John M Fryxell

List of Publications by Year
in descending order

105	8,441	53660 45	48187 88
papers	citations	h-index	g-index

108	108	108	7502
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Moving in the Anthropocene: Global reductions in terrestrial mammalian movements. Science, 2018, 359, 466-469.	6.0	783
2	EXTRACTING MORE OUT OF RELOCATION DATA: BUILDING MOVEMENT MODELS AS MIXTURES OF RANDOM WALKS. Ecology, 2004, 85, 2436-2445.	1.5	607
3	Forage Quality and Aggregation by Large Herbivores. American Naturalist, 1991, 138, 478-498.	1.0	378
4	HUMAN ACTIVITY MEDIATES A TROPHIC CASCADE CAUSED BY WOLVES. Ecology, 2005, 86, 2135-2144.	1.5	359
5	Why are Migratory Ungulates So Abundant?. American Naturalist, 1988, 131, 781-798.	1.0	332
6	Multiple movement modes by large herbivores at multiple spatiotemporal scales. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19114-19119.	3.3	301
7	The predator-prey power law: Biomass scaling across terrestrial and aquatic biomes. Science, 2015, 349, aac6284.	6.0	235
8	Forage quality and patch choice by wapiti (Cervus elaphus). Behavioral Ecology, 1995, 6, 209-217.	1.0	198
9	Opposing Rainfall and Plant Nutritional Gradients Best Explain the Wildebeest Migration in the Serengeti. American Naturalist, 2009, 173, 431-445.	1.0	197
10	Can parks protect migratory ungulates? The case of the Serengeti wildebeest. Animal Conservation, 2004, 7, 113-120.	1.5	188
11	Group formation stabilizes predatorâ€“prey dynamics. Nature, 2007, 449, 1041-1043.	13.7	185
12	PREDICTIVE MODELS OF MOVEMENT BY SERENGETI GRAZERS. Ecology, 2004, 85, 2429-2435.	1.5	174
13	Landscape scale, heterogeneity, and the viability of Serengeti grazers. Ecology Letters, 2005, 8, 328-335.	3.0	172
14	Ungulate foraging strategies: energy maximizing or time minimizing?. Journal of Animal Ecology, 2001, 70, 289-300.	1.3	168
15	The allometry of patch selection in ruminants. Proceedings of the Royal Society B: Biological Sciences, 2000, 267, 345-349.	1.2	167
16	Long-Term Ecosystem Dynamics in the Serengeti: Lessons for Conservation. Conservation Biology, 2007, 21, 580-590.	2.4	161
17	Grazers, browsers, and fire influence the extent and spatial pattern of tree cover in the Serengeti. Ecological Applications, 2009, 19, 95-109.	1.8	156
18	Environmental and individual drivers of animal movement patterns across a wide geographical gradient. Journal of Animal Ecology, 2013, 82, 96-106.	1.3	133

