Ran Nathan

List of Publications by Year
in descending order

138 papers	16,807 citations	30070 54 h-index	16183 124 g-index
150 all docs	150 docs citations	150 times ranked	14400 citing authors

#	Article	IF	Citations
1	A guide to preâ€processing highâ€throughput animal tracking data. Journal of Animal Ecology, 2022, 91, 287-307.	2.8	40
2	Time series enable the characterization of smallâ€scale vegetation dynamics that influence fineâ€scale animal behavior â€" an example from white storks' foraging behavior. Remote Sensing in Ecology and Conservation, 2022, 8, 391-408.	4.3	1
3	Big-data approaches lead to an increased understanding of the ecology of animal movement. Science, 2022, 375, eabg1780.	12.6	173
4	Understanding continent-wide variation in vulture ranging behavior to assess feasibility of Vulture Safe Zones in Africa: Challenges and possibilities. Biological Conservation, 2022, 268, 109516.	4.1	7
5	Biological Earth observation with animal sensors. Trends in Ecology and Evolution, 2022, 37, 293-298.	8.7	49
6	Phase Transition in a Non-Markovian Animal Exploration Model with Preferential Returns. Physical Review Letters, 2022, 128, 148301.	7.8	15
7	Hotspots in the grid: Avian sensitivity and vulnerability to collision risk from energy infrastructure interactions in Europe and North Africa. Journal of Applied Ecology, 2022, 59, 1496-1512.	4.0	20
8	Phylogenomics and evolutionary history of Oreocnide (Urticaceae) shed light on recent geological and climatic events in SE Asia. Molecular Phylogenetics and Evolution, 2022, 175, 107555.	2.7	4
9	Ergodicity Breaking in Area-Restricted Search of Avian Predators. Physical Review X, 2022, 12, .	8.9	19
10	Resource limitation drives fissionâ€"fusion dynamics of group composition and size in a social bird. Animal Behaviour, 2022, 191, 15-32.	1.9	6
11	Absence of strict monogamy in the Eurasian jackdaw, Coloeus monedula. Israel Journal of Ecology and Evolution, 2021, 67, 107-111.	0.6	0
12	Is habitat selection in the wild shaped by individualâ€level cognitive biases in orientation strategy?. Ecology Letters, 2021, 24, 751-760.	6.4	20
13	Estimating nestâ€switching in freeâ€ranging wild birds: an assessment of the most common methodologies, illustrated in the White Stork (Ciconia ciconia). Ibis, 2021, 163, 1110-1119.	1.9	2
14	An evaluation of machine learning classifiers for next-generation, continuous-ethogram smart trackers. Movement Ecology, 2021, 9, 15.	2.8	19
15	Spatial cognitive ability is associated with transitory movement speed but not straightness during the early stages of exploration. Royal Society Open Science, 2021, 8, 201758.	2.4	8
16	In situ threeâ€dimensional video tracking of tagged individuals within siteâ€attached social groups of coralâ€reef fish. Limnology and Oceanography: Methods, 2021, 19, 579-588.	2.0	9
17	A role for lakes in revealing the nature of animal movement using high dimensional telemetry systems. Movement Ecology, 2021, 9, 40.	2.8	13
18	Individual environmental niches in mobile organisms. Nature Communications, 2021, 12, 4572.	12.8	26

