Mevin B Hooten

List of Publications by Year
in descending order

135 papers	6,087 citations	101543 36 h-index	98798 67 g-index
142 all docs	142 docs citations	142 times ranked	7161 citing authors

#	Article	IF	Citations
1	A guide to Bayesian model selection for ecologists. Ecological Monographs, 2015, 85, 3-28.	5.4	589
2	Iterative near-term ecological forecasting: Needs, opportunities, and challenges. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1424-1432.	7.1	400
3	Practical guidance on characterizing availability in resource selection functions under a useâ€“availability design. Ecology, 2013, 94, 1456-1463.	3.2	278
4	On the use of log-transformation vs. nonlinear regression for analyzing biological power laws. Ecology, 2011, 92, 1887-1894.	3.2	253
5	Animal Movement. , 0, , .		195
6	A guide to Bayesian model checking for ecologists. Ecological Monographs, 2018, 88, 526-542.	5.4	164
7	A general science-based framework for dynamical spatio-temporal models. Test, 2010, 19, 417-451.	1.1	147
8	Forest species diversity reduces disease risk in a generalist plant pathogen invasion. Ecology Letters, 2011, 14, 1108-1116.	6.4	143
9	Spatial occupancy models for large data sets. Ecology, 2013, 94, 801-808.	3.2	135
10	Spatial autoregressive models for statistical inference from ecological data. Ecological Monographs, 2018, 88, 36-59.	5.4	128
11	A hierarchical Bayesian non-linear spatio-temporal model for the spread of invasive species with application to the Eurasian Collared-Dove. Environmental and Ecological Statistics, 2008, 15, 59-70.	3.5	125
12	Restricted spatial regression in practice: geostatistical models, confounding, and robustness under model misspecification. Environmetrics, 2015, 26, 243-254.	1.4	108
13	Climate influences the demography of three dominant sagebrush steppe plants. Ecology, 2011, 92, 75-85.	3.2	98
14	Model selection and assessment for multiâ€species occupancy models. Ecology, 2016, 97, 1759-1770.	3.2	97
15	The basis function approach for modeling autocorrelation in ecological data. Ecology, 2017, 98, 632-646.	3.2	87
16	Hierarchical Spatiotemporal Matrix Models for Characterizing Invasions. Biometrics, 2007, 63, 558-567.	1.4	78
17	Estimating animal resource selection from telemetry data using point process models. Journal of Animal Ecology, 2013, 82, 1155-1164.	2.8	75
18	When to be discrete: the importance of time formulation in understanding animal movement. Movement Ecology, 2014, 2, 21.	2.8	73

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19	Circuit Theory and Model-Based Inference for Landscape Connectivity. Journal of the American Statistical Association, 2013, 108, 22-33.	3.1	69
20	Statistical Agent-Based Models for Discrete Spatio-Temporal Systems. Journal of the American Statistical Association, 2010, 105, 236-248.	3.1	65
21	Fragmentation and thermal risks from climate change interact to affect persistence of native trout in the Colorado River basin. Global Change Biology, 2013, 19, 1383-1398.	9.5	65
22	Title is missing!. Landscape Ecology, 2003, 18, 487-502.	4.2	62
23	Hierarchical Species Distribution Models. Current Landscape Ecology Reports, 2016, 1, 87-97.	2.2	62
24	Agent-Based Inference for Animal Movement and Selection. Journal of Agricultural, Biological, and Environmental Statistics, 2010, 15, 523-538.	1.4	60
25	Homogenization of Large-Scale Movement Models inÂEcology. Bulletin of Mathematical Biology, 2011, 73, 2088-2108.	1.9	60
26	Continuous-time discrete-space models for animal movement. Annals of Applied Statistics, 2015, 9, .	1.1	60
27	When mechanism matters: Bayesian forecasting using models of ecological diffusion. Ecology Letters, 2017, 20, 640-650.	6.4	57
28	Dynamic occupancy models for explicit colonization processes. Ecology, 2016, 97, 194-204.	3.2	55
29	Uncertainty in biological monitoring: a framework for data collection and analysis to account for multiple sources of sampling bias. Methods in Ecology and Evolution, 2016, 7, 900-909.	5.2	53
30	Hierarchical animal movement models for populationâ€level inference. Environmetrics, 2016, 27, 322-333.	1.4	52
31	Reconciling resource utilization and resource selection functions. Journal of Animal Ecology, 2013, 82, 1146-1154.	2.8	50
32	Inferring infection hazard in wildlife populations by linking data across individual and population scales. Ecology Letters, 2017, 20, 275-292.	6.4	50
33	Velocity-Based Movement Modeling for Individual and Population Level Inference. PLoS ONE, 2011, 6, e22795.	2.5	49
34	Animal movement constraints improve resource selection inference in the presence of telemetry error. Ecology, 2015, 96, 2590-2597.	3.2	47
35	Stateâ€space modeling to support management of brucellosis in the Yellowstone bison population. Ecological Monographs, 2015, 85, 525-556.	5.4	46
36	An integrated data model to estimate spatiotemporal occupancy, abundance, and colonization dynamics. Ecology, 2017, 98, 328-336.	3.2	43