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19	Genetic isolation by distance and landscape connectivity in the American marten (Martes americana). Landscape Ecology, 2006, 21, 877-889.	1.9	125
20	Accuracy of forest inventory mapping: Some implications for boreal forest management. Forest Ecology and Management, 2007, 252, 208-221.	1.4	125
21	HABITAT-MEDIATED VARIATION IN PREDATION RISK BY THE AMERICAN MARTEN. Ecology, 2008, 89, 2273-2280.	1.5	117
22	Serengeti real estate: density vs. fitnessâ€based indicators of lion habitat quality. Ecology Letters, 2009, 12, 1050-1060.	3.0	117
23	Individual Behavior and Community Dynamics. , 1998, , .		109
24	THE TEMPORAL SCALE OF FORAGING DECISIONS IN BISON. Ecology, 2002, 83, 970-982.	1.5	107
25	Resource Management Cycles and the Sustainability of Harvested Wildlife Populations. Science, 2010, 328, 903-906.	6.0	106
26	The scale-dependent impact of wolf predation risk on resource selection by three sympatric ungulates. Oecologia, 2008, 157, 163-175.	0.9	96
27	Time Lags and Population Fluctuations in White-Tailed Deer. Journal of Wildlife Management, 1991, 55, 377.	0.7	94
28	Fitting Probability Distributions to Animal Movement Trajectories: Using Artificial Neural Networks to Link Distance, Resources, and Memory. American Naturalist, 2008, 172, 248-258.	1.0	92
29	Spaceâ€use behaviour of woodland caribou based on a cognitive movement model. Journal of Animal Ecology, 2015, 84, 1059-1070.	1.3	91
30	FLUCTUATIONS OF DEER MICE IN ONTARIO IN RELATION TO SEED CROPS. Ecological Monographs, 2007, 77, 19-32.	2.4	88
31	LONG-TERM DYNAMICS OF SMALL-MAMMAL POPULATIONS IN ONTARIO. Ecology, 1998, 79, 213-225.	1.5	87
32	Predicted Impact of Barriers to Migration on the Serengeti Wildebeest Population. PLoS ONE, 2011, 6, e16370.	1.1	81
33	What Constrains Daily Intake in Thomson's Gazelles?. Ecology, 1999, 80, 2338.	1.5	80
34	Socially informed random walks: incorporating group dynamics into models of population spread and growth. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 1101-1109.	1.2	75
35	Mortality risk increases with natal dispersal distance in American martens. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 3361-3367.	1.2	75
36	Impact of beaver foraging on structure of lowland boreal forests of Algonquin Provincial Park, Ontario. Forest Ecology and Management, 1999, 118, 83-92.	1.4	74

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37	DENSITY DEPENDENCE, PREY DEPENDENCE, AND POPULATION DYNAMICS OF MARTENS IN ONTARIO. Ecology, 1999, 80, 1311-1321.	1.5	74
38	The Effect of Nutritional Quality on Forage Preference by Beavers. Oikos, 1993, 67, 201.	1.2	71
39	An empirically parameterized individual based model of animal movement, perception, and memory. Ecological Modelling, 2013, 251, 158-172.	1.2	71
40	Wolves adapt territory size, not pack size to local habitat quality. Journal of Animal Ecology, 2015, 84, 1177-1186.	1.3	71
41	Factors influencing the seasonal diet selection by woodland caribou (Rangifer tarandus) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	0.4	69
42	Population Dynamics of Newfoundland Moose Using Cohort Analysis. Journal of Wildlife Management, 1988, 52, 14.	0.7	55
43	Mid-day temperature variation influences seasonal habitat selection by moose. Journal of Wildlife Management, 2015, 79, 505-512.	0.7	53
44	Ungulate foraging strategies: energy maximizing or time minimizing?. Journal of Animal Ecology, 2001, 70, 289-300.	1.3	52
45	Collective decisionâ€making promotes fitness loss in a fusionâ€fission society. Ecology Letters, 2017, 20, 33-40.	3.0	50
46	Examination of two new technologies to assess the diet of woodland caribou: video recorders attached to collars and DNA barcoding. Canadian Journal of Forest Research, 2013, 43, 897-900.	0.8	48
47	Phase separation driven by density-dependent movement: A novel mechanism for ecological patterns. Physics of Life Reviews, 2016, 19, 107-121.	1.5	46
48	Patch selection by red deer in relation to energy and protein intake: a re-evaluation of Langvatn and Hanley's (1993) results. Oecologia, 1995, 104, 297-300.	0.9	45
49	Habitat selection patterns are density dependent under the ideal free distribution. Journal of Animal Ecology, 2020, 89, 2777-2787.	1.3	43
50	Movement and Spread of a Founding Population of Reintroduced Elk (Cervus elaphus) in Ontario, Canada. Restoration Ecology, 2011, 19, 70-77.	1.4	41
51	WHAT CONSTRAINS DAILY INTAKE IN THOMSONâ€™S GAZELLES?. Ecology, 1999, 80, 2338-2347.	1.5	39
52	Landscapeâ€level wolf space use is correlated with prey abundance, ease of mobility, and the distribution of prey habitat. Ecosphere, 2017, 8, e01783.	1.0	39
53	Large birds travel farther in homogeneous environments. Global Ecology and Biogeography, 2019, 28, 576-587.	2.7	39
54	Why are we not evaluating multiple competing hypotheses in ecology and evolution?. Royal Society Open Science, 2017, 4, 160756.	1.1	37