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19	Drivers of change and stability in the gut microbiota of an omnivorous avian migrant exposed to artificial food supplementation. Molecular Ecology, 2021, 30, 4723-4739.	3.9	16
20	Congruence between oceanâ€dispersal modelling and phylogeography explains recent evolutionary history of <i>Cycas</i> species with buoyant seeds. New Phytologist, 2021, 232, 1863-1875.	7.3	15
21	Using movement ecology to evaluate the effectiveness of multiple human-wildlife conflict management practices. Biological Conservation, 2021, 262, 109306.	4.1	13
22	Early-life behaviour predicts first-year survival in a long-distance avian migrant. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20202670.	2.6	16
23	High-Throughput Sequencing for Examining Salmonella Prevalence and Pathogenâ€"Microbiota Relationships in Barn Swallows. Frontiers in Ecology and Evolution, 2021, 9, .	2.2	3
24	Memory and Conformity, but Not Competition, Explain Spatial Partitioning Between Two Neighboring Fruit Bat Colonies. Frontiers in Ecology and Evolution, 2021, 9, .	2.2	8
25	The spatial complexity of seed movement: Animalâ€generated seed dispersal patterns in fragmented landscapes revealed by animal movement models. Journal of Ecology, 2020, 108, 687-701.	4.0	27
26	Migration, pathogens and the avian microbiome: A comparative study in sympatric migrants and residents. Molecular Ecology, 2020, 29, 4706-4720.	3.9	25
27	Diurnal timing of nonmigratory movement by birds: the importance of foraging spatial scales. Journal of Avian Biology, 2020, 51, .	1.2	1
28	Seasonal niche tracking of climate emerges at the population level in a migratory bird. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20201799.	2.6	11
29	Movement ecology and sex are linked to barn owl microbial community composition. Molecular Ecology, 2020, 29, 1358-1371.	3.9	33
30	Cognitive mapâ€"based navigation in wild bats revealed by a new high-throughput tracking system. Science, 2020, 369, 188-193.	12.6	98
31	Causes and consequences of facultative sea crossing in a soaring migrant. Functional Ecology, 2020, 34, 840-852.	3.6	20
32	Movementâ€mediated community assembly and coexistence. Biological Reviews, 2020, 95, 1073-1096.	10.4	62
33	Stability Characterization of the Response of White Storksâ€™ Foraging Behavior to Vegetation Dynamics Retrieved from Landsat Time Series. , 2020, , .		0
34	Seasonal differences in energy expenditure, flight characteristics and spatial utilization of Dalmatian Pelicans <i>Pelecanus crispus</i> in Greece. Ibis, 2019, 161, 415-427.	1.9	15
35	Landscapeâ€dependent time versus energy optimizations in pelicans migrating through a large ecological barrier. Functional Ecology, 2019, 33, 2161-2171.	3.6	14
36	Large birds travel farther in homogeneous environments. Global Ecology and Biogeography, 2019, 28, 576-587.	5.8	39

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37	Insights and approaches using deep learning to classify wildlife. Scientific Reports, 2019, 9, 8137.	3.3	60
38	Managing uncertainty in movement knowledge for environmental decisions. Conservation Letters, 2019, 12, e12620.	5.7	6
39	Stochastic simulations reveal few green wave surfing populations among spring migrating herbivorous waterfowl. Nature Communications, 2019, 10, 2187.	12.8	28
40	A comprehensive analysis of autocorrelation and bias in home range estimation. Ecological Monographs, 2019, 89, e01344.	5.4	127
41	Moving in the Anthropocene: Global reductions in terrestrial mammalian movements. Science, 2018, 359, 466-469.	12.6	783
42	The characteristic timeâ€scale of perceived information for decisionâ€making: Departure from thermal columns in soaring birds. Functional Ecology, 2018, 32, 2065-2072.	3.6	14
43	Home Range Size and Resource Use of Breeding and Non-breeding White Storks Along a Land Use Gradient. Frontiers in Ecology and Evolution, 2018, 6, .	2.2	28
44	Early arrival at breeding grounds: Causes, costs and a tradeâ€off with overwintering latitude. Journal of Animal Ecology, 2018, 87, 1627-1638.	2.8	49
45	Sex determination in the wild: a field application of loopâ€mediated isothermal amplification successfully determines sex across three raptor species. Molecular Ecology Resources, 2017, 17, 153-160.	4.8	24
46	Wintering in Europe instead of Africa enhances juvenile survival in a long-distance migrant. Animal Behaviour, 2017, 126, 79-88.	1.9	61
47	Social foraging and individual consistency in following behaviour: testing the information centre hypothesis in free-ranging vultures. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20162654.	2.6	64
48	Pervasive humanâ€mediated largeâ€scale invasion: analysis of spread patterns and their underlying mechanisms in 17 of China's worst invasive plants. Journal of Ecology, 2017, 105, 85-94.	4.0	52
49	Habitat use, but not gene flow, is influenced by human activities in two ecotypes of Egyptian fruit bat (<i>Rousettus aegyptiacus</i>). Molecular Ecology, 2017, 26, 6224-6237.	3.9	17
50	Using accelerometry to compare costs of extended migration in an arctic herbivore. Environmental Epigenetics, 2017, 63, 667-674.	1.8	19
51	Isolation and characterization of novel polymorphic microsatellite markers for the white stork, Ciconia ciconia: applications in individualâ€“based and population genetics. Animal Biodiversity and Conservation, 2016, 39, 11-16.	0.5	3
52	Extra-pair paternity in the socially monogamous white stork (Ciconia ciconia) is fairly common and independent of local density. Scientific Reports, 2016, 6, 27976.	3.3	17
53	Lessons and Experiences from the Design, Implementation, and Deployment of a Wildlife Tracking System. , 2016, , .		22
54	Decision-making by a soaring bird: time, energy and risk considerations at different spatio-temporal scales. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150397.	4.0	63

