Justin M.J. Travis

List of Publications by Year
in descending order

152 papers	11,993 citations	34076 52 h-index	30894 102 g-index
159 all docs	159 docs citations	159 times ranked	15066 citing authors

#	Article	IF	Citations
1	Costs of dispersal. Biological Reviews, 2012, 87, 290-312.	4.7	996
2	Facilitation in plant communities: the past, the present, and the future. Journal of Ecology, 2008, 96, 18-34.	1.9	788
3	Improving the forecast for biodiversity under climate change. Science, 2016, 353, .	6.0	780
4	Identification of 100 fundamental ecological questions. Journal of Ecology, 2013, 101, 58-67.	1.9	605
5	Climate change and habitat destruction: a deadly anthropogenic cocktail. Proceedings of the Royal Society B: Biological Sciences, 2003, 270, 467-473.	1.2	593
6	Tradeâ€offs and the evolution of lifeâ€histories during range expansion. Ecology Letters, 2010, 13, 1210-1220.	3.0	355
7	Dispersal and speciesâ€™ responses to climate change. Oikos, 2013, 122, 1532-1540.	1.2	318
8	Habitat persistence, habitat availability and the evolution of dispersal. Proceedings of the Royal Society B: Biological Sciences, 1999, 266, 723-728.	1.2	308
9	Microcosm experiments can inform global ecological problems. Trends in Ecology and Evolution, 2007, 22, 516-521.	4.2	273
10	The evolution of densityâ€“dependent dispersal. Proceedings of the Royal Society B: Biological Sciences, 1999, 266, 1837-1842.	1.2	231
11	Modelling speciesâ€™ range shifts in a changing climate: The impacts of biotic interactions, dispersal distance and the rate of climate change. Journal of Theoretical Biology, 2007, 245, 59-65.	0.8	226
12	Reidâ€™s Paradox Revisited: The Evolution of Dispersal Kernels during Range Expansion. American Naturalist, 2008, 172, S34-S48.	1.0	213
13	Deleterious Mutations Can Surf to High Densities on the Wave Front of an Expanding Population. Molecular Biology and Evolution, 2007, 24, 2334-2343.	3.5	196
14	Evolution of dispersal strategies and dispersal syndromes in fragmented landscapes. Ecography, 2017, 40, 56-73.	2.1	185
15	Genetics of dispersal. Biological Reviews, 2018, 93, 574-599.	4.7	182
16	Local adaptation and the evolution of speciesâ€™ ranges under climate change. Journal of Theoretical Biology, 2010, 266, 449-457.	0.8	175
17	Range<scp>S</scp>hifter: a platform for modelling spatial ecoâ€evolutionary dynamics and species' responses to environmental changes. Methods in Ecology and Evolution, 2014, 5, 388-396.	2.2	160
18	Limited evolutionary rescue of locally adapted populations facing climate change. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120083.	1.8	136