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55	Application of a highâ€resolution animalâ€borne remote video camera with global positioning for wildlife study: Observations on the secret lives of woodland caribou. Wildlife Society Bulletin, 2012, 36, 365-370.	1.6	35
56	Environmental change and the evolution of migration. Ecology, 2013, 94, 1274-1279.	1.5	35
57	Anthropogenic Disturbance and Population Viability of Woodland Caribou in Ontario. Journal of Wildlife Management, 2020, 84, 636-650.	0.7	35
58	Compensatory selection for roads over natural linear features by wolves in northern Ontario: Implications for caribou conservation. PLoS ONE, 2017, 12, e0186525.	1.1	33
59	Rotifer population spread in relation to food, density and predation risk in an experimental system. Journal of Animal Ecology, 2012, 81, 323-329.	1.3	32
60	Diel movement patterns influence daily variation in wolf kill rates on moose. Functional Ecology, 2016, 30, 1568-1573.	1.7	32
61	Woodland caribou habitat selection patterns in relation to predation risk and forage abundance depend on reproductive state. Ecology and Evolution, 2018, 8, 5863-5872.	0.8	31
62	Towards an energetic landscape: broadâ€scale accelerometry in woodland caribou. Journal of Animal Ecology, 2014, 83, 916-922.	1.3	30
63	Learning and Animal Movement. Frontiers in Ecology and Evolution, 2021, 9, .	1.1	28
64	Asynchronous food-web pathways could buffer the response of Serengeti predators to El NiÃ±o Southern Oscillation. Ecology, 2013, 94, 1123-1130.	1.5	27
65	Habitat selection following recent disturbance: model transferability with implications for management and conservation of moose (Alces alces). Canadian Journal of Zoology, 2015, 93, 813-821.	0.4	27
66	Landscape-level movement patterns by lions in western Serengeti: comparing the influence of inter-specific competitors, habitat attributes and prey availability. Movement Ecology, 2016, 4, 17.	1.3	27
67	Densityâ€and resourceâ€dependent movement characteristics in a rotifer. Functional Ecology, 2013, 27, 323-328.	1.7	24
68	Herbivoreâ€“vegetation feedbacks can expand the range of savanna persistence: insights from a simple theoretical model. Oikos, 2013, 122, 441-453.	1.2	24
69	Habitat suitability and sourceâ€“sink dynamics of beavers. Journal of Animal Ecology, 2001, 70, 310-316.	1.3	23
70	Linking Rates of Diffusion and Consumption in Relation to Resources. American Naturalist, 2011, 178, 182-190.	1.0	21
71	Selection for forage and avoidance of risk by woodland caribou (Rangifer tarandus caribou) at coarse and local scales. Ecosphere, 2015, 6, 1-11.	1.0	20
72	Body size and digestive system shape resource selection by ungulates: A crossâ€taxa test of the forage maturation hypothesis. Ecology Letters, 2021, 24, 2178-2191.	3.0	19

