Michael R Kearney

List of Publications by Year
in descending order

98 papers	9,259 citations	76294 40 h-index	42364 92 g-index
98 all docs	98 docs citations	98 times ranked	10880 citing authors

#	Article	IF	Citations
1	Predicting species distributions for conservation decisions. Ecology Letters, 2013, 16, 1424-1435.	3.0	1,375
2	Predicting organismal vulnerability to climate warming: roles of behaviour, physiology and adaptation. Philosophical Transactions of the Royal Society B: Biological Sciences, 2012, 367, 1665-1679.	1.8	1,049
3	Thermal-safety margins and the necessity of thermoregulatory behavior across latitude and elevation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5610-5615.	3.3	906
4	Declining body size: a third universal response to warming?. Trends in Ecology and Evolution, 2011, 26, 285-291.	4.2	845
5	Correlative and mechanistic models of species distribution provide congruent forecasts under climate change. Conservation Letters, 2010, 3, 203-213.	2.8	376
6	Realized niche shift during a global biological invasion. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10233-10238.	3.3	238
7	NicheMapR â€“ an R package for biophysical modelling: the microclimate model. Ecography, 2017, 40, 664-674.	2.1	192
8	Sensitivity to thermal extremes in Australian<i>Drosophila</i>implies similar impacts of climate change on the distribution of widespread and tropical species. Global Change Biology, 2014, 20, 1738-1750.	4.2	181
9	Determinants of inter-specific variation in basal metabolic rate. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2013, 183, 1-26.	0.7	172
10	Predicting the fate of a living fossil: how will global warming affect sex determination and hatching phenology in tuatara?. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 2185-2193.	1.2	171
11	The â€œcovariation methodâ€• for estimating the parameters of the standard Dynamic Energy Budget model I: Philosophy and approach. Journal of Sea Research, 2011, 66, 270-277.	0.6	160
12	microclim: Global estimates of hourly microclimate based on long-term monthly climate averages. Scientific Data, 2014, 1, 140006.	2.4	160
13	Metabolic Scaling in Animals: Methods, Empirical Results, and Theoretical Explanations. , 2014, 4, 231-256.		147
14	Advances in Monitoring and Modelling Climate at Ecologically Relevant Scales. Advances in Ecological Research, 2018, , 101-161.	1.4	146
15	Forecasting species range dynamics with processâ€explicit models: matching methods to applications. Ecology Letters, 2019, 22, 1940-1956.	3.0	144
16	Activity restriction and the mechanistic basis for extinctions under climate warming. Ecology Letters, 2013, 16, 1470-1479.	3.0	127
17	Balancing heat, water and nutrients under environmental change: a thermodynamic niche framework. Functional Ecology, 2013, 27, 950-966.	1.7	110
18	Microclimate modelling at macro scales: a test of a general microclimate model integrated with gridded continentalâ€scale soil and weather data. Methods in Ecology and Evolution, 2014, 5, 273-286.	2.2	107