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55	Adult vultures outperform juveniles in challenging thermal soaring conditions. Scientific Reports, 2016, 6, 27865.	3.3	105
56	Novel Insights into the Map Stage of True Navigation in Nonmigratory Wild Birds (Stone Curlews,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	2.1	5
57	Characterizing the Accuracy of a Self-Synchronized Reverse-GPS Wildlife Localization System. , 2016, , .		40
58	Topic modeling of behavioral modes using sensor data. International Journal of Data Science and Analytics, 2016, 1, 51-60.	4.1	3
59	The challenges of the first migration: movement and behaviour of juvenile vs. adult white storks with insights regarding juvenile mortality. Journal of Animal Ecology, 2016, 85, 938-947.	2.8	144
60	Costs of migratory decisions: A comparison across eight white stork populations. Science Advances, 2016, 2, e1500931.	10.3	151
61	Matrix factorization approach to behavioral mode analysis from acceleration data. , 2015, , .		3
62	Enriching the isotopic toolbox for migratory connectivity analysis: a new approach for migratory species breeding in remote or unexplored areas. Diversity and Distributions, 2015, 21, 416-427.	4.1	30
63	Moving beyond Curve Fitting: Using Complementary Data to Assess Alternative Explanations for Long Movements of Three Vulture Species. American Naturalist, 2015, 185, E44-E54.	2.1	47
64	Individualâ€based modelling of resource competition to predict densityâ€dependent population dynamics: a case study with white storks. Oikos, 2015, 124, 319-330.	2.7	23
65	Guidelines for Using Movement Science to Inform Biodiversity Policy. Environmental Management, 2015, 56, 791-801.	2.7	36
66	How fragmentation and corridors affect wind dynamics and seed dispersal in open habitats. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3484-3489.	7.1	127
67	Lightweight low-cost wildlife tracking tags using integrated transceivers. , 2014, , .		19
68	AcceleRater: a web application for supervised learning of behavioral modes from acceleration measurements. Movement Ecology, 2014, 2, 27.	2.8	126
69	Compensation for lateral drift due to crosswind in migrating European Bee-eaters. Journal of Ornithology, 2014, 155, 745-753.	1.1	11
70	The gliding speed of migrating birds: slow and safe or fast and risky?. Ecology Letters, 2014, 17, 670-679.	6.4	60
71	Mechanistic modeling of seed dispersal by wind over hilly terrain. Ecological Modelling, 2014, 274, 29-40.	2.5	42
72	Fireâ€induced population reduction and landscape opening increases gene flow via pollen dispersal in <i><scp>P</scp>inus halepensis</i>. Molecular Ecology, 2014, 23, 70-81.	3.9	29

