Spencer T Behmer

List of Publications by Year
in descending order

81 papers	4,584 citations	126907 33 h-index	106344 65 g-index
85 all docs	85 docs citations	85 times ranked	3699 citing authors

#	Article	IF	Citations
1	Omnivory in predatory lady beetles is widespread and driven by an appetite for sterols. Functional Ecology, 2022, 36, 458-470.	3.6	4
2	Effect of queen number on colony-level nutrient regulation, food collection and performance in two polygynous ant species. Journal of Insect Physiology, 2022, 138, 104365.	2.0	1
3	Quantity versus quality: Effects of diet protein-carbohydrate ratios and amounts on insect herbivore gene expression. Insect Biochemistry and Molecular Biology, 2022, 145, 103773.	2.7	3
4	Assessing pollen nutrient content: a unifying approach for the study of bee nutritional ecology. Philosophical Transactions of the Royal Society B: Biological Sciences, 2022, 377, 20210510.	4.0	21
5	Proteinâ€“carbohydrate regulation and nutritionally mediated responses to Bt are affected by caterpillar population history. Pest Management Science, 2021, 77, 335-342.	3.4	1
6	Predator Performance and Fitness Is Dictated by Herbivore Prey Type Plus Indirect Effects of their Host Plant. Journal of Chemical Ecology, 2021, 47, 877-888.	1.8	4
7	Insect Sterol Nutrition: Physiological Mechanisms, Ecology, and Applications. Annual Review of Entomology, 2020, 65, 251-271.	11.8	61
8	Herbivory improves the fitness of predatory beetles. Journal of Animal Ecology, 2020, 89, 2473-2484.	2.8	6
9	Editorial overview: Molecular physiology of the multifunctional insect gut. Current Opinion in Insect Science, 2020, 41, iv.	4.4	0
10	Aphid growth and reproduction on plants with altered sterol profiles: Novel insights using Arabidopsis mutant and overexpression lines. Journal of Insect Physiology, 2020, 123, 104054.	2.0	8
11	Prey nutrient content creates omnivores out of predators. Ecology Letters, 2019, 22, 275-283.	6.4	32
12	Investigation of mechanical properties of tibia and femur articulations of insect joints with different joint functions. MRS Communications, 2019, 9, 900-903.	1.8	3
13	First evidence of protein-carbohydrate regulation in a plant bug (Lygus hesperus). Journal of Insect Physiology, 2019, 116, 118-124.	2.0	6
14	Protein-carbohydrate regulation in Helicoverpa amigera and H. punctigera and how diet protein-carbohydrate content affects insect susceptibility to Bt toxins. Journal of Insect Physiology, 2018, 106, 88-95.	2.0	9
15	Long-Chain n-3 Fatty Acids Attenuate Oncogenic KRas-Driven Proliferation by Altering Plasma Membrane Nanoscale Proteolipid Composition. Cancer Research, 2018, 78, 3899-3912.	0.9	29
16	Quantifying Plant Soluble Protein and Digestible Carbohydrate Content, Using Corn (<em>Zea) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.3	17
17	Nutrition affects insect susceptibility to Bt toxins. Scientific Reports, 2017, 7, 39705.	3.3	45
18	Overturning dogma: tolerance of insects to mixed-sterol diets is not universal. Current Opinion in Insect Science, 2017, 23, 89-95.	4.4	26

