John M Fryxell

List of Publications by Year in descending order

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105 papers

8,441 citations

45 h-index 48187 88 g-index

108 all docs

108 docs citations

108 times ranked 7502 citing authors

#	Article	IF	CITATIONS
1	Harvesting can stabilise population fluctuations and buffer the impacts of extreme climatic events. Ecology Letters, 2022, 25, 863-875.	3.0	3
2	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
3	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
4	Body size and digestive system shape resource selection by ungulates: A crossâ€ŧaxa test of the forage maturation hypothesis. Ecology Letters, 2021, 24, 2178-2191.	3.0	19
5	Learning and Animal Movement. Frontiers in Ecology and Evolution, 2021, 9, .	1.1	28
6	Solving the sample size problem for resource selection functions. Methods in Ecology and Evolution, 2021, 12, 2421-2431.	2.2	11
7	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	O
8	Habitat selection patterns are density dependent under the ideal free distribution. Journal of Animal Ecology, 2020, 89, 2777-2787.	1.3	43
9	Transgenerational plasticity mediates temperature effects on fitness in the water flea <i>Daphnia magna</i> . Canadian Journal of Zoology, 2020, 98, 661-665.	0.4	7
10	Anthropogenic Disturbance and Population Viability of Woodland Caribou in Ontario. Journal of Wildlife Management, 2020, 84, 636-650.	0.7	35
11	Temperature triggers a nonâ€linear response in resource–consumer interaction strength. Ecosphere, 2019, 10, e02787.	1.0	10
12	Large birds travel farther in homogeneous environments. Global Ecology and Biogeography, 2019, 28, 576-587.	2.7	39
13	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
14	Moving in the Anthropocene: Global reductions in terrestrial mammalian movements. Science, 2018, 359, 466-469.	6.0	783
15	Biting flies and activity of caribou in the boreal forest. Journal of Wildlife Management, 2018, 82, 833-839.	0.7	15
16	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
17	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
18	Estimating the perâ€eapita contribution of habitats and pathways in a migratory network: a modelling approach. Ecography, 2018, 41, 815-824.	2.1	16

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19	Defining and classifying migratory habitats as sources and sinks: The migratory pathway approach. Journal of Applied Ecology, 2018, 55, 108-117.	1.9	12
20	Predicting and Assessing Progress in the Restoration of Ecosystems. Conservation Letters, 2018, 11, e12390.	2.8	16
21	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
22	Effects of interspecific interaction-linked habitat factors on moose resource selection and environmental stress. Scientific Reports, 2017, 7, 41514.	1.6	9
23	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
24	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
25	<i>Daphnia</i> inhibits the emergence of spatial pattern in a simple consumer–resource system. Ecology, 2017, 98, 1163-1170.	1.5	6
26	Why are we not evaluating multiple competing hypotheses in ecology and evolution?. Royal Society Open Science, 2017, 4, 160756.	1.1	37
27	The dynamical implications of human behaviour on a social-ecological harvesting model. Theoretical Ecology, 2017, 10, 341-354.	0.4	15
28	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
29	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
30	Comparing resource selection and demographic models for predicting animal density. Journal of Wildlife Management, 2017, 81, 16-25.	0.7	11
31	Collective decisionâ€making promotes fitness loss in a fusionâ€fission society. Ecology Letters, 2017, 20, 33-40.	3.0	50
32	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
33	Calcium interacts with temperature to influence <i>Daphnia</i> movement rates. Royal Society Open Science, 2016, 3, 160537.	1.1	13
34	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
35	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
36	Phase separation driven by density-dependent movement: A novel mechanism for ecological patterns. Physics of Life Reviews, 2016, 19, 107-121.	1.5	46

