

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	An introduction to decision science for conservation. <i>Conservation Biology</i> , 2022, 36, .	4.7	45
2	Optimizing management of invasions in an uncertain world using dynamic spatial models. <i>Ecological Applications</i> , 2022, 32, e2628.	3.8	5
3	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
4	Reconstructing population dynamics of a threatened marine mammal using multiple data sets. <i>Scientific Reports</i> , 2021, 11, 2702.	3.3	7
5	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
6	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
7	A framework for allocating conservation resources among multiple threats and actions. <i>Conservation Biology</i> , 2021, 35, 1639-1649.	4.7	7
8	Optimal Strategies for Managing Wildlife Harvest Under System Change. <i>Journal of Wildlife Management</i> , 2021, 85, 847-854.	1.8	3
9	Adaptive management to improve eagle conservation at terrestrial wind facilities. <i>Conservation Science and Practice</i> , 2021, 3, e449.	2.0	2
10	Modeling of Future COVID-19 Cases, Hospitalizations, and Deaths, by Vaccination Rates and Nonpharmaceutical Intervention Scenarios in the United States, April–September 2021. <i>Morbidity and Mortality Weekly Report</i> , 2021, 70, 719-724.	15.1	126
11	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
12	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
13	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
14	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
15	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
16	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
17	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
18	Harnessing multiple models for outbreak management. <i>Science</i> , 2020, 368, 577-579.	12.6	64

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19	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
20	Population Dynamics of Reintroduced Whooping Cranes. , 2019, , 139-160.		5
21	A vision for documenting and sharing knowledge in conservation. <i>Conservation Science and Practice</i> , 2019, 1, e1.	2.0	19
22	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
23	Allowable take of black vultures in the eastern United States. <i>Journal of Wildlife Management</i> , 2019, 83, 272-282.	1.8	16
24	A vision for documenting and sharing knowledge in conservation. <i>Conservation Science and Practice</i> , 2019, 1, e1.	2.0	2
25	Using the Value of Information to improve conservation decision making. <i>Biological Reviews</i> , 2019, 94, 629-647.	10.4	50
26	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
27	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
28	Strengthening links between waterfowl research and management. <i>Journal of Wildlife Management</i> , 2018, 82, 260-265.	1.8	12
29	Decision Support Frameworks and Tools for Conservation. <i>Conservation Letters</i> , 2018, 11, e12385.	5.7	139
30	Endangered species recovery: A resource allocation problem. <i>Science</i> , 2018, 362, 284-286.	12.6	78
31	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
32	Real-time decision-making during emergency disease outbreaks. <i>PLoS Computational Biology</i> , 2018, 14, e1006202.	3.2	46
33	Implicit decision framing as an unrecognized source of confusion in endangered species classification. <i>Conservation Biology</i> , 2018, 32, 1246-1254.	4.7	9
34	Two-step adaptive management for choosing between two management actions. <i>Ecological Applications</i> , 2017, 27, 1210-1222.	3.8	5
35	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
36	New interventions are needed to save coral reefs. <i>Nature Ecology and Evolution</i> , 2017, 1, 1420-1422.	7.8	182

