368, 577-579.	12.6	64
27	Contain or eradicate? Optimizing the management goal for Australian acacia invasions in the face of uncertainty. <i>Diversity and Distributions</i> , 2011, 17, 1047-1059.	4.1	63
28	DEMOGRAPHY OF A POPULATION COLLAPSE: THE NORTHERN IDAHO GROUND SQUIRREL ( <i>SPERMOPHILLUS</i> ) Tj ETQ q 0 0 rgBT /Overlo	3.2	61
29	Recent advances in applying decision science to managing national forests. <i>Forest Ecology and Management</i> , 2012, 285, 123-132.	3.2	61
30	Assessing Allowable Take of Migratory Birds. <i>Journal of Wildlife Management</i> , 2009, 73, 556-565.	1.8	60
31	A matter of tradeoffs: Reintroduction as a multiple objective decision. <i>Journal of Wildlife Management</i> , 2013, 77, 1145-1156.	1.8	58
32	THE IMPORTANCE OF FUNCTIONAL FORM IN OPTIMAL CONTROL SOLUTIONS OF PROBLEMS IN POPULATION DYNAMICS. <i>Ecology</i> , 2002, 83, 1357-1371.	3.2	56
33	Combining Structured Decision Making and Value of Information Analyses to Identify Robust Management Strategies. <i>Conservation Biology</i> , 2012, 26, 810-820.	4.7	56
34	Ask not what nature can do for you: A critique of ecosystem services as a communication strategy. <i>Biological Conservation</i> , 2018, 224, 71-74.	4.1	52
35	Structured decision making as a proactive approach to dealing with sea level rise in Florida. <i>Climatic Change</i> , 2011, 107, 185-202.	3.6	50
36	Using the Value of Information to improve conservation decision making. <i>Biological Reviews</i> , 2019, 94, 629-647.	10.4	50

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37	CAPTURE-RECAPTURE ANALYSIS FOR ESTIMATING MANATEE REPRODUCTIVE RATES. <i>Marine Mammal Science</i> , 2004, 20, 424-437.	1.8	48
38	An Adaptive-Management Framework for Optimal Control of Hiking Near Golden Eagle Nests in Denali National Park. <i>Conservation Biology</i> , 2011, 25, no-no.	4.7	48
39	A Markov Decision Process for Managing Habitat for Florida Scrub-Jays. <i>Journal of Fish and Wildlife Management</i> , 2011, 2, 234-246.	0.9	47
40	Real-time decision-making during emergency disease outbreaks. <i>PLoS Computational Biology</i> , 2018, 14, e1006202.	3.2	46
41	An introduction to decision science for conservation. <i>Conservation Biology</i> , 2022, 36, .	4.7	45
42	Essential information: Uncertainty and optimal control of Ebola outbreaks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 5659-5664.	7.1	43
43	A modeling framework for integrated harvest and habitat management of North American waterfowl: Case-study of northern pintail metapopulation dynamics. <i>Ecological Modelling</i> , 2012, 225, 146-158.	2.5	42
44	A STAGE-BASED MODEL OF MANATEE POPULATION DYNAMICS. <i>Marine Mammal Science</i> , 2004, 20, 361-385.	1.8	35
45	Evaluating release alternatives for a long-lived bird species under uncertainty about long-term demographic rates. <i>Journal of Ornithology</i> , 2012, 152, 339-353.	1.1	34
46	Managing and learning with multiple models: Objectives and optimization algorithms. <i>Biological Conservation</i> , 2011, 144, 1237-1245.	4.1	33
47	A Collision Risk Model to Predict Avian Fatalities at Wind Facilities: An Example Using Golden Eagles, <i>Aquila chrysaetos</i> . <i>PLoS ONE</i> , 2015, 10, e0130978.	2.5	33
48	The Need for Coherence Between Waterfowl Harvest and Habitat Management. <i>Wildlife Society Bulletin</i> , 2006, 34, 1231-1237.	1.6	32
49	A typology of time-scale mismatches and behavioral interventions to diagnose and solve conservation problems. <i>Conservation Biology</i> , 2016, 30, 42-49.	4.7	31
50	Testing Decision Rules for Categorizing Species's™ Extinction Risk to Help Develop Quantitative Listing Criteria for the U.S. Endangered Species Act. <i>Conservation Biology</i> , 2013, 27, 821-831.	4.7	29
51	Optimal control of Atlantic population Canada geese. <i>Ecological Modelling</i> , 2007, 201, 27-36.	2.5	28
52	Optimal control of native predators. <i>Biological Conservation</i> , 2010, 143, 1751-1758.	4.1	28
53	Reconciling Uncertain Costs and Benefits in Bayes Nets for Invasive Species Management. <i>Risk Analysis</i> , 2010, 30, 277-284.	2.7	26