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37	Bridging physics and biology. Physics of Life Reviews, 2016, 19, 142-146.	1.5	2
38	Diel movement patterns influence daily variation in wolf kill rates on moose. Functional Ecology, 2016, 30, 1568-1573.	1.7	32
39	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
40	Selection for forage and avoidance of risk by woodland caribou (<i>Rangifer tarandus caribou</i>) at coarse and local scales. Ecosphere, 2015, 6, 1-11.	1.0	20
41	Factors influencing the seasonal diet selection by woodland caribou (<i>Rangifer tarandus) Tj ETQq1 1 0.784314</i>	rgBT /Ove	rlogk 10 Tf
42	Spaceâ€use behaviour of woodland caribou based on a cognitive movement model. Journal of Animal Ecology, 2015, 84, 1059-1070.	1.3	91
43	Mid-day temperature variation influences seasonal habitat selection by moose. Journal of Wildlife Management, 2015, 79, 505-512.	0.7	53
44	Wolves adapt territory size, not pack size to local habitat quality. Journal of Animal Ecology, 2015, 84, 1177-1186.	1.3	71
45	Habitat selection following recent disturbance: model transferability with implications for management and conservation of moose (<i>Alces alces</i>). Canadian Journal of Zoology, 2015, 93, 813-821.	0.4	27
46	Characterizing demographic parameters across environmental gradients: a case study with Ontario moose (<i>Alces alces</i>). Ecosphere, 2015, 6, 1-13.	1.0	16
47	The predator-prey power law: Biomass scaling across terrestrial and aquatic biomes. Science, 2015, 349, aac6284.	6.0	235
48	Towards an energetic landscape: broadâ€scale accelerometry in woodland caribou. Journal of Animal Ecology, 2014, 83, 916-922.	1.3	30
49	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
50	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
51	Density―and resourceâ€dependent movement characteristics in a rotifer. Functional Ecology, 2013, 27, 323-328.	1.7	24
52	Herbivoreâ€"vegetation feedbacks can expand the range of savanna persistence: insights from a simple theoretical model. Oikos, 2013, 122, 441-453.	1.2	24
53	Do trappers understand marten habitat?. Journal of Wildlife Management, 2013, 77, 379-391.	0.7	11
54	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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55	An empirically parameterized individual based model of animal movement, perception, and memory. Ecological Modelling, 2013, 251, 158-172.	1.2	71
56	Environmental change and the evolution of migration. Ecology, 2013, 94, 1274-1279.	1.5	35
57	Asynchronous food-web pathways could buffer the response of Serengeti predators to El Niño Southern Oscillation. Ecology, 2013, 94, 1123-1130.	1.5	27
58	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
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	Predicted Impact of Barriers to Migration on the Serengeti Wildebeest Population. PLoS ONE, 2011, 6, e16370.	1.1	81
61	Movement and Spread of a Founding Population of Reintroduced Elk (<i>Cervus elaphus</i>) in Ontario, Canada. Restoration Ecology, 2011, 19, 70-77.	1.4	41
62	Linking Rates of Diffusion and Consumption in Relation to Resources. American Naturalist, 2011, 178, 182-190.	1.0	21
63	Resource Management Cycles and the Sustainability of Harvested Wildlife Populations. Science, 2010, 328, 903-906.	6.0	106
64	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
65	Serengeti real estate: density vs. fitnessâ€based indicators of lion habitat quality. Ecology Letters, 2009, 12, 1050-1060.	3.0	117
66	Opposing Rainfall and Plant Nutritional Gradients Best Explain the Wildebeest Migration in the Serengeti. American Naturalist, 2009, 173, 431-445.	1.0	197
67	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
68	The scale-dependent impact of wolf predation risk on resource selection by three sympatric ungulates. Oecologia, 2008, 157, 163-175.	0.9	96
69	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
70	HABITAT-MEDIATED VARIATION IN PREDATION RISK BY THE AMERICAN MARTEN. Ecology, 2008, 89, 2273-2280.	1.5	117
71	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
72	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

