Brian M Barnes

List of Publications by Year
in descending order

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		87843	110317
91	4,491	38	64
papers	citations	h-index	g-index

91	91	91	3507
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hibernation in Black Bears: Independence of Metabolic Suppression from Body Temperature. Science, 2011, 331, 906-909.	6.0	363
2	Effects of ambient temperature on metabolic rate, respiratory quotient, and torpor in an arctic hibernator. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2000, 279, R255-R262.	0.9	228
3	Molecular and Metabolic Aspects of Mammalian Hibernation. BioScience, 1999, 49, 713-724.	2.2	202
4	Annual rhythms that underlie phenology: biological time-keeping meets environmental change. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20130016.	1.2	177
5	Central nervous system regulation of mammalian hibernation: implications for metabolic suppression and ischemia tolerance. Journal of Neurochemistry, 2007, 102, 1713-1726.	2.1	154
6	Modulation of gene expression in hibernating arctic ground squirrels. Physiological Genomics, 2008, 32, 170-181.	1.0	131
7	The Influence of Hibernation on Testis Growth and Spermatogenesis in the Golden-Mantled Ground Squirrel, Spermophilus Lateralis1. Biology of Reproduction, 1986, 35, 1289-1297.	1.2	119
8	Phenological variation in annual timing of hibernation and breeding in nearby populations of Arctic ground squirrels. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2369-2375.	1.2	107
9	The Physiological Link between Metabolic Rate Depression and Tau Phosphorylation in Mammalian Hibernation. PLoS ONE, 2011, 6, e14530.	1.1	100
10	A nonprotein thermal hysteresis-producing xylomannan antifreeze in the freeze-tolerant Alaskan beetle Upis ceramboides. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20210-20215.	3.3	96
11	Energetics of arousal episodes in hibernating arctic ground squirrels. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2009, 179, 691-700.	0.7	96
12	Elevated expression of protein biosynthesis genes in liver and muscle of hibernating black bears (Ursus americanus). Physiological Genomics, 2009, 37, 108-118.	1.0	95
13	Modulation of gene expression in heart and liver of hibernating black bears (Ursus americanus). BMC Genomics, 2011, 12, 171.	1.2	86
14	Animal activity around the clock with no overt circadian rhythms: patterns, mechanisms and adaptive value. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20130019.	1.2	83
15	mRNA Stability and Polysome Loss in Hibernating Arctic Ground Squirrels (Spermophilus parryii). Molecular and Cellular Biology, 2000, 20, 6374-6379.	1.1	82
16	BODY TEMPERATURE AND ACTIVITY PATTERNS IN FREE-LIVING ARCTIC GROUND SQUIRRELS. Journal of Mammalogy, 2005, 86, 314-322.	0.6	82
17	Shotgun Proteomics Analysis of Hibernating Arctic Ground Squirrels. Molecular and Cellular Proteomics, 2010, 9, 313-326.	2.5	81
18	Metabolic Rate and Prehibernation Fattening in Free-Living Arctic Ground Squirrels. Physiological and Biochemical Zoology, 2013, 86, 515-527.	0.6	80