#	Article	IF	Citations
37	Assessing First-Order Emulator Inference for Physical Parameters in Nonlinear Mechanistic Models. Journal of Agricultural, Biological, and Environmental Statistics, 2011, 16, 475-494.	1.4	42
38	Assessing North American influenza dynamics with a statistical SIRS model. Spatial and Spatio-temporal Epidemiology, 2010, 1, 177-185.	1.7	40
39	Using spatiotemporal statistical models to estimate animal abundance and infer ecological dynamics from survey counts. Ecological Monographs, 2015, 85, 235-252.	5.4	40
40	On the relationship between conditional (CAR) and simultaneous (SAR) autoregressive models. Spatial Statistics, 2018, 25, 68-85.	1.9	40
41	Bringing Bayesian Models to Life. , 0, , .		40
42	Combining statistical inference and decisions in ecology. Ecological Applications, 2016, 26, 1930-1942.	3.8	38
43	Reconciling multiple data sources to improve accuracy of large-scale prediction of forest disease incidence. , 2011, 21, 1173-1188.		36
44	Inferring invasive species abundance using removal data from management actions. Ecological Applications, 2016, 26, 2339-2346.	3.8	36
45	Forecasting climate change impacts on plant populations over large spatial extents. Ecosphere, 2016, 7, e01525.	2.2	35
46	A functional model for characterizing longâ€distance movement behaviour. Methods in Ecology and Evolution, 2016, 7, 264-273.	5.2	35
47	Safari Science: assessing the reliability of citizen science data for wildlife surveys. Journal of Applied Ecology, 2017, 54, 2053-2062.	4.0	34
48	Making Recursive Bayesian Inference Accessible. American Statistician, 2021, 75, 185-194.	1.6	34
49	Evaluating breeding and metamorph occupancy and vernal pool management effects for wood frogs using a hierarchical model. Journal of Applied Ecology, 2013, 50, 1116-1123.	4.0	33
50	Temporal variation and scale in movement-based resource selection functions. Statistical Methodology, 2014, 17, 82-98.	0.5	33
51	Do we need demographic data to forecast plant population dynamics?. Methods in Ecology and Evolution, 2017, 8, 541-551.	5.2	32
52	Optimal population prediction of sandhill crane recruitment based on climateâ€mediated habitat limitations. Journal of Animal Ecology, 2015, 84, 1299-1310.	2.8	31
53	Dynamic social networks based on movement. Annals of Applied Statistics, 2016, 10, .	1.1	30
54	Estimating occupancy and abundance using aerial images with imperfect detection. Methods in Ecology and Evolution, 2017, 8, 1679-1689.	5.2	30