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19	Modelling dispersal: an ecoâ€evolutionary framework incorporating emigration, movement, settlement behaviour and the multiple costs involved. Methods in Ecology and Evolution, 2012, 3, 628-641.	2.2	132
20	Accelerating invasion rates result from the evolution of density-dependent dispersal. Journal of Theoretical Biology, 2009, 259, 151-158.	0.8	131
21	The evolution of dispersal in a metapopulation: a spatially explicit, individual-based model. Proceedings of the Royal Society B: Biological Sciences, 1998, 265, 17-23.	1.2	129
22	Predictive systems ecology. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20131452.	1.2	114
23	A meta-analysis on the impact of different matrix structures on species movement rates. Landscape Ecology, 2012, 27, 1263-1278.	1.9	113
24	The evolution of dispersal distance in spatially-structured populations. Oikos, 2002, 97, 229-236.	1.2	111
25	Developing an integrated conceptual framework to understand biodiversity conflicts. Land Use Policy, 2009, 26, 242-253.	2.5	106
26	Ecoâ€evolutionary dynamics in fragmented landscapes. Ecography, 2017, 40, 9-25.	2.1	101
27	Thermal conditions during juvenile development affect adult dispersal in a spider. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17000-17005.	3.3	100
28	Introducing a â€˜stochastic movement simulatorâ€™ for estimating habitat connectivity. Methods in Ecology and Evolution, 2011, 2, 258-268.	2.2	93
29	The interplay of positive and negative species interactions across an environmental gradient: insights from an individual-based simulation model. Biology Letters, 2005, 1, 5-8.	1.0	90
30	The use of an unsupervised learning approach for characterizing latent behaviors in accelerometer data. Ecology and Evolution, 2016, 6, 727-741.	0.8	90
31	Using dynamic vegetation models to simulate plant range shifts. Ecography, 2014, 37, 1184-1197.	2.1	89
32	The distribution of positive and negative species interactions across environmental gradients on a dual-lattice model. Journal of Theoretical Biology, 2006, 241, 896-902.	0.8	87
33	The evolution of an â€˜intelligentâ€™ dispersal strategy: biased, correlated random walks in patchy landscapes. Oikos, 2009, 118, 309-319.	1.2	86
34	Targeting and evaluating biodiversity conservation action within fragmented landscapes: an approach based on generic focal species and least-cost networks. Landscape Ecology, 2010, 25, 1305-1318.	1.9	80
35	Fitting complex ecological point process models with integrated nested Laplace approximation. Methods in Ecology and Evolution, 2013, 4, 305-315.	2.2	72
36	Mutator dynamics in fluctuating environments. Proceedings of the Royal Society B: Biological Sciences, 2002, 269, 591-597.	1.2	71

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37	The Speed of Range Shifts in Fragmented Landscapes. PLoS ONE, 2012, 7, e47141.	1.1	71
38	The Evolution of Programmed Death in a Spatially Structured Population. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2004, 59, B301-B305.	1.7	70
39	A traitâ€based approach for predicting species responses to environmental change from sparse data: how well might terrestrial mammals track climate change?. Global Change Biology, 2016, 22, 2415-2424.	4.2	69
40	Which species will succesfully track climate change? The influence of intraspecific competition and density dependent dispersal on range shifting dynamics. Oikos, 2007, 116, 1531-1539.	1.2	67
41	Uncertainty and the Role of Information Acquisition in the Evolution of Context-Dependent Emigration. American Naturalist, 2012, 179, 606-620.	1.0	67
42	Ecological time lags and the journey towards conservation success. Nature Ecology and Evolution, 2020, 4, 304-311.	3.4	67
43	Community dynamics under environmental change: How can next generation mechanistic models improve projections of species distributions?. Ecological Modelling, 2016, 326, 63-74.	1.2	66
44	The color of noise and the evolution of dispersal. Ecological Research, 2001, 16, 157-163.	0.7	65
45	Between migration load and evolutionary rescue: dispersal, adaptation and the response of spatially structured populations to environmental change. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20132795.	1.2	65
46	Dispersal functions and spatial models: expanding our dispersal toolbox. Ecology Letters, 2000, 3, 163-165.	3.0	63
47	Density-dependent dispersal in host-parasitoid assemblages. Oikos, 2001, 95, 125-135.	1.2	62
48	Towards a mechanistic understanding of dispersal evolution in plants: conservation implications. Diversity and Distributions, 2010, 16, 690-702.	1.9	61
49	Mechanistic modelling of animal dispersal offers new insights into range expansion dynamics across fragmented landscapes. Ecography, 2014, 37, 1240-1253.	2.1	61
50	How range shifts induced by climate change affect neutral evolution. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 1527-1534.	1.2	58
51	Range shifting on a fragmented landscape. Ecological Informatics, 2007, 2, 1-8.	2.3	57
52	Prospecting and dispersal: their eco-evolutionary dynamics and implications for population patterns. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20132851.	1.2	57
53	Interspecific interactions affect species and community responses to climate shifts. Oikos, 2013, 122, 358-366.	1.2	56
54	Defining and delivering resilient ecological networks: Nature conservation in England. Journal of Applied Ecology, 2018, 55, 2537-2543.	1.9	56