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37	Value of Information Analysis as a Decision Support Tool for Biosecurity. , 2017, , 308-333.		4
38	Harvesting wildlife affected by climate change: a modelling and management approach for polar bears. Journal of Applied Ecology, 2017, 54, 1534-1543.	4.0	69
39	The value of information for woodland management: updating a stateâ€“transition model. Ecosphere, 2017, 8, e01998.	2.2	0
40	Evaluation of harvest and information needs for North American sea ducks. PLoS ONE, 2017, 12, e0175411.	2.5	17
41	Rapid Prototyping for Decision Structuring: An Efficient Approach to Conservation Decision Analysis. , 2017, , 46-64.		23
42	Quantifying the Value of Perfect Information in Emergency Vaccination Campaigns. PLoS Computational Biology, 2017, 13, e1005318.	3.2	16
43	An evaluation of rapid methods for monitoring vegetation characteristics of wetland bird habitat. Wetlands Ecology and Management, 2016, 24, 495-505.	1.5	4
44	A typology of timeâ€“scale mismatches and behavioral interventions to diagnose and solve conservation problems. Conservation Biology, 2016, 30, 42-49.	4.7	31
45	Crossâ€“seasonal effects on waterfowl productivity: Implications under climate change. Journal of Wildlife Management, 2016, 80, 1227-1241.	1.8	22
46	Detecting failure of climate predictions. Nature Climate Change, 2016, 6, 861-864.	18.8	21
47	Expert Elicitation of Population-Level Effects of Disturbance. Advances in Experimental Medicine and Biology, 2016, 875, 295-302.	1.6	3
48	Decision-making for foot-and-mouth disease control: Objectives matter. Epidemics, 2016, 15, 10-19.	3.0	71
49	Are conservation organizations configured for effective adaptation to global change?. Frontiers in Ecology and the Environment, 2015, 13, 163-169.	4.0	24
50	How much is new information worth? Evaluating the financial benefit of resolving management uncertainty. Journal of Applied Ecology, 2015, 52, 12-20.	4.0	73
51	A Collision Risk Model to Predict Avian Fatalities at Wind Facilities: An Example Using Golden Eagles, <i>Aquila chrysaetos</i> . PLoS ONE, 2015, 10, e0130978.	2.5	33
52	Adaptive Management and the Value of Information: Learning Via Intervention in Epidemiology. PLoS Biology, 2014, 12, e1001970.	5.6	98
53	Minimizing the Cost of Keeping Options Open for Conservation in a Changing Climate. Conservation Biology, 2014, 28, 646-653.	4.7	16
54	Identifying Objectives and Alternative Actions to Frame a Decision Problem. , 2014, , 29-43.		9

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55	Application of Threshold Concepts to Ecological Management Problems: Occupancy of Golden Eagles in Denali National Park, Alaska. , 2014, , 67-86.		1
56	Testing Decision Rules for Categorizing Speciesâ€™ Extinction Risk to Help Develop Quantitative Listing Criteria for the U.S. Endangered Species Act. Conservation Biology, 2013, 27, 821-831.	4.7	29
57	A matter of tradeoffs: Reintroduction as a multiple objective decision. Journal of Wildlife Management, 2013, 77, 1145-1156.	1.8	58
58	White-nose syndrome is likely to extirpate the endangered Indiana bat over large parts of its range. Biological Conservation, 2013, 160, 162-172.	4.1	76
59	Active adaptive management for reintroduction of an animal population. Journal of Wildlife Management, 2013, 77, 1135-1144.	1.8	22
60	Combining Structured Decision Making and Valueâ€™ofâ€™Information Analyses to Identify Robust Management Strategies. Conservation Biology, 2012, 26, 810-820.	4.7	56
61	Recent advances in applying decision science to managing national forests. Forest Ecology and Management, 2012, 285, 123-132.	3.2	61
62	Evaluating release alternatives for a long-lived bird species under uncertainty about long-term demographic rates. Journal of Ornithology, 2012, 152, 339-353.	1.1	34
63	A modeling framework for integrated harvest and habitat management of North American waterfowl: Case-study of northern pintail metapopulation dynamics. Ecological Modelling, 2012, 225, 146-158.	2.5	42
64	Managing and learning with multiple models: Objectives and optimization algorithms. Biological Conservation, 2011, 144, 1237-1245.	4.1	33
65	A decision-analytic approach to the optimal allocation of resources for endangered species consultation. Biological Conservation, 2011, 144, 319-329.	4.1	16
66	Conservation in the face of climate change: The roles of alternative models, monitoring, and adaptation in confronting and reducing uncertainty. Biological Conservation, 2011, 144, 1204-1213.	4.1	115
67	The role of demographic compensation theory in incidental take assessments for endangered species. Biological Conservation, 2011, 144, 730-737.	4.1	13
68	Which uncertainty? Using expert elicitation and expected value of information to design an adaptive program. Biological Conservation, 2011, 144, 1214-1223.	4.1	331
69	Incorporating parametric uncertainty into population viability analysis models. Biological Conservation, 2011, 144, 1400-1408.	4.1	90
70	Contain or eradicate? Optimizing the management goal for Australian acacia invasions in the face of uncertainty. Diversity and Distributions, 2011, 17, 1047-1059.	4.1	63
71	An Adaptive-Management Framework for Optimal Control of Hiking Near Golden Eagle Nests in Denali National Park. Conservation Biology, 2011, 25, no-no.	4.7	48
72	Structured decision making as a proactive approach to dealing with sea level rise in Florida. Climatic Change, 2011, 107, 185-202.	3.6	50