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73	Fine-scale spatial genetic dynamics over the life cycle of the tropical tree Prunus africana. Heredity, 2014, 113, 401-407.	2.6	15
74	Agricultural Rodent Control Using Barn Owls: Is It Profitable?. American Journal of Agricultural Economics, 2014, 96, 733-752.	4.3	21
75	A simple modeling approach to elucidate the main transport processes and predict invasive spread: Riverâ€mediated invasion of <scp><i>A</i></scp><i>geratina adenophora</i> in China. Water Resources Research, 2014, 50, 9738-9747.	4.2	11
76	A milestone for movement ecology research. Movement Ecology, 2013, 1, 1.	2.8	75
77	Habitat loss and fragmentation affecting mammal and bird communitiesâ€"The role of interspecific competition and individual space use. Ecological Informatics, 2013, 14, 90-98.	5.2	60
78	Changes of effective gene dispersal distances by pollen and seeds across successive life stages in a tropical tree. Oikos, 2013, 122, 1616-1625.	2.7	10
79	Mixed strategies of griffon vulturesâ€™ (Gyps fulvus) response to food deprivation lead to a hump-shaped movement pattern. Movement Ecology, 2013, 1, 5.	2.8	62
80	Factors Influencing Foraging Search Efficiency: Why Do Scarce Lappet-Faced Vultures Outperform Ubiquitous White-Backed Vultures?. American Naturalist, 2013, 181, E102-E115.	2.1	65
81	Dispersal Biogeography. , 2013, , 539-561.		9
82	CORSICAN PINE INVASION. Bulletin of the Ecological Society of America, 2012, 93, 173-175.	0.2	1
83	Using tri-axial acceleration data to identify behavioral modes of free-ranging animals: general concepts and tools illustrated for griffon vultures. Journal of Experimental Biology, 2012, 215, 986-996.	1.7	359
84	Seed terminal velocity, wind turbulence, and demography drive the spread of an invasive tree in an analytical model. Ecology, 2012, 93, 368-377.	3.2	57
85	Empirical evaluation of directed dispersal and densityâ€dependent effects across successive recruitment phases. Journal of Ecology, 2012, 100, 392-404.	4.0	44
86	Effects of forest plantations on the genetic composition of conspecific native Aleppo pine populations. Molecular Ecology, 2012, 21, 300-313.	3.9	26
87	Movement upscaled â€" the importance of individual foraging movement for community response to habitat loss. Ecography, 2012, 35, 436-445.	4.5	31
88	Longâ€distance gene flow and adaptation of forest trees to rapid climate change. Ecology Letters, 2012, 15, 378-392.	6.4	550
89	Dispersal kernels: review. , 2012, , 186-210.		148
90	Spread of North American wind-dispersed trees in future environments. Ecology Letters, 2011, 14, 211-219.	6.4	160

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91	Genetic evidence for a Janzen-Connell recruitment pattern in reproductive offspring of Pinus halepensis trees. Molecular Ecology, 2011, 20, 4152-4164.	3.9	50
92	An allometric model of home range formation explains the structuring of animal communities exploiting heterogeneous resources. Oikos, 2011, 120, 106-118.	2.7	45
93	Timing and flight mode of departure in migrating European bee-eaters in relation to multi-scale meteorological processes. Behavioral Ecology and Sociobiology, 2011, 65, 1353-1365.	1.4	40
94	Mechanistic models of seed dispersal by wind. Theoretical Ecology, 2011, 4, 113-132.	1.0	157
95	Migration by soaring or flapping: numerical atmospheric simulations reveal that turbulence kinetic energy dictates bee-eater flight mode. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 3380-3386.	2.6	50
96	Large-scale navigational map in a mammal. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E718-24.	7.1	175
97	Incorporating density dependence into the directed-dispersal hypothesis. Ecology, 2010, 91, 1538-1548.	3.2	49
98	Flight Modes in Migrating European Bee-Eaters: Heart Rate May Indicate Low Metabolic Rate during Soaring and Gliding. PLoS ONE, 2010, 5, e13956.	2.5	77
99	Increases in air temperature can promote wind-driven dispersal and spread of plants. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 3081-3087.	2.6	72
100	A movement ecology paradigm for unifying organismal movement research. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19052-19059.	7.1	2,043
101	Linking traits of foraging animals to spatial patterns of plants: social and solitary ants generate opposing patterns of surviving seeds. Ecology Letters, 2008, 11, 224-234.	6.4	27
102	Effects of canopy heterogeneity, seed abscission and inertia on windâ€driven dispersal kernels of tree seeds. Journal of Ecology, 2008, 96, 569-580.	4.0	122
103	Plant fecundity and seed dispersal in spatially heterogeneous environments: models, mechanisms and estimation. Journal of Ecology, 2008, 96, 628-641.	4.0	114
104	Plant dispersal across multiple scales: linking models and reality. Journal of Ecology, 2008, 96, 567-568.	4.0	26
105	Understanding strategies for seed dispersal by wind under contrasting atmospheric conditions. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19084-19089.	7.1	99
106	Mechanisms of long-distance seed dispersal. Trends in Ecology and Evolution, 2008, 23, 638-647.	8.7	705
107	An emerging movement ecology paradigm. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19050-19051.	7.1	232
108	Trends and missing parts in the study of movement ecology. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19060-19065.	7.1	276