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19	Structural, tribological, and mechanical properties of the hind leg joint of a jumping insect: Using katydids to inform bioinspired lubrication systems. Acta Biomaterialia, 2017, 62, 284-292.	8.3	23
20	Metabolic rate is canalized in the face of variable life history and nutritional environment. Functional Ecology, 2016, 30, 922-931.	3.6	16
21	Lipogenesis in a wing-polymorphic cricket: Canalization versus morph-specific plasticity as a function of nutritional heterogeneity. Journal of Insect Physiology, 2016, 95, 118-132.	2.0	5
22	Spatio-Temporal, Genotypic, and Environmental Effects on Plant Soluble Protein and Digestible Carbohydrate Content: Implications for Insect Herbivores with Cotton as an Exemplar. Journal of Chemical Ecology, 2016, 42, 1151-1163.	1.8	29
23	Nutrition as a neglected factor in insect herbivore susceptibility to Bt toxins. Current Opinion in Insect Science, 2016, 15, 97-103.	4.4	30
24	Summer and fall ants have different physiological responses to food macronutrient content. Journal of Insect Physiology, 2016, 87, 35-44.	2.0	24
25	Nutritional physiology of life history trade-offs: how food protein-carbohydrate content influences life-history traits in the wing-polymorphic cricket<i>Gryllus firmus</i>. Journal of Experimental Biology, 2015, 218, 298-308.	1.7	40
26	Water stress in grasslands: dynamic responses of plants and insect herbivores. Oikos, 2015, 124, 381-390.	2.7	62
27	Revisiting macronutrient regulation in the polyphagous herbivore Helicoverpa zea (Lepidoptera:) Tj ETQq1 1 0.784314 rgBT /Overlock	2.0	35
28	The importance of dissolved N:P ratios on mayfly (Baetis spp.) growth in high-nutrient detritus-based streams. Hydrobiologia, 2015, 742, 15-26.	2.0	5
29	Physiological Status Drives Metabolic Rate in Mediterranean Geckos Infected with Pentastomes. PLoS ONE, 2015, 10, e0144477.	2.5	13
30	A Dietary Test of Putative Deleterious Sterols for the Aphid Myzus persicae. PLoS ONE, 2014, 9, e86256.	2.5	14
31	Lifetime consequences of food proteinâ€carbohydrate content for an insect herbivore. Functional Ecology, 2014, 28, 1135-1143.	3.6	89
32	Effects of Protein and Carbohydrate on an Insect Herbivore: The Vista from a Fitness Landscape. Integrative and Comparative Biology, 2014, 54, 942-954.	2.0	78
33	Diet micronutrient balance matters: How the ratio of dietary sterols/steroids affects development, growth and reproduction in two lepidopteran insects. Journal of Insect Physiology, 2014, 67, 85-96.	2.0	26
34	Microbial Symbionts Shape the Sterol Profile of the Xylem-Feeding Woodwasp, Sirex noctilio. Journal of Chemical Ecology, 2013, 39, 129-139.	1.8	47
35	Sterol/steroid metabolism and absorption in a generalist and specialist caterpillar: Effects of dietary sterol/steroid structure, mixture and ratio. Insect Biochemistry and Molecular Biology, 2013, 43, 580-587.	2.7	39
36	Plant phloem sterol content: forms, putative functions, and implications for phloem-feeding insects. Frontiers in Plant Science, 2013, 4, 370.	3.6	39

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37	Nutrient regulation strategies differ between cricket morphs that tradeâ€off dispersal and reproduction. Functional Ecology, 2013, 27, 1126-1133.	3.6	27
38	Not just the usual suspects: Insect herbivore populations and communities are associated with multiple plant nutrients. Ecology, 2012, 93, 1002-1015.	3.2	130
39	The physiology of sterol nutrition in the pea aphid Acyrthosiphon pisum. Journal of Insect Physiology, 2012, 58, 1383-1389.	2.0	32
40	Dietary sterols/steroids and the generalist caterpillar Helicoverpa zea: Physiology, biochemistry and midgut gene expression. Insect Biochemistry and Molecular Biology, 2012, 42, 835-845.	2.7	33
41	Plant sterols and host plant suitability for generalist and specialist caterpillars. Journal of Insect Physiology, 2012, 58, 235-244.	2.0	24
42	Macronutrient regulation in the Rasberry crazy ant (Nylanderia sp. nr. pubens). Insectes Sociaux, 2012, 59, 93-100.	1.2	14
43	Effects of diet quality on performance and nutrient regulation in an omnivorous katydid. Ecological Entomology, 2011, 36, 471-479.	2.2	17
44	Seasonality Directs Contrasting Food Collection Behavior and Nutrient Regulation Strategies in Ants. PLoS ONE, 2011, 6, e25407.	2.5	34
45	Plant sterols and host plant suitability for a phloem-feeding insect. Functional Ecology, 2011, 25, 484-491.	3.6	47
46	Stability of AtVSP in the insect digestive canal determines its defensive capability. Journal of Insect Physiology, 2011, 57, 391-399.	2.0	7
47	Colony-level macronutrient regulation in ants: mechanisms, hoarding and associated costs. Animal Behaviour, 2010, 79, 429-437.	1.9	100
48	Macronutrient Regulation in the Tropical Terrestrial Ant <i>Ectatomma ruidum</i> (Formicidae): A Field Study in Costa Rica. Biotropica, 2010, 42, 135-139.	1.6	28
49	Evaluation of a Microbial Inhibitor in Artificial Diets of a Generalist Caterpillar,<i>Heliothis virescens</i>. Journal of Insect Science, 2010, 10, 1-12.	1.5	11
50	Animal Behaviour: Feeding the Superorganism. Current Biology, 2009, 19, R366-R368.	3.9	27
51	Same Host-Plant, Different Sterols: Variation in Sterol Metabolism in an Insect Herbivore Community. Journal of Chemical Ecology, 2009, 35, 1309-1319.	1.8	47
52	Three hundred and fifty generations of extreme food specialisation: testing predictions of nutritional ecology. Entomologia Experimentalis Et Applicata, 2009, 132, 65-75.	1.4	40
53	Insect Herbivore Nutrient Regulation. Annual Review of Entomology, 2009, 54, 165-187.	11.8	640
54	The relationship between body mass and elemental composition in nymphs of the grasshopper Schistocerca americana. Journal of Orthoptera Research, 2008, 17, 307-313.	1.0	21