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73	Optimal timing for managed relocation of species faced with climate change. <i>Nature Climate Change</i> , 2011, 1, 261-265.	18.8	125
74	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
75	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
76	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
77	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
78	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
79	Reconciling Uncertain Costs and Benefits in Bayes Nets for Invasive Species Management. <i>Risk Analysis</i> , 2010, 30, 277-284.	2.7	26
80	Allocating monitoring effort in the face of unknown unknowns. <i>Ecology Letters</i> , 2010, 13, 1325-1337.	6.4	136
81	Breeding Biology of Grassland Birds in Western New York: Conservation and Management Implications. <i>Avian Conservation and Ecology</i> , 2010, 5, .	0.8	8
82	Climate change threatens polar bear populations: a stochastic demographic analysis. <i>Ecology</i> , 2010, 91, 2883-2897.	3.2	203
83	Active adaptive conservation of threatened species in the face of uncertainty. <i>Ecological Applications</i> , 2010, 20, 1476-1489.	3.8	85
84	Evaluation of a Reproductive Index for Estimating Productivity of Grassland Breeding Birds. <i>Auk</i> , 2010, 127, 86-93.	1.4	9
85	Optimal control of native predators. <i>Biological Conservation</i> , 2010, 143, 1751-1758.	4.1	28
86	Assessing Allowable Take of Migratory Birds. <i>Journal of Wildlife Management</i> , 2009, 73, 556-565.	1.8	60
87	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
88	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
89	Monitoring in the Context of Structured Decision-Making and Adaptive Management. <i>Journal of Wildlife Management</i> , 2008, 72, 1683-1692.	1.8	228
90	Optimal control of Atlantic population Canada geese. <i>Ecological Modelling</i> , 2007, 201, 27-36.	2.5	28

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91	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
92	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
93	The Need for Coherence Between Waterfowl Harvest and Habitat Management. <i>Wildlife Society Bulletin</i> , 2006, 34, 1231-1237.	1.6	32
94	Planning for robust reserve networks using uncertainty analysis. <i>Ecological Modelling</i> , 2006, 199, 115-124.	2.5	95
95	Introduced species as evolutionary traps. <i>Ecology Letters</i> , 2005, 8, 241-246.	6.4	270
96	A STAGE-BASED MODEL OF MANATEE POPULATION DYNAMICS. <i>Marine Mammal Science</i> , 2004, 20, 361-385.	1.8	35
97	CAPTURE-RECAPTURE ANALYSIS FOR ESTIMATING MANATEE REPRODUCTIVE RATES. <i>Marine Mammal Science</i> , 2004, 20, 424-437.	1.8	48
98	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
99	THE IMPORTANCE OF FUNCTIONAL FORM IN OPTIMAL CONTROL SOLUTIONS OF PROBLEMS IN POPULATION DYNAMICS. <i>Ecology</i> , 2002, 83, 1357-1371.	3.2	56
100	DEMOGRAPHY OF A POPULATION COLLAPSE: THE NORTHERN IDAHO GROUND SQUIRREL (<i>SPERMOPHILLUS</i>) Tj ETQ q 0 0 rgBT /Overlo	3.2	61
101	Ecological and evolutionary traps. <i>Trends in Ecology and Evolution</i> , 2002, 17, 474-480.	8.7	1,113
102	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
103	A modified model for projecting age-structured populations in random environments. <i>Mathematical Biosciences</i> , 1998, 150, 21-41.	1.9	8
104	Evaluating the risk of SARSâ€CoVâ€2 transmission to bats in the context of wildlife research, rehabilitation, and control. <i>Wildlife Society Bulletin</i> , 0, , .	0.8	1
105	Projected resurgence of COVID-19 in the United States in Julyâ€December 2021 resulting from the increased transmissibility of the Delta variant and faltering vaccination. <i>ELife</i> , 0, 11, .	6.0	22