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55	A decision framework for considering climate change adaptation in biodiversity conservation planning. Journal of Applied Ecology, 2012, 49, 1247-1255.	1.9	54
56	More rapid climate change promotes evolutionary rescue through selection for increased dispersal distance. Evolutionary Applications, 2013, 6, 353-364.	1.5	52
57	Spatial structure and the control of invasive alien species. Animal Conservation, 2004, 7, 321-330.	1.5	50
58	The impact of habitat loss and fragmentation on genetic drift and fixation time. Oikos, 2006, 114, 367-375.	1.2	50
59	Developing a functional connectivity indicator to detect change in fragmented landscapes. Ecological Indicators, 2010, 10, 552-557.	2.6	50
60	An Open Source Simulation Model for Soil and Sediment Bioturbation. PLoS ONE, 2011, 6, e28028.	1.1	50
61	Effects of local adaptation and interspecific competition on speciesâ€™ responses to climate change. Annals of the New York Academy of Sciences, 2013, 1297, 83-97.	1.8	49
62	A stochastic movement simulator improves estimates of landscape connectivity. Ecology, 2015, 96, 2203-2213.	1.5	49
63	The Frequency of Fitness Peak Shifts Is Increased at Expanding Range Margins Due to Mutation Surfing. Genetics, 2008, 179, 941-950.	1.2	48
64	Using distribution models to test alternative hypotheses about a speciesâ€™ environmental limits and recovery prospects. Biological Conservation, 2009, 142, 488-499.	1.9	48
65	Site fidelity, survival and conservation options for the threatened flapper skate <i>(Dipturus cf.) Tj ETQq1 1 0.784314 rgBT /Overlock 1(	0.9	48
66	The dynamics of climateâ€induced range shifting; perspectives from simulation modelling. Oikos, 2009, 118, 131-137.	1.2	47
67	Modelling establishment probabilities of an exotic plant, Rhododendron ponticum, invading a heterogeneous, woodland landscape using logistic regression with spatial autocorrelation. Ecological Modelling, 2006, 193, 747-758.	1.2	46
68	Evolving dispersal and age at death. Oikos, 2006, 113, 530-538.	1.2	45
69	Improving prediction and management of range expansions by combining analytical and individualâ€based modelling approaches. Methods in Ecology and Evolution, 2011, 2, 477-488.	2.2	45
70	Mutation surfing and the evolution of dispersal during range expansions. Journal of Evolutionary Biology, 2010, 23, 2656-2667.	0.8	42
71	Risky movement increases the rate of range expansion. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 1194-1202.	1.2	42
72	Range expansion of an invasive species through a heterogeneous landscape â€“ the case of American mink in Scotland. Diversity and Distributions, 2015, 21, 888-900.	1.9	40

