Michael Kaspari

List of Publications by Year
in descending order

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Version: 2024-02-01

140	7,795	53751	58549
papers	citations	45 h-index	82 g-index

145	145	145	7414
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Potassium, phosphorus, or nitrogen limit root allocation, tree growth, or litter production in a lowland tropical forest. Ecology, 2011, 92, 1616-1625.	1.5	478
2	Temperature mediates continental-scale diversity of microbes in forest soils. Nature Communications, 2016, 7, 12083.	5.8	419
3	Multiple nutrients limit litterfall and decomposition in a tropical forest. Ecology Letters, 2008, 11, 35-43.	3.0	369
4	Energy, Density, and Constraints to Species Richness: Ant Assemblages along a Productivity Gradient. American Naturalist, 2000, 155, 280-293.	1.0	256
5	Thermal adaptation generates a diversity of thermal limits in a rainforest ant community. Global Change Biology, 2015, 21, 1092-1102.	4.2	254
6	Climatic drivers of hemispheric asymmetry in global patterns of ant species richness. Ecology Letters, 2009, 12, 324-333.	3.0	233
7	Colony Size as a Buffer Against Seasonality: Bergmann's Rule in Social Insects. American Naturalist, 1995, 145, 610-632.	1.0	203
8	The energetic and carbon economic origins of leaf thermoregulation. Nature Plants, 2016, 2, 16129.	4.7	178
9	Plant Thermoregulation: Energetics, Traitâ€“Environment Interactions, and Carbon Economics. Trends in Ecology and Evolution, 2015, 30, 714-724.	4.2	154
10	Body size and microclimate use in Neotropical granivorous ants. Oecologia, 1993, 96, 500-507.	0.9	146
11	Three energy variables predict ant abundance at a geographical scale. Proceedings of the Royal Society B: Biological Sciences, 2000, 267, 485-489.	1.2	145
12	Sodium shortage as a constraint on the carbon cycle in an inland tropical rainforest. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 19405-19409.	3.3	144
13	Spatial Grain and the Causes of Regional Diversity Gradients in Ants. American Naturalist, 2003, 161, 459-477.	1.0	139
14	Biogeochemistry and Geographical Ecology: Embracing All Twenty-Five Elements Required to Build Organisms. American Naturalist, 2016, 188, S62-S73.	1.0	134
15	Testing Resource-Based Models of Patchiness in Four Neotropical Litter Ant Assemblages. Oikos, 1996, 76, 443.	1.2	123
16	Directed aerial descent in canopy ants. Nature, 2005, 433, 624-626.	13.7	123
17	Energetic basis of colonial living in social insects. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3634-3638.	3.3	123
18	Energy gradients and the geographic distribution of local ant diversity. Oecologia, 2004, 140, 407-413.	0.9	117

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19	Ecological morphospace of New World ants. Ecological Entomology, 2006, 31, 131-142.	1.1	116
20	On the biogeography of salt limitation: A study of ant communities. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17848-17851.	3.3	114
21	Ant Activity along Moisture Gradients in a Neotropical Forest1. Biotropica, 2000, 32, 703.	0.8	109
22	Plant responses to fertilization experiments in lowland, speciesâ€rich, tropical forests. Ecology, 2018, 99, 1129-1138.	1.5	105
23	Biogeochemistry and the structure of tropical brown food webs. Ecology, 2009, 90, 3342-3351.	1.5	104
24	Nutrient dilution and climate cycles underlie declines in a dominant insect herbivore. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7271-7275.	3.3	97
25	Removal of seeds from Neotropical frugivore droppings. Oecologia, 1993, 95, 81-88.	0.9	93
26	Variable Responses of Lowland Tropical Forest Nutrient Status to Fertilization and Litter Manipulation. Ecosystems, 2012, 15, 387-400.	1.6	91
27	Litter ant patchiness at the 1-m2 scale: disturbance dynamics in three Neotropical forests. Oecologia, 1996, 107, 265-273.	0.9	88
28	Desiccation resistance in tropical insects: causes and mechanisms underlying variability in a Panama ant community. Ecology and Evolution, 2016, 6, 6282-6291.	0.8	86
29	Fifty Years of Mountain Passes: A Perspective on Dan Janzenâ€™s Classic Article. American Naturalist, 2018, 191, 553-565.	1.0	85
30	Sodium fertilization increases termites and enhances decomposition in an Amazonian forest. Ecology, 2014, 95, 795-800.	1.5	82
31	The seventh macronutrient: how sodium shortfall ramifies through populations, food webs and ecosystems. Ecology Letters, 2020, 23, 1153-1168.	3.0	80
32	Biogeographic patterns of soil diazotrophic communities across six forests in the North America. Molecular Ecology, 2016, 25, 2937-2948.	2.0	76
33	Global energy gradients and size in colonial organisms: Worker mass and worker number in ant colonies. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 5079-5083.	3.3	69
34	Towards a general life-history model of the superorganism: predicting the survival, growth and reproduction of ant societies. Biology Letters, 2012, 8, 1059-1062.	1.0	69
35	Prey Choice by Three Insectivorous Grassland Birds: Reevaluating Opportunism. Oikos, 1993, 68, 414.	1.2	68
36	Nutrient enrichment increased species richness of leaf litter fungal assemblages in a tropical forest. Molecular Ecology, 2013, 22, 2827-2838.	2.0	61