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19	Biomechanics meets the ecological niche: the importance of temporal data resolution. Journal of Experimental Biology, 2012, 215, 922-933.	0.8	102
20	Tree-hugging koalas demonstrate a novel thermoregulatory mechanism for arboreal mammals. Biology Letters, 2014, 10, 20140235.	1.0	99
21	Unpacking the mechanisms captured by a correlative species distribution model to improve predictions of climate refugia. Global Change Biology, 2016, 22, 2425-2439.	4.2	91
22	A method for computing hourly, historical, terrainâ€corrected microclimate anywhere on earth. Methods in Ecology and Evolution, 2020, 11, 38-43.	2.2	88
23	NicheMapR â€" an R package for biophysical modelling: the ectotherm and Dynamic Energy Budget models. Ecography, 2020, 43, 85-96.	2.1	87
24	The origin and maintenance of metabolic allometry in animals. Nature Ecology and Evolution, 2019, 3, 598-603.	3.4	86
25	Reconciling theories for metabolic scaling. Journal of Animal Ecology, 2014, 83, 20-29.	1.3	81
26	Excluding access to invasion hubs can contain the spread of an invasive vertebrate. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2900-2908.	1.2	80
27	The â€œcovariation methodâ€•for estimating the parameters of the standard Dynamic Energy Budget model II: Properties and preliminary patterns. Journal of Sea Research, 2011, 66, 278-288.	0.6	76
28	Testing Metabolic Theories. American Naturalist, 2012, 180, 546-565.	1.0	74
29	Field tests of a general ectotherm niche model show how water can limit lizard activity and distribution. Ecological Monographs, 2018, 88, 672-693.	2.4	74
30	Early emergence in a butterfly causally linked to anthropogenic warming. Biology Letters, 2010, 6, 674-677.	1.0	68
31	A physiological analogy of the niche for projecting the potential distribution of plants. Journal of Biogeography, 2012, 39, 2132-2145.	1.4	68
32	A Manipulative Test of Competing Theories for Metabolic Scaling. American Naturalist, 2011, 178, 746-754.	1.0	65
33	Color Change for Thermoregulation versus Camouflage in Free-Ranging Lizards. American Naturalist, 2016, 188, 668-678.	1.0	65
34	Linking Eco-Energetics and Eco-Hydrology to Select Sites for the Assisted Colonization of Australiaâ€™s Rarest Reptile. Biology, 2013, 2, 1-25.	1.3	61
35	Colour change on different body regions provides thermal and signalling advantages in bearded dragon lizards. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20160626.	1.2	57
36	Integrating mechanistic and correlative niche models to unravel rangeâ€limiting processes in a temperate amphibian. Global Change Biology, 2019, 25, 2633-2647.	4.2	52

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37	A dynamic energy budget for the whole lifeâ€cycle of holometabolous insects. Ecological Monographs, 2015, 85, 353-371.	2.4	50
38	Mechanistic models for predicting insect responses to climate change. Current Opinion in Insect Science, 2016, 17, 81-86.	2.2	50
39	Reflection of near-infrared light confers thermal protection in birds. Nature Communications, 2018, 9, 3610.	5.8	47
40	Climateâ€related spatial and temporal variation in bill morphology over the past century in Australian parrots. Journal of Biogeography, 2015, 42, 1163-1175.	1.4	45
41	Predicting climate warming effects on green turtle hatchling viability and dispersal performance. Functional Ecology, 2015, 29, 768-778.	1.7	44
42	Three questions about the ecoâ€physiology of overwintering underground. Ecology Letters, 2021, 24, 170-185.	3.0	42
43	Morphology and burrowing energetics of semi-fossorial skinks (<i>Liopholis</i>). Journal of Experimental Biology, 2015, 218, 2416-26.	0.8	40
44	An individualâ€based model of ectotherm movement integrating metabolic and microclimatic constraints. Methods in Ecology and Evolution, 2018, 9, 472-489.	2.2	40
45	Persistence through tough times: fixed and shifting refuges in threatened species conservation. Biodiversity and Conservation, 2019, 28, 1303-1330.	1.2	40
46	Thermal Sensitivity of Aedes aegypti From Australia: Empirical Data and Prediction of Effects on Distribution. Journal of Medical Entomology, 2011, 48, 914-923.	0.9	39
47	Where do functional traits come from? The role of theory and models. Functional Ecology, 2021, 35, 1385-1396.	1.7	38
48	Ontogenetic and Interspecific Metabolic Scaling in Insects. American Naturalist, 2014, 184, 695-701.	1.0	36
49	Modeling behavioral thermoregulation in a climate change sentinel. Ecology and Evolution, 2015, 5, 5810-5822.	0.8	34
50	Bergmann meets Scholander: geographical variation in body size and insulation in the koala is related to climate. Journal of Biogeography, 2015, 42, 791-802.	1.4	33
51	Reptile embryos and climate change: Modelling limits of viability to inform translocation decisions. Biological Conservation, 2016, 204, 134-147.	1.9	33
52	The trade-off between maturation and growth during accelerated development in frogs. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2012, 163, 95-102.	0.8	32
53	Stageâ€dependent physiological responses in a butterfly cause nonâ€additive effects on phenology. Oikos, 2012, 121, 1464-1472.	1.2	30
54	The roles of acclimation and behaviour in buffering climate change impacts along elevational gradients. Journal of Animal Ecology, 2020, 89, 1722-1734.	1.3	30