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73	Accuracy of forest inventory mapping: Some implications for boreal forest management. Forest Ecology and Management, 2007, 252, 208-221.	1.4	125
74	FLUCTUATIONS OF DEER MICE IN ONTARIO IN RELATION TO SEED CROPS. Ecological Monographs, 2007, 77, 19-32.	2.4	88
75	Group formation stabilizes predator–prey dynamics. Nature, 2007, 449, 1041-1043.	13.7	185
76	Long-Term Ecosystem Dynamics in the Serengeti: Lessons for Conservation. Conservation Biology, 2007, 21, 580-590.	2.4	161
77	Harvest reserves reduce extinction risk in an experimental microcosm. Ecology Letters, 2006, 9, 1025-1031.	3.0	17
78	Genetic isolation by distance and landscape connectivity in the American marten (Martes americana). Landscape Ecology, 2006, 21, 877-889.	1.9	125
79	HUMAN ACTIVITY MEDIATES A TROPHIC CASCADE CAUSED BY WOLVES. Ecology, 2005, 86, 2135-2144.	1.5	359
80	Landscape scale, heterogeneity, and the viability of Serengeti grazers. Ecology Letters, 2005, 8, 328-335.	3.0	172
81	Can parks protect migratory ungulates? The case of the Serengeti wildebeest. Animal Conservation, 2004, 7, 113-120.	1.5	188
82	EXTRACTING MORE OUT OF RELOCATION DATA: BUILDING MOVEMENT MODELS AS MIXTURES OF RANDOM WALKS. Ecology, 2004, 85, 2436-2445.	1.5	607
83	USING KNOWLEDGE OF RECRUITMENT TO MANAGE HARVESTING. Ecology, 2004, 85, 78-85.	1.5	6
84	PREDICTIVE MODELS OF MOVEMENT BY SERENGETI GRAZERS. Ecology, 2004, 85, 2429-2435.	1.5	174
85	THE TEMPORAL SCALE OF FORAGING DECISIONS IN BISON. Ecology, 2002, 83, 970-982.	1.5	107
86	Habitat suitability and source–sink dynamics of beavers. Journal of Animal Ecology, 2001, 70, 310-316.	1.3	23
87	Ungulate foraging strategies: energy maximizing or time minimizing?. Journal of Animal Ecology, 2001, 70, 289-300.	1.3	52
88	Ungulate foraging strategies: energy maximizing or time minimizing?. Journal of Animal Ecology, 2001, 70, 289-300.	1.3	168
89	Harvest dynamics of mustelid carnivores in Ontario, Canada. Wildlife Biology, 2001, 7, 151-159.	0.6	19
90	The allometry of patch selection in ruminants. Proceedings of the Royal Society B: Biological Sciences, 2000, 267, 345-349.	1.2	167

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91	WHAT CONSTRAINS DAILY INTAKE IN THOMSON'S GAZELLES?. Ecology, 1999, 80, 2338-2347.	1.5	39
92	Population cycles can maintain foraging polymorphism. Proceedings of the Royal Society B: Biological Sciences, 1999, 266, 1277-1281.	1.2	1
93	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
94	What Constrains Daily Intake in Thomson's Gazelles?. Ecology, 1999, 80, 2338.	1.5	80
95	DENSITY DEPENDENCE, PREY DEPENDENCE, AND POPULATION DYNAMICS OF MARTENS IN ONTARIO. Ecology, 1999, 80, 1311-1321.	1.5	74
96	LONG-TERM DYNAMICS OF SMALL-MAMMAL POPULATIONS IN ONTARIO. Ecology, 1998, 79, 213-225.	1.5	87
97	Individual Behavior and Community Dynamics. , 1998, , .		109
98	Evolutionary dynamics of habitat use. Evolutionary Ecology, 1997, 11, 687-701.	0.5	17
99	Forage quality and patch choice by wapiti (Cervus elaphus). Behavioral Ecology, 1995, 6, 209-217.	1.0	198
100	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
101	The Effect of Nutritional Quality on Forage Preference by Beavers. Oikos, 1993, 67, 201.	1.2	71
102	Forage Quality and Aggregation by Large Herbivores. American Naturalist, 1991, 138, 478-498.	1.0	378
103	Time Lags and Population Fluctuations in White-Tailed Deer. Journal of Wildlife Management, 1991, 55, 377.	0.7	94
104	Population Dynamics of Newfoundland Moose Using Cohort Analysis. Journal of Wildlife Management, 1988, 52, 14.	0.7	55
105	Why are Migratory Ungulates So Abundant?. American Naturalist, 1988, 131, 781-798.	1.0	332