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37	Army ants in four forests: geographic variation in raid rates and species composition. Journal of Animal Ecology, 2007, 76, 580-589.	1.3	58
38	Bottom-up and top-down regulation of decomposition in a tropical forest. Oecologia, 2007, 153, 163-172.	0.9	58
39	Taxonomic level, trophic biology and the regulation of local abundance. Global Ecology and Biogeography, 2001, 10, 229-244.	2.7	57
40	Lust for Salt in the Western <scp>A</scp>mazon. Biotropica, 2012, 44, 6-9.	0.8	57
41	Gliding hexapods and the origins of insect aerial behaviour. Biology Letters, 2009, 5, 510-512.	1.0	55
42	Trees as templates for tropical litter arthropod diversity. Oecologia, 2010, 164, 201-211.	0.9	52
43	Distributional (In)Congruence of Biodiversityâ€“Ecosystem Functioning. Advances in Ecological Research, 2012, 46, 1-88.	1.4	52
44	The phenology of a Neotropical ant assemblage: evidence for continuous and overlapping reproduction. Behavioral Ecology and Sociobiology, 2001, 50, 382-390.	0.6	50
45	Caste allocation in litter Pheidole: lessons from plant defense theory. Behavioral Ecology and Sociobiology, 1995, 37, 255-263.	0.6	49
46	Prey preparation and the determinants of handling time. Animal Behaviour, 1990, 40, 118-126.	0.8	48
47	Seasonal plasticity of thermal tolerance in ants. Ecology, 2020, 101, e03051.	1.5	48
48	Biogeography of litter depth in tropical forests: evaluating the phosphorus growth rate hypothesis. Functional Ecology, 2008, 22, 919-923.	1.7	46
49	Biogeochemistry drives diversity in the prokaryotes, fungi, and invertebrates of a Panama forest. Ecology, 2017, 98, 2019-2028.	1.5	46
50	Nutrition modifies critical thermal maximum of a dominant canopy ant. Journal of Insect Physiology, 2017, 102, 1-6.	0.9	45
51	Species-Specific Nest Selection by Birds in Ant-Acacia Trees. Biotropica, 1990, 22, 310.	0.8	44
52	Thermal constraints on foraging of tropical canopy ants. Oecologia, 2017, 183, 1007-1017.	0.9	44
53	Bait Use in Tropical Litter and Canopy Antsâ€"Evidence of Differences in Nutrient Limitation1. Biotropica, 2001, 33, 207.	0.8	42
54	A distributed experiment demonstrates widespread sodium limitation in grassland food webs. Ecology, 2019, 100, e02600.	1.5	42

