

# Michael R Kearney

## List of Publications by Year in descending order

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Version: 2024-02-01

98  
papers

9,259  
citations

76326

40  
h-index

42399

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. <i>Ecology Letters</i> , 2013, 16, 1424-1435.	6.4	1,375
2	Predicting organismal vulnerability to climate warming: roles of behaviour, physiology and adaptation. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2012, 367, 1665-1679.	4.0	1,049
3	Thermal-safety margins and the necessity of thermoregulatory behavior across latitude and elevation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 5610-5615.	7.1	906
4	Declining body size: a third universal response to warming?. <i>Trends in Ecology and Evolution</i> , 2011, 26, 285-291.	8.7	845
5	Correlative and mechanistic models of species distribution provide congruent forecasts under climate change. <i>Conservation Letters</i> , 2010, 3, 203-213.	5.7	376
6	Realized niche shift during a global biological invasion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 10233-10238.	7.1	238
7	NicheMapR – an R package for biophysical modelling: the microclimate model. <i>Ecography</i> , 2017, 40, 664-674.	4.5	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. <i>Global Change Biology</i> , 2014, 20, 1738-1750.	9.5	181
9	Determinants of inter-specific variation in basal metabolic rate. <i>Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology</i> , 2013, 183, 1-26.	1.5	172
10	Predicting the fate of a living fossil: how will global warming affect sex determination and hatching phenology in tuatara?. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2008, 275, 2185-2193.	2.6	171
11	The ‘‘covariation method’’ for estimating the parameters of the standard Dynamic Energy Budget model I: Philosophy and approach. <i>Journal of Sea Research</i> , 2011, 66, 270-277.	1.6	160
12	microclim: Global estimates of hourly microclimate based on long-term monthly climate averages. <i>Scientific Data</i> , 2014, 1, 140006.	5.3	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. <i>Advances in Ecological Research</i> , 2018, , 101-161.	2.7	146
15	Forecasting species range dynamics with process-explicit models: matching methods to applications. <i>Ecology Letters</i> , 2019, 22, 1940-1956.	6.4	144
16	Activity restriction and the mechanistic basis for extinctions under climate warming. <i>Ecology Letters</i> , 2013, 16, 1470-1479.	6.4	127
17	Balancing heat, water and nutrients under environmental change: a thermodynamic niche framework. <i>Functional Ecology</i> , 2013, 27, 950-966.	3.6	110
18	Microclimate modelling at macro scales: a test of a general microclimate model integrated with gridded continental-scale soil and weather data. <i>Methods in Ecology and Evolution</i> , 2014, 5, 273-286.	5.2	107

