James H Brown

List of Publications by Year
in descending order

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90 papers	27,671 citations	43973 48 h-index	51492 86 g-index
96 all docs	96 docs citations	96 times ranked	25530 citing authors

#	Article	IF	Citations
1	Universal rules of life: metabolic rates, biological times and the equal fitness paradigm. Ecology Letters, 2021, 24, 1262-1281.	3.0	38
2	Energy use and the sustainability of intensifying food production. Nature Sustainability, 2020, 3, 257-259.	11.5	23
3	Declining Country-Level Food Self-Sufficiency Suggests Future Food Insecurities. BioPhysical Economics and Resource Quality, 2019, 4, 1.	2.4	16
4	Metabolic asymmetry and the global diversity of marine predators. Science, 2019, 363, .	6.0	81
5	The Central Role of Energy in the Urban Transition: Global Challenges for Sustainability. BioPhysical Economics and Resource Quality, 2019, 4, 1.	2.4	19
6	Toward a metabolic theory of life history. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26653-26661.	3.3	54
7	The genesis of macroecology: In memory of Brian Maurer. Global Ecology and Biogeography, 2019, 28, 4-5.	2.7	2
8	Equal fitness paradigm explained by a trade-off between generation time and energy production rate. Nature Ecology and Evolution, 2018, 2, 262-268.	3.4	75
9	The shark-tuna dichotomy: why tuna lay tiny eggs but sharks produce large offspring. Royal Society Open Science, 2018, 5, 180453.	1.1	11
10	Correspondence: Reply to â€˜Analytical flaws in a continental-scale forest soil microbial diversity studyâ€™. Nature Communications, 2017, 8, 15583.	5.8	4
11	Long-term monitoring and experimental manipulation of a Chihuahuan desert ecosystem near Portal, Arizona (1977-2013). Ecology, 2016, 97, 1082-1082.	1.5	25
12	Temperature mediates continental-scale diversity of microbes in forest soils. Nature Communications, 2016, 7, 12083.	5.8	419
13	Energy and time determine scaling in biological and computer designs. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150446.	1.8	12
14	The macroecology of infectious diseases: a new perspective on globalâ€scale drivers of pathogen distributions and impacts. Ecology Letters, 2016, 19, 1159-1171.	3.0	126
15	Biogeographic patterns of soil diazotrophic communities across six forests in the North America. Molecular Ecology, 2016, 25, 2937-2948.	2.0	76
16	Metabolic heat production and thermal conductance are mass-independent adaptations to thermal environment in birds and mammals. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15934-15939.	3.3	77
17	Metabolic theory predicts whole-ecosystem properties. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2617-2622.	3.3	117
18	Human domination of the biosphere: Rapid discharge of the earth-space battery foretells the future of humankind. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9511-9517.	3.3	80

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19	Fundamental insights into ontogenetic growth from theory and fish. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13934-13939.	3.3	45
20	Why are there so many species in the tropics?. Journal of Biogeography, 2014, 41, 8-22.	1.4	608
21	Rates of biotic interactions scale predictably with temperature despite variation. Oikos, 2014, 123, 1449-1456.	1.2	43
22	Macroecology meets macroeconomics: Resource scarcity and global sustainability. Ecological Engineering, 2014, 65, 24-32.	1.6	49
23	Why Marine Islands Are Farther Apart in the Tropics. American Naturalist, 2014, 183, 842-846.	1.0	14
24	Ecological roles and conservation challenges of social, burrowing, herbivorous mammals in the world's grasslands. Frontiers in Ecology and the Environment, 2012, 10, 477-486.	1.9	247
25	The role of phylogeny in desert rodent community assembly. Journal of Animal Ecology, 2012, 81, 307-309.	1.3	2
26	The ecology of lizard reproductive output. Global Ecology and Biogeography, 2012, 21, 592-602.	2.7	84
27	Interspecific pairwise relationships among body size, clutch size and latitude: deconstructing a macroecological triangle in birds. Journal of Biogeography, 2010, 37, 47-56.	1.4	16
28	Redundant or complementary? Impact of a colonizing species on community structure and function. Oikos, 2010, 119, 1719-1726.	1.2	32
29	Shifts in metabolic scaling, production, and efficiency across major evolutionary transitions of life. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12941-12945.	3.3	341
30	Response to Comments on â€œEnergy Uptake and Allocation During Ontogenyâ€. Science, 2009, 325, 1206-1206.	6.0	12
31	Two-phase increase in the maximum size of life over 3.5 billion years reflects biological innovation and environmental opportunity. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 24-27.	3.3	260
32	Longâ€term monitoring and experimental manipulation of a Chihuahuan Desert ecosystem near Portal, Arizona, USA. Ecology, 2009, 90, 1708-1708.	1.5	39
33	Native fishes, exotic mammals, and the conservation of desert springs. Frontiers in Ecology and the Environment, 2007, 5, 549-553.	1.9	71
34	Dynamics of fish in Australian desert springs: role of largeâ€mammal disturbance. Diversity and Distributions, 2007, 13, 789-798.	1.9	12
35	INTRA-GUILD COMPENSATION REGULATES SPECIES RICHNESS IN DESERT RODENTS: REPLY. Ecology, 2006, 87, 2121-2125.	1.5	8
36	The island rule and a research agenda for studying ecogeographical patterns. Journal of Biogeography, 2006, 33, 1503-1510.	1.4	111