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55	Testing mechanistic models of growth in insects. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20151973.	1.2	29
56	Can next-generation soil data products improve soil moisture modelling at the continental scale? An assessment using a new microclimate package for the R programming environment. Journal of Hydrology, 2018, 561, 662-673.	2.3	28
57	Ontogenetic and interspecific scaling of consumption in insects. Oikos, 2015, 124, 1564-1570.	1.2	26
58	What is the status of metabolic theory one century after <scp>P</scp>Ã¼tter invented the von <scp>B</scp>ertalanffy growth curve?. Biological Reviews, 2021, 96, 557-575.	4.7	26
59	An estimate of the water budget for the endangered night parrot of Australia under recent and future climates. Climate Change Responses, 2016, 3, .	2.6	25
60	Climate is a strong predictor of near-infrared reflectance but a poor predictor of colour in butterflies. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20190234.	1.2	25
61	Microclimate modelling of beach sand temperatures reveals high spatial and temporal variation at sea turtle rookeries. Journal of Thermal Biology, 2020, 88, 102522.	1.1	22
62	Linking thermal adaptation and life-history theory explains latitudinal patterns of voltinism. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180547.	1.8	20
63	Dynamic Energy Budget Theory: An Efficient and General Theory for Ecology. BioScience, 2015, 65, 341-341.	2.2	18
64	Has contemporary climate change played a role in population declines of the lizard Ctenophorus decresii from semi-arid Australia?. Journal of Thermal Biology, 2015, 54, 66-77.	1.1	18
65	An endangered flightless grasshopper with strong genetic structure maintains population genetic variation despite extensive habitat loss. Ecology and Evolution, 2021, 11, 5364-5380.	0.8	18
66	Models of primary sex ratios at a major flatback turtle rookery show an anomalous masculinising trend. Climate Change Responses, 2014, 1, .	2.6	15
67	Future winters present a complex energetic landscape of decreased costs and reduced risk for a freezeâ€tolerant amphibian, the Wood Frog (<i>Lithobates sylvaticus</i>). Global Change Biology, 2020, 26, 6350-6362.	4.2	15
68	How will snow alter exposure of organisms to cold stress under climate warming?. Global Ecology and Biogeography, 2020, 29, 1246-1256.	2.7	15
69	Novel applications of thermocyclers for phenotyping invertebrate thermal responses. Methods in Ecology and Evolution, 2016, 7, 1201-1208.	2.2	14
70	One lump or two? Explaining a major latitudinal transition in reproductive allocation in a viviparous lizard. Functional Ecology, 2016, 30, 1373-1383.	1.7	14
71	Life in the slow lane? A dynamic energy budget model for the western swamp turtle, Pseudemydura umbrina. Journal of Sea Research, 2019, 143, 89-99.	0.6	14
72	Modeling the distribution of niche space and risk for a freezeâ€tolerant ectotherm, <i>Lithobates sylvaticus</i>. Ecosphere, 2019, 10, e02788.	1.0	14