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73	Harvest dynamics of mustelid carnivores in Ontario, Canada. Wildlife Biology, 2001, 7, 151-159.	0.6	19
74	Evolutionary dynamics of habitat use. Evolutionary Ecology, 1997, 11, 687-701.	0.5	17
75	Harvest reserves reduce extinction risk in an experimental microcosm. Ecology Letters, 2006, 9, 1025-1031.	3.0	17
76	Supply and demand drive a critical transition to dysfunctional fisheries. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12333-12337.	3.3	17
77	Fitness trade-offs of group formation and movement by Thomson's gazelles in the Serengeti ecosystem. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170013.	1.8	17
78	Bulk arthropod abundance, biomass and diversity estimation using deep learning for computer vision. Methods in Ecology and Evolution, 2022, 13, 346-357.	2.2	17
79	Characterizing demographic parameters across environmental gradients: a case study with Ontario moose (Alces alces). Ecosphere, 2015, 6, 1-13.	1.0	16
80	Estimating the perâ€€capita contribution of habitats and pathways in a migratory network: a modelling approach. Ecography, 2018, 41, 815-824.	2.1	16
81	Predicting and Assessing Progress in the Restoration of Ecosystems. Conservation Letters, 2018, 11, e12390.	2.8	16
82	The dynamical implications of human behaviour on a social-ecological harvesting model. Theoretical Ecology, 2017, 10, 341-354.	0.4	15
83	Biting flies and activity of caribou in the boreal forest. Journal of Wildlife Management, 2018, 82, 833-839.	0.7	15
84	Calcium interacts with temperature to influence Daphnia movement rates. Royal Society Open Science, 2016, 3, 160537.	1.1	13
85	Evaluation of alternative prey-, predator-, and ratio-dependent functional response models in a zooplankton microcosm. Canadian Journal of Zoology, 2017, 95, 177-182.	0.4	12
86	Defining and classifying migratory habitats as sources and sinks: The migratory pathway approach. Journal of Applied Ecology, 2018, 55, 108-117.	1.9	12
87	Do trappers understand marten habitat?. Journal of Wildlife Management, 2013, 77, 379-391.	0.7	11
88	Do animal size, seasons and vegetation type influence detection probability and density estimates of Serengeti ungulates?. African Journal of Ecology, 2016, 54, 29-38.	0.4	11
89	Effects of disturbance on understory succession in upland and lowland boreal forests and implications for woodland caribou (Rangifer tarandus caribou). Forest Ecology and Management, 2016, 364, 17-26.	1.4	11
90	Comparing resource selection and demographic models for predicting animal density. Journal of Wildlife Management, 2017, 81, 16-25.	0.7	11

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91	Solving the sample size problem for resource selection functions. Methods in Ecology and Evolution, 2021, 12, 2421-2431.	2.2	11
92	Temperature triggers a nonâ€linear response in resourceâ€“consumer interaction strength. Ecosphere, 2019, 10, e02787.	1.0	10
93	Effects of interspecific interaction-linked habitat factors on moose resource selection and environmental stress. Scientific Reports, 2017, 7, 41514.	1.6	9
94	Resource selection, utilization and seasons influence spatial distribution of ungulates in the western Serengeti National Park. African Journal of Ecology, 2018, 56, 3-11.	0.4	9
95	The influence of food availability, quality and body size on patch selection of coexisting grazer ungulates in western Serengeti National Park. Wildlife Research, 2019, 46, 54.	0.7	9
96	Patchy distribution and low effective population size raise concern for an atâ€risk top predator. Diversity and Distributions, 2017, 23, 79-89.	1.9	8
97	Fine-scale winter resource selection by American martens in boreal forests and the effect of snow depth on access to coarse woody debris. Ecoscience, 2014, 21, 123-132.	0.6	7
98	Transgenerational plasticity mediates temperature effects on fitness in the water flea Daphnia magna. Canadian Journal of Zoology, 2020, 98, 661-665.	0.4	7
99	USING KNOWLEDGE OF RECRUITMENT TO MANAGE HARVESTING. Ecology, 2004, 85, 78-85.	1.5	6
100	Daphnia inhibits the emergence of spatial pattern in a simple consumerâ€“resource system. Ecology, 2017, 98, 1163-1170.	1.5	6
101	Evaluating expertâ€based habitat suitability information of terrestrial mammals with <scp>GPSâ€</scp>tracking data. Global Ecology and Biogeography, 2022, 31, 1526-1541.	2.7	6
102	Harvesting can stabilise population fluctuations and buffer the impacts of extreme climatic events. Ecology Letters, 2022, 25, 863-875.	3.0	3
103	Bridging physics and biology. Physics of Life Reviews, 2016, 19, 142-146.	1.5	2
104	Population cycles can maintain foraging polymorphism. Proceedings of the Royal Society B: Biological Sciences, 1999, 266, 1277-1281.	1.2	1
105	Life-history models reconstruct mammalian evolution. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1839-1841.	3.3	0