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37	Life-history evolution under a production constraint. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17595-17599.	3.3	134
38	INTRA-GUILD COMPENSATION REGULATES SPECIES RICHNESS IN DESERT RODENTS. Ecology, 2005, 86, 567-573.	1.5	33
39	RESPONSE TO FORUM COMMENTARY ON â€œTOWARD A METABOLIC THEORY OF ECOLOGYâ€. Ecology, 2004, 85, 1818-1821.	1.5	47
40	Energetic determinants of abundance in winter landbird communities. Ecology Letters, 2004, 7, 532-537.	3.0	84
41	Was a â€˜hyperdiseaseâ€™ responsible for the late Pleistocene megafaunal extinction?. Ecology Letters, 2004, 7, 859-868.	3.0	35
42	An Essay on Some Topics Concerning Invasive Species. Austral Ecology, 2004, 29, 530-536.	0.7	149
43	TOWARD A METABOLIC THEORY OF ECOLOGY. Ecology, 2004, 85, 1771-1789.	1.5	5,745
44	Allometry of human fertility and energy use. Ecology Letters, 2003, 6, 295-300.	3.0	56
45	Thermodynamic and metabolic effects on the scaling of production and population energy use. Ecology Letters, 2003, 6, 990-995.	3.0	215
46	How reliable is the biological time clock?. Nature, 2003, 424, 270-270.	13.7	5
47	Response to Comment on "Global Biodiversity, Biochemical Kinetics, and the Energetic-Equivalence Rule". Science, 2003, 299, 346c-346.	6.0	11
48	Ecological food webs: High-quality data facilitate theoretical unification. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 1467-1468.	3.3	184
49	Assembly Rules and Competition in Desert Rodents. American Naturalist, 2002, 160, 815-818.	1.0	40
50	The fractal nature of nature: power laws, ecological complexity and biodiversity. Philosophical Transactions of the Royal Society B: Biological Sciences, 2002, 357, 619-626.	1.8	320
51	Timescale of Perennial Grass Recovery in Desertified Arid Grasslands Following Livestock Removal. Conservation Biology, 2002, 16, 995-1002.	2.4	131
52	Effects of size and temperature on developmental time. Nature, 2002, 417, 70-73.	13.7	798
53	Longâ€term dynamics of winter and summer annual communities in the Chihuahuan Desert. Journal of Vegetation Science, 2002, 13, 575-584.	1.1	38
54	Long-term dynamics of winter and summer annual communities in the Chihuahuan Desert. , 2002, 13, 575.		4