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73	The importance of realistic dispersal models in conservation planning: application of a novel modelling platform to evaluate management scenarios in an Afrotropical biodiversity hotspot. Journal of Applied Ecology, 2016, 53, 1055-1065.	1.9	40
74	Landscape structure and boundary effects determine the fate of mutations occurring during range expansions. Heredity, 2008, 101, 329-340.	1.2	39
75	Population and evolutionary dynamics in spatially structured seasonally varying environments. Biological Reviews, 2018, 93, 1578-1603.	4.7	39
76	Behavioural synchronization of largeâ€scale animal movementsÂâ€“Âdisperse alone, butÂmigrate together?. Biological Reviews, 2017, 92, 1275-1296.	4.7	38
77	A call for viewshed ecology: Advancing our understanding of the ecology of information through viewshed analysis. Methods in Ecology and Evolution, 2018, 9, 624-633.	2.2	38
78	A method for simulating patterns of habitat availability at static and dynamic range margins. Oikos, 2004, 104, 410-416.	1.2	37
79	Testing mechanistic models of seed dispersal for the invasive Rhododendron ponticum (L.). Perspectives in Plant Ecology, Evolution and Systematics, 2007, 9, 15-28.	1.1	36
80	Taking movement data to new depths: Inferring prey availability and patch profitability from seabird foraging behavior. Ecology and Evolution, 2017, 7, 10252-10265.	0.8	36
81	Spatial processes can determine the relationship between prey encounter rate and prey density. Biology Letters, 2005, 1, 136-138.	1.0	35
82	Projecting speciesâ€™ range expansion dynamics: sources of systematic biases when scaling up patterns and processes. Methods in Ecology and Evolution, 2012, 3, 1008-1018.	2.2	34
83	When do young birds disperse? Tests from studies of golden eagles in Scotland. BMC Ecology, 2013, 13, 42.	3.0	34
84	RangeShifter 2.0: an extended and enhanced platform for modelling spatial ecoâ€evolutionary dynamics and species' responses to environmental changes. Ecography, 2021, 44, 1453-1462.	2.1	34
85	Flexibility and the use of indicator taxa in the selection of sites for nature reserves. Biodiversity and Conservation, 2001, 10, 271-285.	1.2	31
86	Eco-evolutionary dynamics of range shifts: Elastic margins and critical thresholds. Journal of Theoretical Biology, 2013, 321, 1-7.	0.8	31
87	Filling evidence gaps with expert opinion: The use of Delphi analysis in least-cost modelling of functional connectivity. Landscape and Urban Planning, 2011, 103, 400-409.	3.4	29
88	Simple individualâ€based models effectively represent <scp>A</scp>frotropical forest bird movement in complex landscapes. Journal of Applied Ecology, 2014, 51, 693-702.	1.9	29
89	Emerging Opportunities for Landscape Ecological Modelling. Current Landscape Ecology Reports, 2016, 1, 146-167.	1.1	29
90	Incorporating fineâ€scale environmental heterogeneity into broadâ€extent models. Methods in Ecology and Evolution, 2019, 10, 767-778.	2.2	29

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91	Invasive species control: Incorporating demographic data and seed dispersal into a management model for Rhododendron ponticum. Ecological Informatics, 2009, 4, 226-233.	2.3	28
92	Landscape structure and genetic architecture jointly impact rates of niche evolution. Ecography, 2014, 37, 1218-1229.	2.1	28
93	The Evolution of Male-Biased Dispersal under the Joint Selective Forces of Inbreeding Load and Demographic and Environmental Stochasticity. American Naturalist, 2016, 188, 423-433.	1.0	28
94	Improving reintroduction success in large carnivores through individual-based modelling: How to reintroduce Eurasian lynx (Lynx lynx) to Scotland. Biological Conservation, 2019, 234, 140-153.	1.9	28
95	Spatially explicit models for decisionâ€making in animal conservation and restoration. Ecography, 2022, 2022, .	2.1	28
96	Are existing biodiversity conservation strategies appropriate in a changing climate?. Biological Conservation, 2016, 193, 17-26.	1.9	27
97	Linking the coevolutionary and population dynamics of hostâ€"parasitoid interactions. Population Ecology, 2000, 42, 195-203.	0.7	24
98	Red noise increases extinction risk during rapid climate change. Diversity and Distributions, 2013, 19, 815-824.	1.9	24
99	Interâ€individual variability in dispersal behaviours impacts connectivity estimates. Oikos, 2014, 123, 923-932.	1.2	24
100	Integrating an individual-based model with approximate Bayesian computation to predict the invasion of a freshwater fish provides insights into dispersal and range expansion dynamics. Biological Invasions, 2020, 22, 1461-1480.	1.2	24
101	Hugging the hedges: Might agri-environment manipulations affect landscape permeability for hedgehogs?. Biological Conservation, 2014, 176, 109-116.	1.9	23
102	Modelling potential success of conservation translocations of a specialist grassland butterfly. Biological Conservation, 2015, 192, 200-206.	1.9	23
103	Coding for Life: Designing a Platform for Projecting and Protecting Global Biodiversity. BioScience, 2022, 72, 91-104.	2.2	23
104	A preliminary assessment of the contribution of nature reserves to biodiversity conservation in Great Britain. Animal Conservation, 2000, 3, 311-320.	1.5	22
105	Incorporating evolutionary processes into a spatially-explicit model: exploring the consequences of mink-farm closures in Denmark. Ecography, 2006, 29, 465-476.	2.1	22
106	Integrating demographic data and a mechanistic dispersal model to predict invasion spread of Rhododendron ponticum in different habitats. Ecological Informatics, 2011, 6, 187-195.	2.3	22
107	A multi-species modelling approach to examine the impact of alternative climate change adaptation strategies on range shifting ability in a fragmented landscape. Ecological Informatics, 2015, 30, 222-229.	2.3	21
108	Mutation accumulation and the formation of range limits. Biology Letters, 2015, 11, 20140871.	1.0	21