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73	Integrating dynamic plant growth models and microclimates for species distribution modelling. Ecological Modelling, 2020, 435, 109262.	1.2	14
74	A general model of the thermal constraints on the worldâ€™s most destructive locust,<i>Schistocerca gregaria</i>. Ecological Applications, 2021, 31, e02310.	1.8	14
75	Modelling the joint effects of body size and microclimate on heat budgets and foraging opportunities of ectotherms. Methods in Ecology and Evolution, 2021, 12, 458-467.	2.2	13
76	NicheMapR â€" an R package for biophysical modelling: the endotherm model. Ecography, 2021, 44, 1595-1605.	2.1	13
77	Summer egg diapause in a matchstick grasshopper synchronizes the life cycle and buffers thermal extremes. Integrative Zoology, 2018, 13, 437-449.	1.3	12
78	A hierarchical approach to understanding physiological associations with climate. Global Ecology and Biogeography, 2022, 31, 332-346.	2.7	12
79	<scp>mcera5</scp>: Driving microclimate models with ERA5 global gridded climate data. Methods in Ecology and Evolution, 2022, 13, 1402-1411.	2.2	12
80	The effect of egg size on hatch time and metabolic rate: theoretical and empirical insights on developing insect embryos. Functional Ecology, 2017, 31, 227-234.	1.7	11
81	Climate and Fire Scenario Uncertainty Dominate the Evaluation of Options for Conserving the Great Desert Skink. Conservation Letters, 2016, 9, 181-190.	2.8	10
82	Dynamics of death by heat. Science, 2020, 369, 1163-1163.	6.0	10
83	Tracheal branching in ants is area-decreasing, violating a central assumption of network transport models. PLoS Computational Biology, 2020, 16, e1007853.	1.5	10
84	Parthenogenesis without costs in a grasshopper with hybrid origins. Science, 2022, 376, 1110-1114.	6.0	10
85	Using Biophysical Models to Improve Survey Efficiency for Cryptic Ectotherms. Journal of Wildlife Management, 2020, 84, 1185-1195.	0.7	9
86	A replicated comparison of breedingâ€container suitability for the dengue vector <i>Aedes aegypti</i> in tropical and temperate Australia. Austral Ecology, 2013, 38, 219-229.	0.7	8
87	Grasshopper country before and after: a resurvey of Ken Key's collecting expeditions in New South Wales, Australia, 70Âyears on. Austral Entomology, 2021, 60, 52-65.	0.8	8
88	The Fundamental Niche Concept Connects Individuals to Populations: A Comment on Angilletta et al.. Integrative and Comparative Biology, 2019, 59, 1509-1510.	0.9	7
89	microclim<scp>US</scp>: hourly estimates of historical microclimates for the United States of America with example applications. Ecology, 2019, 100, e02829.	1.5	7
90	MicroclimOz â€" A microclimate data set for Australia, with example applications. Austral Ecology, 2019, 44, 534-544.	0.7	7

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91	Too hot for the devil? Did climate change cause the midâ€Holocene extinction of the Tasmanian devil <i>Sarcophilus harrisii</i> from mainland Australia?. Ecography, 2022, 2022, .	2.1	7
92	Too hot to handle? Balancing increased trapability with capture mortality in hot weather pitfall trapping. Austral Ecology, 2016, 41, 918-926.	0.7	5
93	Too much hot air? Informing ethical trapping in hot, dry environments. Wildlife Research, 2018, 45, 16.	0.7	5
94	Too hot to hunt: Mechanistic predictions of thermal refuge from cat predation risk. Conservation Letters, 2022, 15, .	2.8	5
95	Geostatistical interpolation can reliably extend coverage of a very highâ€resolution model of temperatureâ€dependent sex determination. Journal of Biogeography, 2018, 45, 652-663.	1.4	4
96	The matchstick grasshopper genus Warramaba (Morabidae: Morabinae): a description of four new species and a photographic guide to the group. Zootaxa, 2018, 4482, 201-244.	0.2	3
97	Mechanisms and consequences of changing body size: reply to Bickford et al. and McCauley and Mabry. Trends in Ecology and Evolution, 2011, 26, 555-556.	4.2	2
98	The universality of the von Bertalanffy growth curve. Physics of Life Reviews, 2017, 20, 63-65.	1.5	2