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19	Comparative overwintering physiology of Alaska and Indiana populations of the beetle Cucujus clavipes (Fabricius): roles of antifreeze proteins, polyols, dehydration and diapause. Journal of Experimental Biology, 2005, 208, 4467-4477.	0.8	75
20	Seasonal reproductive tactics: annual timing and the capital-to-income breeder continuum. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20160250.	1.8	72
21	Androgen in free-living arctic ground squirrels: seasonal changes and influence of staged male-male aggressive encounters. Hormones and Behavior, 2003, 43, 318-326.	1.0	69
22	Tissue-specific depression of mitochondrial proton leak and substrate oxidation in hibernating arctic ground squirrels. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2003, 284, R1306-R1313.	0.9	68
23	Wood frog adaptations to overwintering in Alaska: New limits to freezing tolerance. Journal of Experimental Biology, 2014, 217, 2193-200.	0.8	67
24	Detection of differential gene expression in brown adipose tissue of hibernating arctic ground squirrels with mouse microarrays. Physiological Genomics, 2006, 25, 346-353.	1.0	65
25	A thermal hysteresis-producing xylomannan glycolipid antifreeze associated with cold tolerance is found in diverse taxa. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2011, 181, 631-640.	0.7	60
26	Daily body temperature rhythms persist under the midnight sun but are absent during hibernation in free-living arctic ground squirrels. Biology Letters, 2012, 8, 31-34.	1.0	60
27	Thermoregulation and energetics in hibernating black bears: metabolic rate and the mystery of multi-day body temperature cycles. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2015, 185, 447-461.	0.7	59
28	Plasma Androgen and Gonadotropin Levels during Hibernation and Testicular Maturation in Golden-Mantled Ground Squirrels1. Biology of Reproduction, 1988, 38, 616-622.	1.2	56
29	Molecular signatures of mammalian hibernation: comparisons with alternative phenotypes. BMC Genomics, 2013, 14, 567.	1.2	56
30	Thermoregulatory changes anticipate hibernation onset by 45Âdays: data from free-living arctic ground squirrels. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2012, 182, 841-847.	0.7	52
31	Differential regulation of uncoupling protein gene homologues in multiple tissues of hibernating ground squirrels. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 1998, 275, R1232-R1238.	0.9	48
32	Comparative functional genomics of adaptation to muscular disuse in hibernating mammals. Molecular Ecology, 2014, 23, 5524-5537.	2.0	48
33	Hibernation and Circadian Rhythms of Body Temperature in Free-Living Arctic Ground Squirrels. Physiological and Biochemical Zoology, 2012, 85, 397-404.	0.6	46
34	A test of alternate models for increased tissue nitrogen isotope ratios during fasting in hibernating arctic ground squirrels. Journal of Experimental Biology, 2012, 215, 3354-61.	0.8	46
35	Regulation of UCP1 and UCP3 in arctic ground squirrels and relation with mitochondrial proton leak. Journal of Applied Physiology, 2006, 101, 339-347.	1.2	43
36	Light loggers reveal weather-driven changes in the daily activity patterns of arboreal and semifossorial rodents. Journal of Mammalogy, 2014, 95, 1230-1239.	0.6	43

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37	Dietary Fatty Acid Composition and the Hibernation Patterns in Freeâ€Ranging Arctic Ground Squirrels. Physiological and Biochemical Zoology, 2008, 81, 486-495.	0.6	42
38	Freeze tolerance in an arctic Alaska stonefly. Journal of Experimental Biology, 2009, 212, 305-312.	0.8	42
39	Influence of energy stores on activation of reproductive function in male golden-mantled ground squirrels. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 1984, 154, 421-425.	0.7	41
40	Data logging of body temperatures provides precise information on phenology of reproductive events in a free-living arctic hibernator. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2011, 181, 1101-1109.	0.7	41
41	Genomic analysis of miRNAs in an extreme mammalian hibernator, the Arctic ground squirrel. Physiological Genomics, 2010, 42A, 39-51.	1.0	40
42	Annual cycles of gonadotropins and androgens in the hibernating golden-mantled ground squirrel. General and Comparative Endocrinology, 1986, 62, 13-22.	0.8	39
43	Antifreeze and ice-nucleator proteins. , 2010, , 59-90.		38
44	Sex-Dependent Phenological Plasticity in an Arctic Hibernator. American Naturalist, 2017, 190, 854-859.	1.0	36
45	Integrating physiology, behavior, and energetics: Biologging in a free-living arctic hibernator. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2016, 202, 53-62.	0.8	35
46	Hibernating above the permafrost: effects of ambient temperature and season on expression of metabolic genes in liver and brown adipose tissue of arctic ground squirrels. Journal of Experimental Biology, 2011, 214, 1300-1306.	0.8	34
47	Changing seasonality and phenological responses of free-living male arctic ground squirrels: the importance of sex. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20120480.	1.8	34
48	Persistence, Entrainment, and Function of Circadian Rhythms in Polar Vertebrates. Physiology, 2015, 30, 86-96.	1.6	33
49	Clock Gene Expression in the Suprachiasmatic Nucleus of Hibernating Arctic Ground Squirrels. Journal of Biological Rhythms, 2017, 32, 246-256.	1.4	33
50	Temperature dependence of in vitro androgen production in testes from hibernating ground squirrels, Spermophilus lateralis. Canadian Journal of Zoology, 1987, 65, 3020-3023.	0.4	32
51	Leptin Prevents Posthibernation Weight Gain But Does Not Reduce Energy Expenditure in Arctic Ground Squirrels. Comparative Biochemistry and Physiology C, Comparative Pharmacology and Toxicology, 1997, 118, 405-412.	0.5	31
52	Elucidating the Biochemical Overwintering Adaptations of Larval Cucujus clavipes puniceus, a Nonmodel Organism, via High Throughput Proteomics. Journal of Proteome Research, 2011, 10, 4634-4646.	1.8	29
53	Organ Protective Mechanisms Common to Extremes of Physiology: A Window through Hibernation Biology. Integrative and Comparative Biology, 2014, 54, 497-515.	0.9	29
54	Simultaneous Collection of Body Temperature and Activity Data in Burrowing Mammals: a New Technique. Journal of Wildlife Management, 2007, 71, 1375-1379.	0.7	27