54	Are conservation organizations configured for effective adaptation to global change?. <i>Frontiers in Ecology and the Environment</i> , 2015, 13, 163-169.	4.0	24

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55	Rapid Prototyping for Decision Structuring: An Efficient Approach to Conservation Decision Analysis. , 2017, , 46-64.		23
56	Active adaptive management for reintroduction of an animal population. <i>Journal of Wildlife Management</i> , 2013, 77, 1135-1144.	1.8	22
57	Cross-seasonal effects on waterfowl productivity: Implications under climate change. <i>Journal of Wildlife Management</i> , 2016, 80, 1227-1241.	1.8	22
58	Projected resurgence of COVID-19 in the United States in July–December 2021 resulting from the increased transmissibility of the Delta variant and faltering vaccination. <i>ELife</i> , 0, 11, .	6.0	22
59	Hierarchical Bayesian analysis to incorporate age uncertainty in growth curve analysis and estimates of age from length: Florida manatee ( <i>Trichechus manatus</i> ) carcasses. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2009, 66, 1775-1789.	1.4	21
60	Detecting failure of climate predictions. <i>Nature Climate Change</i> , 2016, 6, 861-864.	18.8	21
61	Implementing the 2012 North American Waterfowl Management Plan revision: Populations, habitat, and people. <i>Journal of Wildlife Management</i> , 2018, 82, 275-286.	1.8	20
62	Adaptive Management of Bull Trout Populations in the Lemhi Basin. <i>Journal of Fish and Wildlife Management</i> , 2011, 2, 262-281.	0.9	20
63	Continental Survival and Recovery Rates of Northern Pintails Using Band-Recovery Data. <i>Journal of Wildlife Management</i> , 2010, 74, 778-787.	1.8	19
64	A vision for documenting and sharing knowledge in conservation. <i>Conservation Science and Practice</i> , 2019, 1, e1.	2.0	19
65	Evaluation of harvest and information needs for North American sea ducks. <i>PLoS ONE</i> , 2017, 12, e0175411.	2.5	17
66	A decision-analytic approach to the optimal allocation of resources for endangered species consultation. <i>Biological Conservation</i> , 2011, 144, 319-329.	4.1	16
67	Minimizing the Cost of Keeping Options Open for Conservation in a Changing Climate. <i>Conservation Biology</i> , 2014, 28, 646-653.	4.7	16
68	Estimating the per-capita contribution of habitats and pathways in a migratory network: a modelling approach. <i>Ecography</i> , 2018, 41, 815-824.	4.5	16
69	Allowable take of black vultures in the eastern United States. <i>Journal of Wildlife Management</i> , 2019, 83, 272-282.	1.8	16
70	Using value of information to prioritize research needs for migratory bird management under climate change: a case study using federal land acquisition in the United States. <i>Biological Reviews</i> , 2020, 95, 1109-1130.	10.4	16
71	Quantifying the Value of Perfect Information in Emergency Vaccination Campaigns. <i>PLoS Computational Biology</i> , 2017, 13, e1005318.	3.2	16
72	Concurrent assessment of epidemiological and operational uncertainties for optimal outbreak control: Ebola as a case study. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20190774.	2.6	15

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73	An Adaptive Decision Framework for the Conservation of a Threatened Plant. <i>Journal of Fish and Wildlife Management</i> , 2011, 2, 247-261.	0.9	15
74	The role of demographic compensation theory in incidental take assessments for endangered species. <i>Biological Conservation</i> , 2011, 144, 730-737.	4.1	13
75	Strengthening links between waterfowl research and management. <i>Journal of Wildlife Management</i> , 2018, 82, 260-265.	1.8	12
76	Risks posed by SARS-CoV-2 to North American bats during winter fieldwork. <i>Conservation Science and Practice</i> , 2021, 3, e410.	2.0	12
77	Demographic risk assessment for a harvested species threatened by climate change: polar bears in the Chukchi Sea. <i>Ecological Applications</i> , 2021, 31, e02461.	3.8	12
78	THE IMPORTANCE OF ENVIRONMENTAL VARIABILITY AND MANAGEMENT CONTROL ERROR TO OPTIMAL HARVEST POLICIES. <i>Journal of Wildlife Management</i> , 2004, 68, 585-594.	1.8	10