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19	Biomechanics meets the ecological niche: the importance of temporal data resolution. <i>Journal of Experimental Biology</i> , 2012, 215, 922-933.	1.7	102
20	Tree-hugging koalas demonstrate a novel thermoregulatory mechanism for arboreal mammals. <i>Biology Letters</i> , 2014, 10, 20140235.	2.3	99
21	Unpacking the mechanisms captured by a correlative species distribution model to improve predictions of climate refugia. <i>Global Change Biology</i> , 2016, 22, 2425-2439.	9.5	91
22	A method for computing hourly, historical, terrain-corrected microclimate anywhere on earth. <i>Methods in Ecology and Evolution</i> , 2020, 11, 38-43.	5.2	88
23	NicheMapR – an R package for biophysical modelling: the ectotherm and Dynamic Energy Budget models. <i>Ecography</i> , 2020, 43, 85-96.	4.5	87
24	The origin and maintenance of metabolic allometry in animals. <i>Nature Ecology and Evolution</i> , 2019, 3, 598-603.	7.8	86
25	Reconciling theories for metabolic scaling. <i>Journal of Animal Ecology</i> , 2014, 83, 20-29.	2.8	81
26	Excluding access to invasion hubs can contain the spread of an invasive vertebrate. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2011, 278, 2900-2908.	2.6	80
27	The –covariation method– for estimating the parameters of the standard Dynamic Energy Budget model II: Properties and preliminary patterns. <i>Journal of Sea Research</i> , 2011, 66, 278-288.	1.6	76
28	Testing Metabolic Theories. <i>American Naturalist</i> , 2012, 180, 546-565.	2.1	74
29	Field tests of a general ectotherm niche model show how water can limit lizard activity and distribution. <i>Ecological Monographs</i> , 2018, 88, 672-693.	5.4	74
30	Early emergence in a butterfly causally linked to anthropogenic warming. <i>Biology Letters</i> , 2010, 6, 674-677.	2.3	68
31	A physiological analogy of the niche for projecting the potential distribution of plants. <i>Journal of Biogeography</i> , 2012, 39, 2132-2145.	3.0	68
32	A Manipulative Test of Competing Theories for Metabolic Scaling. <i>American Naturalist</i> , 2011, 178, 746-754.	2.1	65
33	Color Change for Thermoregulation versus Camouflage in Free-Ranging Lizards. <i>American Naturalist</i> , 2016, 188, 668-678.	2.1	65
34	Linking Eco-Energetics and Eco-Hydrology to Select Sites for the Assisted Colonization of Australia’s Rarest Reptile. <i>Biology</i> , 2013, 2, 1-25.	2.8	61
35	Colour change on different body regions provides thermal and signalling advantages in bearded dragon lizards. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2016, 283, 20160626.	2.6	57
36	Integrating mechanistic and correlative niche models to unravel range-limiting processes in a temperate amphibian. <i>Global Change Biology</i> , 2019, 25, 2633-2647.	9.5	52

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37	A dynamic energy budget for the whole life cycle of holometabolous insects. <i>Ecological Monographs</i> , 2015, 85, 353-371.	5.4	50
38	Mechanistic models for predicting insect responses to climate change. <i>Current Opinion in Insect Science</i> , 2016, 17, 81-86.	4.4	50
39	Reflection of near-infrared light confers thermal protection in birds. <i>Nature Communications</i> , 2018, 9, 3610.	12.8	47
40	Climate-related spatial and temporal variation in bill morphology over the past century in Australian parrots. <i>Journal of Biogeography</i> , 2015, 42, 1163-1175.	3.0	45
41	Predicting climate warming effects on green turtle hatchling viability and dispersal performance. <i>Functional Ecology</i> , 2015, 29, 768-778.	3.6	44
42	Three questions about the eco-physiology of overwintering underground. <i>Ecology Letters</i> , 2021, 24, 170-185.	6.4	42
43	Morphology and burrowing energetics of semi-fossorial skinks ( <i>Liopholis</i> ). <i>Journal of Experimental Biology</i> , 2015, 218, 2416-26.	1.7	40
44	An individual-based model of ectotherm movement integrating metabolic and microclimatic constraints. <i>Methods in Ecology and Evolution</i> , 2018, 9, 472-489.	5.2	40
45	Persistence through tough times: fixed and shifting refuges in threatened species conservation. <i>Biodiversity and Conservation</i> , 2019, 28, 1303-1330.	2.6	40
46	Thermal Sensitivity of <i>Aedes aegypti</i> From Australia: Empirical Data and Prediction of Effects on Distribution. <i>Journal of Medical Entomology</i> , 2011, 48, 914-923.	1.8	39
47	Where do functional traits come from? The role of theory and models. <i>Functional Ecology</i> , 2021, 35, 1385-1396.	3.6	38
48	Ontogenetic and Interspecific Metabolic Scaling in Insects. <i>American Naturalist</i> , 2014, 184, 695-701.	2.1	36
49	Modeling behavioral thermoregulation in a climate change sentinel. <i>Ecology and Evolution</i> , 2015, 5, 5810-5822.	1.9	34
50	Bergmann meets Scholander: geographical variation in body size and insulation in the koala is related to climate. <i>Journal of Biogeography</i> , 2015, 42, 791-802.	3.0	33
51	Reptile embryos and climate change: Modelling limits of viability to inform translocation decisions. <i>Biological Conservation</i> , 2016, 204, 134-147.	4.1	33
52	The trade-off between maturation and growth during accelerated development in frogs. <i>Comparative Biochemistry and Physiology Part A, Molecular &amp; Integrative Physiology</i> , 2012, 163, 95-102.	1.8	32
53	Stage-dependent physiological responses in a butterfly cause non-additive effects on phenology. <i>Oikos</i> , 2012, 121, 1464-1472.	2.7	30
54	The roles of acclimation and behaviour in buffering climate change impacts along elevational gradients. <i>Journal of Animal Ecology</i> , 2020, 89, 1722-1734.	2.8	30