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109	Coupled land use and ecological models reveal emergence and feedbacks in socioâ€ecological systems. Ecography, 2019, 42, 814-825.	2.1	21
110	Using individual tracking data to validate the predictions of species distribution models. Diversity and Distributions, 2016, 22, 682-693.	1.9	18
111	Changes in species' distributions during and after environmental change: which ecoâ€evolutionary processes matter more?. Ecography, 2014, 37, 1210-1217.	2.1	17
112	Tree loss impacts on ecological connectivity: Developing models for assessment. Ecological Informatics, 2017, 42, 90-99.	2.3	17
113	The effect of host movement on viral transmission dynamics in a vector-borne disease system. Parasitology, 2009, 136, 1221-1234.	0.7	16
114	Early Engagement of Stakeholders with Individual-Based Modeling Can Inform Research for Improving Invasive Species Management: The Round Goby as a Case Study. Frontiers in Ecology and Evolution, 2017, 5, .	1.1	16
115	Spread rates on fragmented landscapes: the interacting roles of demography, dispersal and habitat availability. Diversity and Distributions, 2016, 22, 1266-1275.	1.9	15
116	ALADYN â€“ a spatially explicit, allelic model for simulating adaptive dynamics. Ecography, 2014, 37, 1288-1291.	2.1	14
117	Neighbourhood size, dispersal distance and the complex dynamics of the spatial Ricker model. Population Ecology, 2003, 45, 227-237.	0.7	13
118	Evolution of Predator Dispersal in Relation to Spatio-Temporal Prey Dynamics: How Not to Get Stuck in the Wrong Place!. PLoS ONE, 2013, 8, e54453.	1.1	13
119	Maladapted Prey Subsidize Predators and Facilitate Range Expansion. American Naturalist, 2019, 194, 590-612.	1.0	13
120	Ideal free distribution of fixed dispersal phenotypes in a wing dimorphic beetle in heterogeneous landscapes. Ecology, 2013, 94, 2487-2497.	1.5	12
121	Towards an interactive, processâ€based approach to understanding range shifts: developmental and environmental dependencies matter. Ecography, 2019, 42, 201-210.	2.1	12
122	Predicting current and future global distribution of invasive <i>Ligustrum lucidum</i> W.T. Aiton: Assessing emerging risks to biodiversity hotspots. Diversity and Distributions, 2021, 27, 1568-1583.	1.9	12
123	RangeShiftR: an R package for individualâ€based simulation of spatial ecoâ€evolutionary dynamics and species' responses to environmental changes. Ecography, 2021, 44, 1443-1452.	2.1	12
124	Evaluating the Influence of Epidemiological Parameters and Host Ecology on the Spread of Phocine Distemper Virus through Populations of Harbour Seals. PLoS ONE, 2008, 3, e2710.	1.1	12
125	The role of the urban landscape on species with contrasting dispersal ability: Insights from greening plans for Barcelona. Landscape and Urban Planning, 2020, 195, 103707.	3.4	11
126	Dispersal asymmetries and deleterious mutations influence metapopulation persistence and range dynamics. Evolutionary Ecology, 2015, 29, 833-850.	0.5	10