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55	Preservation of bone mass and structure in hibernating black bears (Ursus americanus) through elevated expression of anabolic genes. Functional and Integrative Genomics, 2012, 12, 357-365.	1.4	27
56	The secret life of ground squirrels: accelerometry reveals sex-dependent plasticity in above-ground activity. Royal Society Open Science, 2016, 3, 160404.	1.1	27
57	Effect of Winter High Temperatures on Reproduction and Circannual Rhythms in Hibernating Ground Squirrels. Journal of Biological Rhythms, 1990, 5, 119-130.	1.4	26
58	Proteomic Profiling Reveals Adaptive Responses to Surgical Myocardial Ischemiaâ€“Reperfusion in Hibernating Arctic Ground Squirrels Compared to Rats. Anesthesiology, 2016, 124, 1296-1310.	1.3	26
59	MICROSTRUCTURE OF SUMMER ACTIVITY BOUTS OF DEGUS IN A THERMALLY HETEROGENEOUS HABITAT. Journal of Mammalogy, 2004, 85, 260-267.	0.6	23
60	Energy regulation in context: Free-living female arctic ground squirrels modulate the relationship between thyroid hormones and activity among life history stages. Hormones and Behavior, 2015, 75, 111-119.	1.0	23
61	Circannual rhythmicity in the hibernating ground squirrel Citellus lateralis under constant light and hyperthermic ambient temperature. Comparative Biochemistry and Physiology A, Comparative Physiology, 1978, 61, 599-603.	0.7	20
62	PHF-like tau phosphorylation in mammalian hibernation is not associated with p25-formation. Journal of Neural Transmission, 2009, 116, 345-350.	1.4	18
63	Investigating the deep supercooling ability of an Alaskan beetle, Cucujus clavipes puniceus, via high throughput proteomics. Journal of Proteomics, 2012, 75, 1220-1234.	1.2	18
64	Seasonal loss and resumption of circadian rhythms in hibernating arctic ground squirrels. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2017, 187, 693-703.	0.7	18
65	Genomic analysis of expressed sequence tags in American black bear Ursus americanus. BMC Genomics, 2010, 11, 201.	1.2	16
66	Entraining to the polar day: circadian rhythms in arctic ground squirrels. Journal of Experimental Biology, 2017, 220, 3095-3102.	0.8	16
67	Overwintering in Yellowjacket Queens (Vespula vulgaris) and Green Stinkbugs (Elasmostethus) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.5	16
68	Arctic Ground Squirrels Limit Bone Loss during the Prolonged Physical Inactivity Associated with Hibernation. Physiological and Biochemical Zoology, 2016, 89, 72-80.	0.6	15
69	Coping with differences in snow cover: the impact on the condition, physiology and fitness of an arctic hibernator. , 2017, 5, cox065.		15
70	Late Pleistocene paleoecology of arctic ground squirrel (Urocitellus parryii) caches and nests from Interior Alaska's mammoth steppe ecosystem, USA. Quaternary Research, 2011, 76, 373-382.	1.0	13
71	Interrelationships Among Timing of Hibernation, Reproduction, and Warming Soil in Free-Living Female Arctic Ground Squirrels. , 2012, , 63-72.		13
72	Seasonal body composition, water turnover, and field metabolic rates in porcupines (Erethizon) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	0.6	11