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55	The reproductive flight phenology of a neotropical ant assemblage. Ecological Entomology, 2001, 26, 245-257.	1.1	41
56	Short-term sodium inputs attract microbi-detritivores and their predators. Soil Biology and Biochemistry, 2014, 75, 248-253.	4.2	40
57	Sodium coâ€limits and catalyzes macronutrients in a prairie food web. Ecology, 2017, 98, 315-320.	1.5	40
58	Abiotic factors and plant biomass, not plant diversity, strongly shape grassland arthropods under drought conditions. Ecology, 2020, 101, e03033.	1.5	39
59	The Invisible Hand of the Periodic Table: How Micronutrients Shape Ecology. Annual Review of Ecology, Evolution, and Systematics, 2021, 52, 199-219.	3.8	39
60	Predation and patchiness in the tropical litter: do swarm-raiding army ants skim the cream or drain the bottle?. Journal of Animal Ecology, 2011, 80, 818-823.	1.3	38
61	A carbohydrate-rich diet increases social immunity in ants. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20132374.	1.2	37
62	A global database of ant species abundances. Ecology, 2017, 98, 883-884.	1.5	37
63	The size?grain hypothesis: do macroarthropods see a fractal world?. Ecological Entomology, 2007, 32, 279-282.	1.1	36
64	Toward a theory for diversity gradients: the abundanceâ€“adaptation hypothesis. Ecography, 2018, 41, 255-264.	2.1	36
65	Eusocial insects as superorganisms. Communicative and Integrative Biology, 2010, 3, 360-362.	0.6	35
66	Using nutritional ecology to predict community structure: a field test in Neotropical ants. Ecosphere, 2012, 3, 1-15.	1.0	35
67	Thermal adaptation and phosphorus shape thermal performance in an assemblage of rainforest ants. Ecology, 2016, 97, 1038-1047.	1.5	34
68	Continental scale structuring of forest and soil diversity via functional traits. Nature Ecology and Evolution, 2019, 3, 1298-1308.	3.4	34
69	Do Imported Fire Ants Impact Canopy Arthropods? Evidence from Simple Arboreal Pitfall Traps. Southwestern Naturalist, 2000, 45, 118.	0.1	33
70	USING THE METABOLIC THEORY OF ECOLOGY TO PREDICT GLOBAL PATTERNS OF ABUNDANCE. Ecology, 2004, 85, 1800-1802.	1.5	33
71	From cryptic herbivore to predator: stable isotopes reveal consistent variability in trophic levels in an ant population. Ecology, 2017, 98, 297-303.	1.5	33
72	Thermal diversity of North American ant communities: Cold tolerance but not heat tolerance tracks ecosystem temperature. Global Ecology and Biogeography, 2020, 29, 1486-1494.	2.7	33

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73	Studies of insect temporal trends must account for the complex sampling histories inherent to many long-term monitoring efforts. Nature Ecology and Evolution, 2021, 5, 589-591.	3.4	32
74	The microbiome of the antâ€built home: the microbial communities of a tropical arboreal ant and its nest. Ecosphere, 2017, 8, e01639.	1.0	31
75	Salted roads and sodium limitation in a northern forest ant community. Ecological Entomology, 2010, 35, 543-548.	1.1	30
76	Towards a geography of omnivory: Omnivores increase carnivory when sodium is limiting. Journal of Animal Ecology, 2017, 86, 1523-1531.	1.3	30
77	Urine as an important source of sodium increases decomposition in an inland but not coastal tropical forest. Oecologia, 2015, 177, 571-579.	0.9	29
78	Using metabolic and thermal ecology to predict temperature dependent ecosystem activity: a test with prairie ants. Ecology, 2018, 99, 2113-2121.	1.5	29
79	ON ECTOTHERM ABUNDANCE IN A SEASONAL ENVIRONMENTâ€"STUDIES OF A DESERT ANT ASSEMBLAGE. Ecology, 2002, 83, 2991-2996.	1.5	27
80	More food, less habitat: how necromass and leaf litter decomposition combine to regulate a litter ant community. Ecological Entomology, 2010, 35, 158-165.	1.1	27
81	Metabolism and the Rise of Fungus Cultivation by Ants. American Naturalist, 2014, 184, 364-373.	1.0	26
82	Bottomâ€up when it is not topâ€down: Predators and plants control biomass of grassland arthropods. Journal of Animal Ecology, 2020, 89, 1286-1294.	1.3	25
83	Manna from heaven: Refuse from an arboreal ant links aboveground and belowground processes in a lowland tropical forest. Ecosphere, 2013, 4, 1-15.	1.0	24
84	Canopy and litter ant assemblages share similar climateâ€"species density relationships. Biology Letters, 2010, 6, 769-772.	1.0	23
85	Scaling community structure: how bacteria, fungi, and ant taxocenes differentiate along a tropical forest floor. Ecology, 2010, 91, 2221-2226.	1.5	23
86	Plants regulate grassland arthropod communities through biomass, quality, and habitat heterogeneity. Ecosphere, 2019, 10, e02909.	1.0	23
87	Prey preparation as a way that grasshopper sparrows (Ammodramus savannarum) increase the nutrient concentration of their prey. Behavioral Ecology, 1991, 2, 234-241.	1.0	22
88	Taxonomic decomposition of the latitudinal gradient in species diversity of North American floras. Journal of Biogeography, 2018, 45, 418-428.	1.4	22
89	The role of temperature in competition and persistence of an invaded ant assemblage. Ecological Entomology, 2018, 43, 774-781.	1.1	22
90	Ant Activity along Moisture Gradients in a Neotropical Forest¹. Biotropica, 2000, 32, 703-711.	0.8	21