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55	Testing mechanistic models of growth in insects. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2015, 282, 20151973.	2.6	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. <i>Journal of Hydrology</i> , 2018, 561, 662-673.	5.4	28
57	Ontogenetic and interspecific scaling of consumption in insects. <i>Oikos</i> , 2015, 124, 1564-1570.	2.7	26
58	What is the status of metabolic theory one century after Pütter invented the von Bertalanffy growth curve?. <i>Biological Reviews</i> , 2021, 96, 557-575.	10.4	26
59	An estimate of the water budget for the endangered night parrot of Australia under recent and future climates. <i>Climate Change Responses</i> , 2016, 3, .	2.6	25
60	Climate is a strong predictor of near-infrared reflectance but a poor predictor of colour in butterflies. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20190234.	2.6	25
61	Microclimate modelling of beach sand temperatures reveals high spatial and temporal variation at sea turtle rookeries. <i>Journal of Thermal Biology</i> , 2020, 88, 102522.	2.5	22
62	Linking thermal adaptation and life-history theory explains latitudinal patterns of voltinism. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019, 374, 20180547.	4.0	20
63	Dynamic Energy Budget Theory: An Efficient and General Theory for Ecology. <i>BioScience</i> , 2015, 65, 341-341.	4.9	18
64	Has contemporary climate change played a role in population declines of the lizard <i>Ctenophorus decresii</i> from semi-arid Australia?. <i>Journal of Thermal Biology</i> , 2015, 54, 66-77.	2.5	18
65	An endangered flightless grasshopper with strong genetic structure maintains population genetic variation despite extensive habitat loss. <i>Ecology and Evolution</i> , 2021, 11, 5364-5380.	1.9	18
66	Models of primary sex ratios at a major flatback turtle rookery show an anomalous masculinising trend. <i>Climate Change Responses</i> , 2014, 1, .	2.6	15
67	Future winters present a complex energetic landscape of decreased costs and reduced risk for a freeze-tolerant amphibian, the Wood Frog ( <i>Lithobates sylvaticus</i> ). <i>Global Change Biology</i> , 2020, 26, 6350-6362.	9.5	15
68	How will snow alter exposure of organisms to cold stress under climate warming?. <i>Global Ecology and Biogeography</i> , 2020, 29, 1246-1256.	5.8	15
69	Novel applications of thermocyclers for phenotyping invertebrate thermal responses. <i>Methods in Ecology and Evolution</i> , 2016, 7, 1201-1208.	5.2	14
70	One lump or two? Explaining a major latitudinal transition in reproductive allocation in a viviparous lizard. <i>Functional Ecology</i> , 2016, 30, 1373-1383.	3.6	14
71	Life in the slow lane? A dynamic energy budget model for the western swamp turtle, <i>Pseudemydura umbrina</i> . <i>Journal of Sea Research</i> , 2019, 143, 89-99.	1.6	14
72	Modeling the distribution of niche space and risk for a freeze-tolerant ectotherm, <i>Lithobates sylvaticus</i> . <i>Ecosphere</i> , 2019, 10, e02788.	2.2	14