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73	Stable Isotopes and Radiocarbon Assess Variable Importance of Plants and Fungi in Diets of Arctic Ground Squirrels. Arctic, Antarctic, and Alpine Research, 2017, 49, 487-500.	0.4	11
74	Transcriptional changes in muscle of hibernating arctic ground squirrels (Urocitellus parryii): implications for attenuation of disuse muscle atrophy. Scientific Reports, 2020, 10, 9010.	1.6	11
75	Plasticity and repeatability of activity patterns in free-living Arctic ground squirrels. Animal Behaviour, 2020, 169, 81-91.	0.8	10
76	Hibernation strategies and patterns in sympatric arctic species, the Alaska marmot and the arctic ground squirrel. Journal of Mammalogy, 2016, 97, 135-144.	0.6	9
77	Autumn conditions as a driver of spring phenology in a free-living arctic mammal. Climate Change Responses, 2015, 2, .	2.6	8
78	Hypothalamic remodeling of thyroid hormone signaling during hibernation in the arctic ground squirrel. Communications Biology, 2022, 5, .	2.0	8
79	Cryoprotectant Production in Freeze-Tolerant Wood Frogs Is Augmented by Multiple Freeze-Thaw Cycles. Physiological and Biochemical Zoology, 2016, 89, 340-346.	0.6	7
80	Lipid emulsion enhances cardiac performance after ischemiaâ€“reperfusion in isolated hearts from summer-active arctic ground squirrels. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2017, 187, 715-724.	0.7	7
81	mRNA Stability and Polysome Loss in Hibernating Arctic Ground Squirrels (Spermophilus parryii). Molecular and Cellular Biology, 2000, 20, 6374-6379.	1.1	7
82	Differential temporal behavior between males and females in the hibernating ground squirrel, Citellus lateralis. Comparative Biochemistry and Physiology A, Comparative Physiology, 1979, 64, 593-596.	0.7	6
83	Estimating lean mass over a wide range of body composition: a calibration of deuterium dilution in the arctic ground squirrel. Rapid Communications in Mass Spectrometry, 2011, 25, 3491-3496.	0.7	6
84	Tissue-specific telomere dynamics in hibernating arctic ground squirrels (Urocitellus parryii). Journal of Experimental Biology, 2019, 222, .	0.8	6
85	Thermal adaptations to extreme freezeâ€“thaw cycles in the high tropical Andes. Biotropica, 2021, 53, 296-306.	0.8	6
86	Transcriptional changes and preservation of bone mass in hibernating black bears. Scientific Reports, 2021, 11, 8281.	1.6	5
87	Stable isotope analysis of CO2 in breath indicates metabolic fuel shifts in torpid arctic ground squirrels. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2017, 209, 10-15.	0.8	4
88	Environmental heterogeneity affects seasonal variation in thyroid hormone physiology of free-living arctic ground squirrels (Urocitellus parryii). Canadian Journal of Zoology, 2019, 97, 783-790.	0.4	4
89	Survival estimates of free-living arctic ground squirrels: effects of sex and biologging. Canadian Journal of Zoology, 0, , .	0.4	2
90	Effects of Spring Warming on Seasonal Neuroendocrinology and Activation of the Reproductive Axis in Hibernating Arctic Ground Squirrels. Integrative and Comparative Biology, 2022, 62, 1012-1021.	0.9	2

#	Article	IF	Citations
91	Abstract 18884: Proteomic Profiling Reveals Reduction in Electron Transport Chain Proteins in the Hearts of Hibernating Arctic Ground Squirrels Compared with Rats after Surgical Ischemia and Reperfusion: A Convergence of Mammalian Cardio-protective Strategies. Circulation, 2014, 130, .	1.6	0