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91	Central Place Foraging in Grasshopper Sparrows: Opportunism or Optimal Foraging in a Variable Environment?. Oikos, 1991, 60, 307.	1.2	20
92	Extraordinary Predation by the Neotropical Army Ant Cheliomyrmex andicola: Implications for the Evolution of the Army Ant Syndrome1. Biotropica, 2005, 37, 706-709.	0.8	20
93	Diet composition does not affect ant colony tempo. Functional Ecology, 2012, 26, 317-323.	1.7	20
94	Species energy and Thermal Performance Theory predict 20â€yr changes in ant community abundance and richness. Ecology, 2019, 100, e02888.	1.5	20
95	Salty, mild, and low plant biomass grasslands increase topâ€heaviness of invertebrate trophic pyramids. Global Ecology and Biogeography, 2020, 29, 1474-1485.	2.7	20
96	Thermal traits predict the winners and losers under climate change: an example from North American ant communities. Ecosphere, 2021, 12, e03645.	1.0	20
97	The life history continuum hypothesis links traits of male ants with life outside the nest. Entomologia Experimentalis Et Applicata, 2013, 149, 99-109.	0.7	19
98	The nutritional geography of ants: Gradients of sodium and sugar limitation across North American grasslands. Journal of Animal Ecology, 2020, 89, 276-284.	1.3	19
99	Micronutrients enhance macronutrient effects in a metaâ€analysis of grassland arthropod abundance. Global Ecology and Biogeography, 2020, 29, 2273-2288.	2.7	18
100	Energy, taxonomic aggregation, and the geography of ant abundance. Ecography, 2012, 35, 65-72.	2.1	17
101	Species and site differences in Neotropical army ant emigration behaviour. Ecological Entomology, 2009, 34, 476-482.	1.1	16
102	Robust and simplified machine learning identification of pitfall trapâ€collected ground beetles at the continental scale. Ecology and Evolution, 2020, 10, 13143-13153.	0.8	15
103	Sodium addition increases leaf herbivory and fungal damage across four grasslands. Functional Ecology, 2021, 35, 1212-1221.	1.7	15
104	Sodium-enriched floral nectar increases pollinator visitation rate and diversity. Biology Letters, 2022, 18, 20220016.	1.0	15
105	Dietary sodium levels affect grasshopper growth and performance. Ecosphere, 2021, 12, e03392.	1.0	14
106	Disturbance Mediates Homogenization of Above and Belowground Invertebrate Communities. Environmental Entomology, 2018, 47, 545-550.	0.7	13
107	Interactions between granivorous and omnivorous ants in a desert grassland: results from a long-term experiment. Ecological Entomology, 2005, 30, 116-121.	1.1	12
108	A life history continuum in the males of a Neotropical ant assemblage: refuting the sperm vessel hypothesis. Die Naturwissenschaften, 2012, 99, 191-197.	0.6	12