79	Evaluation of a Reproductive Index for Estimating Productivity of Grassland Breeding Birds. <i>Auk</i> , 2010, 127, 86-93.	1.4	9
80	Implicit decision framing as an unrecognized source of confusion in endangered species classification. <i>Conservation Biology</i> , 2018, 32, 1246-1254.	4.7	9
81	Strategic testing approaches for targeted disease monitoring can be used to inform pandemic decision-making. <i>PLoS Biology</i> , 2021, 19, e3001307.	5.6	9
82	Identifying Objectives and Alternative Actions to Frame a Decision Problem. , 2014, , 29-43.		9
83	A modified model for projecting age-structured populations in random environments. <i>Mathematical Biosciences</i> , 1998, 150, 21-41.	1.9	8
84	Breeding Biology of Grassland Birds in Western New York: Conservation and Management Implications. <i>Avian Conservation and Ecology</i> , 2010, 5, .	0.8	8
85	Synergistic interventions to control COVID-19: Mass testing and isolation mitigates reliance on distancing. <i>PLoS Computational Biology</i> , 2021, 17, e1009518.	3.2	8
86	Reconstructing population dynamics of a threatened marine mammal using multiple data sets. <i>Scientific Reports</i> , 2021, 11, 2702.	3.3	7
87	A framework for allocating conservation resources among multiple threats and actions. <i>Conservation Biology</i> , 2021, 35, 1639-1649.	4.7	7
88	Anticipating future learning affects current control decisions: A comparison between passive and active adaptive management in an epidemiological setting. <i>Journal of Theoretical Biology</i> , 2020, 506, 110380.	1.7	6
89	Two-step adaptive management for choosing between two management actions. <i>Ecological Applications</i> , 2017, 27, 1210-1222.	3.8	5
90	Population Dynamics of Reintroduced Whooping Cranes. , 2019, , 139-160.		5

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91	Causes of delayed outbreak responses and their impacts on epidemic spread. <i>Journal of the Royal Society Interface</i> , 2021, 18, 20200933.	3.4	5
92	Optimizing management of invasions in an uncertain world using dynamic spatial models. <i>Ecological Applications</i> , 2022, 32, e2628.	3.8	5
93	Application of qualitative value of information to prioritize uncertainties about eastern black rail population recovery. <i>Conservation Science and Practice</i> , 2022, 4, .	2.0	5
94	An evaluation of rapid methods for monitoring vegetation characteristics of wetland bird habitat. <i>Wetlands Ecology and Management</i> , 2016, 24, 495-505.	1.5	4
95	Value of Information Analysis as a Decision Support Tool for Biosecurity. , 2017, , 308-333.		4
96	Multi-species duck harvesting using dynamic programming and multi-criteria decision analysis. <i>Journal of Applied Ecology</i> , 2019, 56, 1447-1459.	4.0	4
97	Incorporating climate change in a harvest risk assessment for polar bears <i>Ursus maritimus</i> in Southern Hudson Bay. <i>Biological Conservation</i> , 2021, 258, 109128.	4.1	4
98	Expert Elicitation of Population-Level Effects of Disturbance. <i>Advances in Experimental Medicine and Biology</i> , 2016, 875, 295-302.	1.6	3
99	Optimal Strategies for Managing Wildlife Harvest Under System Change. <i>Journal of Wildlife Management</i> , 2021, 85, 847-854.	1.8	3
100	A vision for documenting and sharing knowledge in conservation. <i>Conservation Science and Practice</i> , 2019, 1, e1.	2.0	2
101	Adaptive management to improve eagle conservation at terrestrial wind facilities. <i>Conservation Science and Practice</i> , 2021, 3, e449.	2.0	2
102	Weighing the unknowns: Value of Information for biological and operational uncertainty in invasion management. <i>Journal of Applied Ecology</i> , 2021, 58, 1621-1630.	4.0	2
103	Application of Threshold Concepts to Ecological Management Problems: Occupancy of Golden Eagles in Denali National Park, Alaska. , 2014, , 67-86.		1
104	Evaluating the risk of SARS-CoV-2 transmission to bats in the context of wildlife research, rehabilitation, and control. <i>Wildlife Society Bulletin</i> , 0, , .	0.8	1
105	The value of information for woodland management: updating a state-transition model. <i>Ecosphere</i> , 2017, 8, e01998.	2.2	0