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109	How Movement Properties Affect Prey Encounter Rates of Ambush versus Active Predators: A Comment on Scharf et al.. American Naturalist, 2008, 172, 593-595.	2.1	14
110	Movement Strategies of Seed Predators as Determinants of Plant Recruitment Patterns. American Naturalist, 2008, 172, 694-711.	2.1	22
111	Incorporating dispersal distance into the disperser effectiveness framework: frugivorous birds provide complementary dispersal to plants in a patchy environment. Ecology Letters, 2007, 10, 718-728.	6.4	194
112	Over the (range) edge: a 45-year transplant experiment with the perennial forest herbHyacinthoides non-scripta. Journal of Ecology, 2007, 95, 343-351.	4.0	42
113	Long-Distance Dispersal of Plants. Science, 2006, 313, 786-788.	12.6	835
114	Management of plant invasions mediated by frugivore interactions. Journal of Applied Ecology, 2006, 43, 848-857.	4.0	151
115	Effective gene dispersal and female reproductive success in Mediterranean maritime pine (Pinus) Tj ETQq1 1 0.784314 rgBT /Overlock	3.9	80
116	Effects of long-distance dispersal for metapopulation survival and genetic structure at ecological time and spatial scales. Journal of Ecology, 2005, 93, 1029-1040.	4.0	118
117	Long-distance biological transport processes through the air: can nature's complexity be unfolded in silico?. Diversity and Distributions, 2005, 11, 131-137.	4.1	98
118	The importance of long-distance dispersal in biodiversity conservation. Diversity and Distributions, 2005, 11, 173-181.	4.1	428
119	Long-distance dispersal research: building a network of yellow brick roads. Diversity and Distributions, 2005, 11, 125-130.	4.1	100
120	Forecasting Regional to Global Plant Migration in Response to Climate Change. BioScience, 2005, 55, 749.	4.9	279
121	Foliage shedding in deciduous forests lifts up long-distance seed dispersal by wind. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8251-8256.	7.1	116
122	DETERMINANTS OF LONG-DISTANCE SEED DISPERSAL BY WIND IN GRASSLANDS. Ecology, 2004, 85, 3056-3068.	3.2	235
123	A simple mechanistic model of seed dispersal, predation and plant establishment: Janzen-Connell and beyond. Journal of Ecology, 2004, 92, 733-746.	4.0	158
124	Spatiotemporal dynamics of recruitment in Aleppo pine (Pinus halepensis Miller). Plant Ecology, 2004, 171, 123-137.	1.6	80
125	Reproductive traits of Pinus halepensis in the light of fire â€“ a critical review. Plant Ecology, 2004, 171, 69-79.	1.6	161
126	HUMAN EFFECTS ON LONG-DISTANCE WIND DISPERSAL AND COLONIZATION BY GRASSLAND PLANTS. Ecology, 2004, 85, 3069-3079.	3.2	62

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127	Methods for estimating long-distance dispersal. Oikos, 2003, 103, 261-273.	2.7	382
128	The Ecology and Evolution of Seed Dispersal: A Theoretical Perspective. Annual Review of Ecology, Evolution, and Systematics, 2003, 34, 575-604.	8.3	653
129	Long-Distance Dispersal1. Ecology, 2003, 84, 1943-1944.	3.2	32
130	Mechanisms of long-distance dispersal of seeds by wind. Nature, 2002, 418, 409-413.	27.8	565
131	FIELD VALIDATION AND SENSITIVITY ANALYSIS OF A MECHANISTIC MODEL FOR TREE SEED DISPERSAL BY WIND. Ecology, 2001, 82, 374-388.	3.2	194
132	The challenges of studying dispersal. Trends in Ecology and Evolution, 2001, 16, 481-483.	8.7	221
133	Long-distance dispersal of tree seeds by wind. Ecological Research, 2001, 16, 877-885.	1.5	120
134	Field Validation and Sensitivity Analysis of a Mechanistic Model for Tree Seed Dispersal by Wind. Ecology, 2001, 82, 374.	3.2	161
135	Spatial patterns of seed dispersal, their determinants and consequences for recruitment. Trends in Ecology and Evolution, 2000, 15, 278-285.	8.7	1,620
136	SPATIOTEMPORAL VARIATION IN SEED DISPERSAL AND RECRUITMENT NEAR AND FAR FROMPINUS HALEPENSISTREES. Ecology, 2000, 81, 2156-2169.	3.2	141
137	Seed release without fire inPinus halepensis, a Mediterranean serotinous windâ€dispersed tree. Journal of Ecology, 1999, 87, 659-669.	4.0	125
138	Long-Distance Seed Dispersal. , 0, , 204-237.		18