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55	Monitoring dynamic spatioâ€temporal ecological processes optimally. Ecology, 2018, 99, 524-535.	3.2	30
56	Imputation Approaches for Animal Movement Modeling. Journal of Agricultural, Biological, and Environmental Statistics, 2017, 22, 335-352.	1.4	29
57	Optimal spatioâ€temporal hybrid sampling designs for ecological monitoring. Journal of Vegetation Science, 2009, 20, 639-649.	2.2	28
58	Accounting for imperfect detection in Hill numbers for biodiversity studies. Methods in Ecology and Evolution, 2015, 6, 99-108.	5.2	28
59	Dynamic spatio-temporal models for spatial data. Spatial Statistics, 2017, 20, 206-220.	1.9	28
60	Assessing potential health risks to fish and humans using mercury concentrations in inland fish from across western Canada and the United States. Science of the Total Environment, 2016, 571, 342-354.	8.0	27
61	The Bayesian Group Lasso for Confounded Spatial Data. Journal of Agricultural, Biological, and Environmental Statistics, 2017, 22, 42-59.	1.4	27
62	Spatially structured statistical network models for landscape genetics. Ecological Monographs, 2019, 89, e01355.	5.4	27
63	An integrated modeling approach to estimating Gunnison sageâ€grouse population dynamics: combining index and demographic data. Ecology and Evolution, 2014, 4, 4247-4257.	1.9	26
64	On the existence of maximum likelihood estimates for presenceâ€only data. Methods in Ecology and Evolution, 2015, 6, 648-655.	5.2	25
65	Prey-mediated avoidance of an intraguild predator by its intraguild prey. Oecologia, 2010, 164, 921-929.	2.0	24
66	Atâ€"Sea Behavior Varies with Lunar Phase in a Nocturnal Pelagic Seabird, the Swallow-Tailed Gull. PLoS ONE, 2013, 8, e56889.	2.5	24
67	Forecasting the Effects of Fertility Control on Overabundant Ungulates: White-Tailed Deer in the National Capital Region. PLoS ONE, 2015, 10, e0143122.	2.5	24
68	When can the cause of a population decline be determined?. Ecology Letters, 2016, 19, 1353-1362.	6.4	24
69	Movement reveals scale dependence in habitat selection of a large ungulate. Ecological Applications, 2016, 26, 2746-2757.	3.8	24
70	Extreme site fidelity as an optimal strategy in an unpredictable and homogeneous environment. Functional Ecology, 2019, 33, 1695-1707.	3.6	24
71	Running on empty: recharge dynamics from animal movement data. Ecology Letters, 2019, 22, 377-389.	6.4	24
72	Accounting for Individuals, Uncertainty, and Multiscale Clustering in Core Area Estimation. Journal of Wildlife Management, 2010, 74, 1343-1352.	1.8	23

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73	An Accessible Method for Implementing Hierarchical Models with Spatio-Temporal Abundance Data. PLoS ONE, 2012, 7, e49395.	2.5	23
74	Computationally Efficient Statistical Differential Equation Modeling Using Homogenization. Journal of Agricultural, Biological, and Environmental Statistics, 2013, 18, 405-428.	1.4	23
75	Homogenization, sex, and differential motility predict spread of chronic wasting disease in mule deer in southern Utah. Journal of Mathematical Biology, 2014, 69, 369-399.	1.9	23
76	Basis Function Models for Animal Movement. Journal of the American Statistical Association, 2017, 112, 578-589.	3.1	23
77	Nonnative Trout Invasions Combined with Climate Change Threaten Persistence of Isolated Cutthroat Trout Populations in the Southern Rocky Mountains. North American Journal of Fisheries Management, 2017, 37, 314-325.	1.0	22
78	Mapping pre-European settlement vegetation at fine resolutions using a hierarchical Bayesian model and GIS. Plant Ecology, 2007, 191, 85-94.	1.6	21
79	Shifts in the spatio-temporal growth dynamics of shortleaf pine. Environmental and Ecological Statistics, 2007, 14, 207-227.	3.5	20
80	Hierarchical spatial models for predicting pygmy rabbit distribution and relative abundance. Journal of Applied Ecology, 2010, 47, 401-409.	4.0	20
81	The influence of external subsidies on diet, growth and Hg concentrations of freshwater sport fish: implications for management and fish consumption advisories. Ecotoxicology, 2012, 21, 1878-1888.	2.4	18
82	Bias correction of bounded location errors in presenceâ€only data. Methods in Ecology and Evolution, 2017, 8, 1566-1573.	5.2	18
83	Process convolution approaches for modeling interacting trajectories. Environmetrics, 2018, 29, e2487.	1.4	16
84	What processes must we understand to forecast regional-scale population dynamics?. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20202219.	2.6	16
85	Models for Bounded Systems with Continuous Dynamics. Biometrics, 2009, 65, 850-856.	1.4	15
86	Accounting for location uncertainty in azimuthal telemetry data improves ecological inference. Movement Ecology, 2018, 6, 14.	2.8	15
87	Estimating abundance of an open population with an N â€mixture model using auxiliary data on animal movements. Ecological Applications, 2018, 28, 816-825.	3.8	14
88	Time-varying predatory behavior is primary predictor of fine-scale movement of wildland-urban cougars. Movement Ecology, 2018, 6, 22.	2.8	14
89	The rise of an apex predator following deglaciation. Diversity and Distributions, 2019, 25, 895-908.	4.1	14
90	Accounting for Individuals, Uncertainty, and Multiscale Clustering in Core Area Estimation. Journal of Wildlife Management, 2010, 74, 1343-1352.	1.8	13