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109	How and why plant ionomes vary across North American grasslands and its implications for herbivore abundance. Ecology, 2021, 102, e03459.	1.5	12
110	Biogeochemical drivers of Neotropical ant activity and diversity. Ecosphere, 2016, 7, e01597.	1.0	11
111	Tracking nutrients in space and time: Interactions between grazing lawns and drought drive abundances of tallgrass prairie grasshoppers. Ecology and Evolution, 2021, 11, 5413-5423.	0.8	9
112	Caste allocation in litter Pheidole : lessons from plant defense theory. Behavioral Ecology and Sociobiology, 1995, 37, 255-263.	0.6	9
113	Antibiotics as chemical warfare across multiple taxonomic domains and trophic levels in brown food webs. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191536.	1.2	8
114	On the geography of activity: productivity but not temperature constrains discovery rates by ectotherm consumers. Ecosphere, 2019, 10, e02536.	1.0	8
115	In a globally warming world, insects act locally to manipulate their own microclimate. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5220-5222.	3.3	7
116	Preliminary Assessment of Metabolic Costs of the Nematode Myrmeconema neotropicum on its Host, the Tropical Ant Cephalotes atratus. Journal of Parasitology, 2011, 97, 958-959.	0.3	6
117	Trophic differences regulate grassland food webs: herbivores track food quality and predators select for habitat volume. Ecology, 2021, 102, e03453.	1.5	6
118	Activity density at a continental scale: What drives invertebrate biomass moving across the soil surface?. Ecology, 2021, , e03542.	1.5	6
119	How and why grasshopper community maturation rates are slowing on a North American tall grass prairie. Biology Letters, 2022, 18, 20210510.	1.0	6
120	Evolutionary ecology, antibiosis, and all that rot. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19027-19028.	3.3	5
121	Road salt offers insights into the connections between diet and neural development. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10033-10034.	3.3	5
122	Nutrient transfer supports a beneficial relationship between the canopy ant, <scp>Azteca trigona</scp>, and its host tree. Ecological Entomology, 2018, 43, 621-628.	1.1	5
123	Robust metagenomic evidence that local assemblage richness increases with latitude in groundâ€active invertebrates of North America. Oikos, 2022, 2022, .	1.2	5
124	Correspondence: Reply to â€˜Analytical flaws in a continental-scale forest soil microbial diversity studyâ€™. Nature Communications, 2017, 8, 15583.	5.8	4
125	Tropical ant community responses to experimental soil warming. Biology Letters, 2022, 18, 20210518.	1.0	4
126	Meet the New Boss, Same as the Old Boss. Science, 2014, 343, 974-975.	6.0	2

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127	Thermal disruption of soil bacterial assemblages decreases diversity and assemblage similarity. Ecosphere, 2019, 10, e02598.	1.0	2
128	Diurnal and nocturnal foraging specialisation in Neotropical army ants. Ecological Entomology, 2021, 46, 352-359.	1.1	2
129	Knowing Your Warblers: Thoughts on the 50th Anniversary of Macarthur (1958)[*]. Bulletin of the Ecological Society of America, 2008, 89, 448-458.	0.2	1
130	Testing the role of body size and litter depth on invertebrate diversity across six forests in North America. Ecology, 2021, , e03601.	1.5	1
131	On Ectotherm Abundance in a Seasonal Environment-Studies of a Desert Ant Assemblage. Ecology, 2002, 83, 2991.	1.5	0
132	An Ant Cornucopia, Translated. BioScience, 2010, 60, 78-79.	2.2	0
133	Adventures among Ants: A Global Safari with a Cast of Trillions. By Mark W.ÂMoffett. Berkeley (California): University of California Press. $29.95. vii + 280 p.; ill.; index. ISBN: 978â€0â€520â€26199â€0. 2010.. Quarterly Review of Biology, 2011, 86, 359-360.	0.0	0
134	A Distributed Experiment Demonstrates Widespread Sodium Limitation in Grassland Food Webs. Bulletin of the Ecological Society of America, 2019, 100, e01509.	0.2	0
135	Biogeochemistry and forest composition shape nesting patterns of a dominant canopy ant. Oecologia, 2019, 189, 221-230.	0.9	0
136	Seasonal Plasticity of Thermal Tolerance in Ants. Bulletin of the Ecological Society of America, 2020, 101, e01708.	0.2	0
137	Species Energy and Thermal Performance Theory Predict 20â€Year Changes in Ant Community Abundance and Richness. Bulletin of the Ecological Society of America, 2020, 101, e01623.	0.2	0
138	Salt of Life: High Sodium Diets Produce Longerâ€Jumping, Smaller Grasshoppers. Bulletin of the Ecological Society of America, 2021, 102, e01861.	0.2	0
139	Forest Litter Insect Communities: Biology and Chemical Ecology.T. N. Ananthakrishnan. Quarterly Review of Biology, 1997, 72, 104-104.	0.0	0
140	Thermal adaptation and phosphorus shape thermal performance in an assemblage of rainforest ants. Ecology, 2016, , .	1.5	0