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73	Integrating dynamic plant growth models and microclimates for species distribution modelling. <i>Ecological Modelling</i> , 2020, 435, 109262.	2.5	14
74	A general model of the thermal constraints on the world's most destructive locust, <i>Schistocerca gregaria</i> . <i>Ecological Applications</i> , 2021, 31, e02310.	3.8	14
75	Modelling the joint effects of body size and microclimate on heat budgets and foraging opportunities of ectotherms. <i>Methods in Ecology and Evolution</i> , 2021, 12, 458-467.	5.2	13
76	NicheMapR – an R package for biophysical modelling: the endotherm model. <i>Ecography</i> , 2021, 44, 1595-1605.	4.5	13
77	Summer egg diapause in a matchstick grasshopper synchronizes the life cycle and buffers thermal extremes. <i>Integrative Zoology</i> , 2018, 13, 437-449.	2.6	12
78	A hierarchical approach to understanding physiological associations with climate. <i>Global Ecology and Biogeography</i> , 2022, 31, 332-346.	5.8	12
79	mcera5: Driving microclimate models with ERA5 global gridded climate data. <i>Methods in Ecology and Evolution</i> , 2022, 13, 1402-1411.	5.2	12
80	The effect of egg size on hatch time and metabolic rate: theoretical and empirical insights on developing insect embryos. <i>Functional Ecology</i> , 2017, 31, 227-234.	3.6	11
81	Climate and Fire Scenario Uncertainty Dominate the Evaluation of Options for Conserving the Great Desert Skink. <i>Conservation Letters</i> , 2016, 9, 181-190.	5.7	10
82	Dynamics of death by heat. <i>Science</i> , 2020, 369, 1163-1163.	12.6	10
83	Tracheal branching in ants is area-decreasing, violating a central assumption of network transport models. <i>PLoS Computational Biology</i> , 2020, 16, e1007853.	3.2	10
84	Parthenogenesis without costs in a grasshopper with hybrid origins. <i>Science</i> , 2022, 376, 1110-1114.	12.6	10
85	Using Biophysical Models to Improve Survey Efficiency for Cryptic Ectotherms. <i>Journal of Wildlife Management</i> , 2020, 84, 1185-1195.	1.8	9
86	A replicated comparison of breeding container suitability for the dengue vector <i>Aedes aegypti</i> in tropical and temperate Australia. <i>Austral Ecology</i> , 2013, 38, 219-229.	1.5	8
87	Grasshopper country before and after: a resurvey of Ken Key's collecting expeditions in New South Wales, Australia, 70 years on. <i>Austral Entomology</i> , 2021, 60, 52-65.	1.4	8
88	The Fundamental Niche Concept Connects Individuals to Populations: A Comment on Angilletta et al.. <i>Integrative and Comparative Biology</i> , 2019, 59, 1509-1510.	2.0	7
89	microclimUS: hourly estimates of historical microclimates for the United States of America with example applications. <i>Ecology</i> , 2019, 100, e02829.	3.2	7
90	MicroclimOz – A microclimate data set for Australia, with example applications. <i>Austral Ecology</i> , 2019, 44, 534-544.	1.5	7

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91	Too hot for the devil? Did climate change cause the mid-Holocene extinction of the Tasmanian devil <i>Sarcophilus harrisii</i> from mainland Australia?. <i>Ecography</i> , 2022, 2022, .	4.5	7
92	Too hot to handle? Balancing increased trapability with capture mortality in hot weather pitfall trapping. <i>Austral Ecology</i> , 2016, 41, 918-926.	1.5	5
93	Too much hot air? Informing ethical trapping in hot, dry environments. <i>Wildlife Research</i> , 2018, 45, 16.	1.4	5
94	Too hot to hunt: Mechanistic predictions of thermal refuge from cat predation risk. <i>Conservation Letters</i> , 2022, 15, .	5.7	5
95	Geostatistical interpolation can reliably extend coverage of a very high-resolution model of temperature-dependent sex determination. <i>Journal of Biogeography</i> , 2018, 45, 652-663.	3.0	4
96	The matchstick grasshopper genus <i>Warramaba</i> (Morabidae: Morabinae): a description of four new species and a photographic guide to the group. <i>Zootaxa</i> , 2018, 4482, 201-244.	0.5	3
97	Mechanisms and consequences of changing body size: reply to Bickford et al. and McCauley and Mabry. <i>Trends in Ecology and Evolution</i> , 2011, 26, 555-556.	8.7	2
98	The universality of the von Bertalanffy growth curve. <i>Physics of Life Reviews</i> , 2017, 20, 63-65.	2.8	2