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91	Reflected Stochastic Differential Equation Models for Constrained Animal Movement. Journal of Agricultural, Biological, and Environmental Statistics, 2017, 22, 353-372.	1.4	13
92	Animal movement models for migratory individuals and groups. Methods in Ecology and Evolution, 2018, 9, 1692-1705.	5.2	13
93	Largeâ€scale movement behavior in a reintroduced predator population. Ecography, 2018, 41, 126-139.	4.5	13
94	Compound effects of water clarity, inflow, wind and climate warming on mountain lake thermal regimes. Aquatic Sciences, 2020, 82, 1.	1.5	13
95	Statistical Implementations of Agentâ€Based Demographic Models. International Statistical Review, 2020, 88, 441-461.	1.9	13
96	Reconstruction of late Holocene climate based on tree growth and mechanistic hierarchical models. Environmetrics, 2016, 27, 42-54.	1.4	11
97	Estimating lakeâ€"climate responses from sparse data: An application to high elevation lakes. Limnology and Oceanography, 2019, 64, 1371-1385.	3.1	11
98	Accounting for Phenology in the Analysis of Animal Movement. Biometrics, 2019, 75, 810-820.	1.4	11
99	Nonlinear reactionâ€"diffusion process models improve inference for population dynamics. Environmetrics, 2020, 31, e2604.	1.4	11
100	Predicting effects of largeâ€scale reforestation on native and exotic birds. Diversity and Distributions, 2018, 24, 811-819.	4.1	10
101	Optimal spatio-temporal monitoring designs for characterizing population trends. , 2012, , 443-459.		9
102	A modelâ€based approach to wildland fire reconstruction using sediment charcoal records. Environmetrics, 2017, 28, e2450.	1.4	9
103	Summer spatial patterning of chukars in relation to free water in western Utah. Landscape Ecology, 2010, 25, 135-145.	4.2	8
104	Animal movement models with mechanistic selection functions. Spatial Statistics, 2020, 37, 100406.	1.9	8
105	Diffusion modeling reveals effects of multiple release sites and human activity on a recolonizing apex predator. Movement Ecology, 2021, 9, 34.	2.8	8
106	Linking mosquito surveillance to dengue fever through Bayesian mechanistic modeling. PLoS Neglected Tropical Diseases, 2020, 14, e0008868.	3.0	8
107	Hierarchical computing for hierarchical models in ecology. Methods in Ecology and Evolution, 2021, 12, 245-254.	5.2	7
108	Statistical Challenges in Agent-Based Modeling. American Statistician, 2021, 75, 235-242.	1.6	7