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55	Delayed Compensation for Missing Keystone Species by Colonization. Science, 2001, 292, 101-104.	6.0	89
56	Regulation of diversity: maintenance of species richness in changing environments. Oecologia, 2001, 126, 321-332.	0.9	273
57	Effects of Size and Temperature on Metabolic Rate. Science, 2001, 293, 2248-2251.	6.0	2,927
58	HOMEOSTASIS AND COMPENSATION: THE ROLE OF SPECIES AND RESOURCES IN ECOSYSTEM STABILITY. Ecology, 2001, 82, 2118-2132.	1.5	46
59	Abundance and distribution of desert annuals: are spatial and temporal patterns related?. Journal of Ecology, 2000, 88, 551-560.	1.9	58
60	CONSTRAINTS OF SEED SIZE ON PLANT DISTRIBUTION AND ABUNDANCE. Ecology, 2000, 81, 2149-2155.	1.5	112
61	GAPS IN MAMMALIAN BODY SIZE DISTRIBUTIONS REEXAMINED. Ecology, 1999, 80, 2788-2792.	1.5	41
62	Invasion of North American drainages by alien fish species. Freshwater Biology, 1999, 42, 387-399.	1.2	186
63	Patterns in the structure of Asian and North American desert small mammal communities. Journal of Biogeography, 1999, 26, 825-841.	1.4	31
64	Allometric scaling of production and life-history variation in vascular plants. Nature, 1999, 401, 907-911.	13.7	570
65	The Fourth Dimension of Life: Fractal Geometry and Allometric Scaling of Organisms. Science, 1999, 284, 1677-1679.	6.0	1,459
66	GAPS IN MAMMALIAN BODY SIZE DISTRIBUTIONS REEXAMINED. , 1999, 80, 2788.		3
67	Constraints on dispersal and the evolution of the avifauna of the Northern Hemisphere. Evolutionary Ecology, 1998, 12, 767-783.	0.5	72
68	A General Model for the Origin of Allometric Scaling Laws in Biology. Science, 1997, 276, 122-126.	6.0	4,069
69	Interactions between winter and summer annuals in the Chihuahuan Desert. Oecologia, 1997, 111, 123-128.	0.9	45
70	Historical and Cultural Perspectives on Grazing: Reply to Dudley. Conservation Biology, 1997, 11, 270-272.	2.4	5
71	THE GEOGRAPHIC RANGE: Size, Shape, Boundaries, and Internal Structure. Annual Review of Ecology, Evolution, and Systematics, 1996, 27, 597-623.	6.7	1,097
72	Temporal fluctuations and experimental effects in desert plant communities. Oecologia, 1996, 107, 568-577.	0.9	50

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73	Individualistic responses of bird species to environmental change. Oecologia, 1995, 101, 478-486.	0.9	41
74	Catastrophic Decline of a Desert Rodent, Dipodomys spectabilis: Insights from a Long-Term Study. Journal of Mammalogy, 1995, 76, 428-436.	0.6	41
75	Global Patterns of Mammalian Diversity, Endemism, and Endangerment. Conservation Biology, 1995, 9, 559-568.	2.4	198
76	Livestock Grazing and Conservation on Southwestern Rangelands. Conservation Biology, 1995, 9, 1644-1647.	2.4	94
77	Effects of kangaroo rat exclusion on vegetation structure and plant species diversity in the Chihuahuan Desert. Oecologia, 1993, 95, 520-524.	0.9	130
78	THE MICRO AND MACRO IN BODY SIZE EVOLUTION. Evolution; International Journal of Organic Evolution, 1992, 46, 939-953.	1.1	178
79	Control of a Desert-Grassland Transition by a Keystone Rodent Guild. Science, 1990, 250, 1705-1707.	6.0	546
80	Independent Discovery of the Equilibrium Theory of Island Biogeography. Ecology, 1989, 70, 1954-1957.	1.5	50
81	A Method for Distinguishing Dispersal from Death in Mark-Recapture Studies. Journal of Mammalogy, 1987, 68, 656-665.	0.6	23
82	Evolution of Species Assemblages: Effects of Energetic Constraints and Species Dynamics on the Diversification of the North American Avifauna. American Naturalist, 1987, 130, 1-17.	1.0	370
83	Body size, energy use and ecological dominance. Nature, 1987, 328, 118-118.	13.7	3
84	Body size, ecological dominance and Cope's rule. Nature, 1986, 324, 248-250.	13.7	324
85	Community Organization in Hummingbirds: Relationships between Morphology and Ecology. Auk, 1985, 102, 251-269.	0.7	93
86	On the Relationship between Abundance and Distribution of Species. American Naturalist, 1984, 124, 255-279.	1.0	2,647
87	Summer Rainfall and Winter Sparrow Densities: A Test of the Food Limitation Hypothesis. Auk, 1982, 99, 123-129.	0.7	76
88	Two Decades of Homage to Santa Rosalia: Toward a General Theory of Diversity. American Zoologist, 1981, 21, 877-888.	0.7	424
89	The Use of Torpor by Perognathus amplus in Relation to Resource Distribution. Journal of Mammalogy, 1979, 60, 550-555.	0.6	19
90	The Changing Role of Women in North American Mammalogy. Journal of Mammalogy, 0, , .	0.6	1