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127	The contribution of flight capability to the postâ€fledging dependence period of golden eagles. Journal of Avian Biology, 2018, 49, .	0.6	10
128	CONTAIN: Optimising the long-term management of invasive alien species using adaptive management. NeoBiota, 0, 59, 119-138.	1.0	10
129	Negative densityâ€dependent dispersal emerges from the joint evolution of densityâ€•and body conditionâ€dependent dispersal strategies. Evolution; International Journal of Organic Evolution, 2020, 74, 2238-2249.	1.1	9
130	Orangutan movement and population dynamics across human-modified landscapes: implications of policy and management. Landscape Ecology, 2021, 36, 2957-2975.	1.9	9
131	Impacts of Land Cover Data Selection and Trait Parameterisation on Dynamic Modelling of Speciesâ€™ Range Expansion. PLoS ONE, 2014, 9, e108436.	1.1	9
132	Inter-annual variability influences the eco-evolutionary dynamics of range-shifting. PeerJ, 2014, 1, e228.	0.9	9
133	Mutators in Space: The Dynamics of High-Mutability Clones in a Two-Patch Model. Genetics, 2004, 167, 513-522.	1.2	8
134	Disappearing refuges in time and space: how environmental change threatens species coexistence. Theoretical Ecology, 2009, 2, 217-227.	0.4	7
135	Models of Dispersal Evolution Highlight Several Important Issues in Evolutionary and Ecological Modeling. American Naturalist, 2016, 187, 143-150.	1.0	7
136	Predicting the influence of river network configuration, biological traits and habitat quality interactions on riverine fish invasions. Diversity and Distributions, 2022, 28, 257-270.	1.9	7
137	Predicting the outcomes of management strategies for controlling invasive river fishes using individualâ€based models. Journal of Applied Ecology, 2021, 58, 2427-2440.	1.9	6
138	Fauxcurrence: simulating multiâ€species occurrences for null models in species distribution modelling and biogeography. Ecography, 2022, 2022, .	2.1	6
139	Habitat geometry, population viscosity and the rate of genetic drift. Ecological Informatics, 2006, 1, 153-161.	2.3	5
140	Which species will succesfully track climate change? The influence of intraspecific competition and density dependent dispersal on range shifting dynamics. Oikos, 2007, 116, 1531-1539.	1.2	5
141	Modelling Hen Harrier Dynamics to Inform Human-Wildlife Conflict Resolution: A Spatially-Realistic, Individual-Based Approach. PLoS ONE, 2014, 9, e112492.	1.1	5
142	Striking the right balance between site and landscape-scale conservation actions for a woodland insect within a highly fragmented landscape: A landscape genetics perspective. Biological Conservation, 2016, 195, 146-155.	1.9	5
143	Dispersal evolution in currents: spatial sorting promotes philopatry in upstream patches. Ecography, 2021, 44, 231-241.	2.1	5
144	Prospecting and informed dispersal: Understanding and predicting their joint ecoâ€evolutionary dynamics. Ecology and Evolution, 2021, 11, 15289-15302.	0.8	5

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145	Modelling foraging movements of diving predators: a theoretical study exploring the effect of heterogeneous landscapes on foraging efficiency. PeerJ, 2014, 2, e544.	0.9	4
146	Critical Scales for Long-Term Socio-ecological Biodiversity Research. , 2013, , 123-138.		4
147	Predicting spatially heterogeneous invasive spread: Pyracantha angustifolia invading a dry Andean valley in northern Argentina. Biological Invasions, 2022, 24, 2201-2216.	1.2	4
148	Using fluid dynamic concepts to estimate species movement rates in terrestrial landscapes. Ecological Indicators, 2018, 93, 344-350.	2.6	3
149	Modelling conservation conflicts. , 2015, , 195-211.		2
150	A preliminary assessment of the contribution of nature reserves to biodiversity conservation in Great Britain. Animal Conservation, 2000, 3, 311-320.	1.5	2
151	Informed dispersal based on prospecting impacts the rate and shape of range expansions. Ecography, 2022, 2022, .	2.1	2
152	Ancient geological dynamics impact neutral biodiversity accumulation and are detectable in phylogenetic reconstructions. Global Ecology and Biogeography, 2021, 30, 1633-1642.	2.7	1