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109	Rapid proliferation of the parasitic copepod, <i>Salmincola californiensis</i> (Dana), on kokanee salmon, <i>Oncorhynchus nerka</i> (Walbaum), in a large Colorado reservoir. Journal of Fish Diseases, 2022, 45, 89-98.	1.9	6
110	Searching for refuge: A framework for identifying site factors conferring resistance to climateâ€driven vegetation change. Diversity and Distributions, 2022, 28, 793-809.	4.1	6
111	Multi-Fraction Bayesian Sediment Transport Model. Journal of Marine Science and Engineering, 2015, 3, 1066-1092.	2.6	5
112	Guest Editorâ€™s Introduction to the Special Issue on â€œAnimal Movement Modelingâ€. Journal of Agricultural, Biological, and Environmental Statistics, 2017, 22, 224-231.	1.4	5
113	Comparing and improving methods for reconstructing peatland water-table depth from testate amoebae. Holocene, 2019, 29, 1350-1361.	1.7	5
114	Leveraging constraints and biotelemetry data to pinpoint repetitively used spatial features. Ecology, 2017, 98, 12-20.	3.2	4
115	Modelâ€based clustering reveals patterns in central place use of a marine top predator. Ecosphere, 2020, 11, e03123.	2.2	4
116	Improving inferences about private land conservation by accounting for incomplete reporting. Conservation Biology, 2021, 35, 1174-1185.	4.7	4
117	Recursive Bayesian computation facilitates adaptive optimal design in ecological studies. Ecology, 2022, 103, e03573.	3.2	4
118	Scaleâ€dependent influence of the sagebrush community on genetic connectivity of the sagebrush obligate Gunnison sageâ€grouse. Molecular Ecology, 2022, 31, 3267-3285.	3.9	4
119	Community confounding in joint species distribution models. Scientific Reports, 2022, 12, .	3.3	4
120	Multivariate Bayesian clustering using covariateâ€informed components with application to boreal vegetation sensitivity. Biometrics, 2022, 78, 1427-1440.	1.4	3
121	Hierarchical Spatial Models. , 2017, , 837-846.		3
122	Rejoinder on: A general science-based framework forÂdynamical spatio-temporal models. Test, 2010, 19, 466-468.	1.1	2
123	Individual heterogeneity influences the effects of translocation on urban dispersal of an invasive reptile. Movement Ecology, 2022, 10, 2.	2.8	2
124	Bayesian inverse reinforcement learning for collective animal movement. Annals of Applied Statistics, 2022, 16, .	1.1	2
125	A Bayesian model for predicting local El NiÃ±o events using tree ring widths and cellulose <i>Î´</i>¹⁸O. Journal of Geophysical Research, 2010, 115, .	3.3	1
126	Guest Editorâ€™s Introduction to the Special Issue on â€œModern Dimension Reduction Methods for Big Data Problems in Ecologyâ€. Journal of Agricultural, Biological, and Environmental Statistics, 2013, 18, 271-273.	1.4	1

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127	Improving Wildlife Population Inference Using Aerial Imagery and Entity Resolution. Journal of Agricultural, Biological, and Environmental Statistics, 0, , 1.	1.4	1
128	Constructing Flexible, Identifiable and Interpretable Statistical Models for Binary Data. International Statistical Review, 2022, 90, 328-345.	1.9	1
129	Bridging implementation gaps to connect large ecological datasets and complex models. Ecology and Evolution, 2021, 11, 18271-18287.	1.9	1
130	Linking male reproductive success to effort within and among nests in a coâ€breeding stream fish. Ethology, 2022, 128, 489-498.	1.1	1
131	Comments on: Inference for Size Demography From Point Process Data Using Integral Projection Models. Journal of Agricultural, Biological, and Environmental Statistics, 2012, 17, 690-692.	1.4	0
132	A Bayesian hierarchical model for forecasting intermountain snow dynamics. Environmetrics, 2014, 25, 324-340.	1.4	0
133	Hierarchical Spatial Models. , 2015, , 1-10.		0
134	Models for Ecological Models: Ocean Primary Productivity. Chance, 2016, 29, 23-30.	0.2	0
135	Greater Than the Sum of its Parts: Computationally Flexible Bayesian Hierarchical Modeling. Journal of Agricultural, Biological, and Environmental Statistics, 2022, 27, 382.	1.4	0