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55	Coexisting generalist herbivores occupy unique nutritional feeding niches. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1977-1982.	7.1	204
56	State-Dependent Learned Valuation Drives Choice in an Invertebrate. Science, 2006, 311, 1613-1615.	12.6	141
57	Evolving resistance to obesity in an insect. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 14045-14049.	7.1	128
58	Nutrient regulation in relation to diet breadth: a comparison of Heliothis sister species and a hybrid. Journal of Experimental Biology, 2006, 209, 2076-2084.	1.7	64
59	Metal hyperaccumulation in plants: mechanisms of defence against insect herbivores. Functional Ecology, 2005, 19, 55-66.	3.6	113
60	Variable rewards and discrimination ability in an insect herbivore: what and how does a hungry locust learn?. Journal of Experimental Biology, 2005, 208, 3463-3473.	1.7	28
61	Behavioural correlates of phenotypic plasticity in mouthpart chemoreceptor numbers in locusts. Journal of Insect Physiology, 2004, 50, 725-736.	2.0	22
62	Optimal foraging when regulating intake of multiple nutrients. Animal Behaviour, 2004, 68, 1299-1311.	1.9	480
63	Insect Dietary Needs: Plants as Food for Insects. , 2004, , 1-4.		0
64	Food distance and its effect on nutrient balancing in a mobile insect herbivore. Animal Behaviour, 2003, 66, 665-675.	1.9	49
65	A correlation between macronutrient balancing and insect host-plant range: evidence from the specialist caterpillar Spodoptera exempta (Walker). Journal of Insect Physiology, 2003, 49, 1161-1171.	2.0	90
66	Insect Sterol Nutrition and Physiology: A Global Overview. Advances in Insect Physiology, 2003, 31, 1-72.	2.7	206
67	HERBIVORE FORAGING IN CHEMICALLY HETEROGENEOUS ENVIRONMENTS: NUTRIENTS AND SECONDARY METABOLITES. Ecology, 2002, 83, 2489-2501.	3.2	143
68	A geometric analysis of nutrient regulation in the generalist caterpillar Spodoptera littoralis (Boisduval). Journal of Insect Physiology, 2002, 48, 655-665.	2.0	149
69	Food mixing strategies in the desert locust: effects of phase, distance between foods, and food nutrient content. Entomologia Experimentalis Et Applicata, 2002, 103, 227-237.	1.4	16
70	HERBIVORE FORAGING IN CHEMICALLY HETEROGENEOUS ENVIRONMENTS: NUTRIENTS AND SECONDARY METABOLITES. , 2002, 83, 2489.		1
71	Frequency-dependent food selection in locusts: a geometric analysis of the role of nutrient balancing. Animal Behaviour, 2001, 61, 995-1005.	1.9	65
72	Sterol Metabolic Constraints as a Factor Contributing to the Maintenance of Diet Mixing in Grasshoppers (Orthoptera: Acrididae). Physiological and Biochemical Zoology, 2000, 73, 219-230.	1.5	39

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73	Effects of Diet on Titratable Acidâ€Base Excretion in Grasshoppers. Physiological and Biochemical Zoology, 2000, 73, 66-76.	1.5	5
74	Phytosterol structure and its impact on feeding behaviour in the generalist grasshopperSchistocerca americana. Physiological Entomology, 1999, 24, 18-27.	1.5	22
75	The nutritional significance of sterol metabolic constraints in the generalist grasshopper Schistocerca americana. Journal of Insect Physiology, 1999, 45, 339-348.	2.0	45
76	Phytosterol metabolism and absorption in the generalist grasshopper,Schistocerca americana (Orthoptera: Acrididae). Archives of Insect Biochemistry and Physiology, 1999, 42, 13-25.	1.5	29
77	Impact of dietary sterols on life-history traits of a caterpillar. Physiological Entomology, 1998, 23, 165-175.	1.5	45
78	Impact of diet quality on demographic attributes in adult grasshoppers and the nitrogen limitation hypothesis. Ecological Entomology, 1998, 23, 174-184.	2.2	93
79	Importance of dietary nitrogen and carbohydrates to survival, growth, and reproduction in adults of the grasshopper Ageneotettix deorum (Orthoptera: Acrididae). Oecologia, 1997, 112, 201-208.	2.0	148
80	Foraging by generalist grasshoppers: two different strategies. Animal Behaviour, 1996, 52, 155-165.	1.9	38
81	The influence of proline on diet selection: sex-specific feeding preferences by the grasshoppers Ageneotettix deorum and Phoetaliotes nebrascensis (Orthoptera: Acrididae). Oecologia, 1994, 98, 76-82.	2.0	29