Jack C Schultz

List of Publications by Year
in descending order

94 papers	7,527 citations	57719 44 h-index	56687 83 g-index
102 all docs	102 docs citations	102 times ranked	6465 citing authors

#	Article	IF	Citations
1	Rapid Changes in Tree Leaf Chemistry Induced by Damage: Evidence for Communication Between Plants. Science, 1983, 221, 277-279.	6.0	507
2	Oak Leaf Quality Declines in Response to Defoliation by Gypsy Moth Larvae. Science, 1982, 217, 149-151.	6.0	438
3	THE GROWTHâ€"DEFENSE TRADE-OFF AND HABITAT SPECIALIZATION BY PLANTS IN AMAZONIAN FORESTS. Ecology, 2006, 87, S150-S162.	1.5	404
4	Major Signaling Pathways Modulate Arabidopsis Glucosinolate Accumulation and Response to Both Phloem-Feeding and Chewing Insects. Plant Physiology, 2005, 138, 1149-1162.	2.3	387
5	Nitrogen cycling in a northern hardwood forest: Do species matter?. Biogeochemistry, 2004, 67, 289-308.	1.7	348
6	Within-plant signalling via volatiles overcomes vascular constraints on systemic signalling and primes responses against herbivores. Ecology Letters, 2007, 10, 490-498.	3.0	333
7	Growth Responses of Tropical Shrubs to Treefall Gap Environments. Ecology, 1990, 71, 165-179.	1.5	301
8	Relationships among Defoliation, Red Oak Phenolics, and Gypsy Moth Growth and Reproduction. Ecology, 1988, 69, 267-277.	1.5	252
9	Gene expression and glucosinolate accumulation in Arabidopsis thaliana in response to generalist and specialist herbivores of different feeding guilds and the role of defense signaling pathways. Phytochemistry, 2006, 67, 2450-2462.	1.4	248
10	Habitat Selection and Foraging Tactics of Caterpillars in Heterogeneous Trees. , 1983, , 61-90.		157
11	Overexpression of CRK13, an Arabidopsis cysteine-rich receptor-like kinase, results in enhanced resistance to Pseudomonas syringae. Plant Journal, 2007, 50, 488-499.	2.8	151
12	Flexible resource allocation during plant defense responses. Frontiers in Plant Science, 2013, 4, 324.	1.7	147
13	Fitness costs of jasmonic acid-induced defense in tomato, Lycopersicon esculentum. Oecologia, 2001, 126, 380-385.	0.9	140
14	Many Factors Influence the Evolution of Herbivore Diets, But Plant Chemistry is Central. Ecology, 1988, 69, 896-897.	1.5	134
15	Induced plant defenses breached? Phytochemical induction protects an herbivore from disease. Oecologia, 1993, 94, 195-203.	0.9	133
16	Limitations of Folin assays of foliar phenolics in ecological studies. Journal of Chemical Ecology, 2001, 27, 761-778.	0.9	133
17	Induced sink strength as a prerequisite for induced tannin biosynthesis in developing leaves of Populus. Oecologia, 2002, 130, 585-593.	0.9	126
18	Carbohydrate translocation determines the phenolic content of Populus foliage: a test of the sinkâ€"source model of plant defense. New Phytologist, 2004, 164, 157-164.	3.5	118

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19	SEASONAL AND INDIVIDUAL VARIATION IN LEAF QUALITY OF TWO NORTHERN HARDWOODS TREE SPECIES. American Journal of Botany, 1982, 69, 753-759.	0.8	116
20	ArabidopsisGH3-LIKE DEFENSE GENEâ€ƒ1is required for accumulation of salicylic acid, activation of defense responses and resistance toPseudomonas syringae. Plant Journal, 2007, 51, 234-246.	2.8	112
21	Insect Elicitors and Exposure to Green Leafy Volatiles Differentially Upregulate Major Octadecanoids and Transcripts of 12-Oxo Phytodienoic Acid Reductases in Zea mays. Molecular Plant-Microbe Interactions, 2007, 20, 707-716.	1.4	111
22	Relationship Between Susceptibility of Gypsy Moth Larvae (Lepidoptera: Lymantriidae) to a Baculovirus and Host Plant Foliage Constituents. Environmental Entomology, 1988, 17, 952-958.	0.7	107
23	Hostplant, larval age, and feeding behavior influence midgut pH in the gypsy moth (Lymantria dispar). Oecologia, 1986, 71, 133-137.	0.9	102
24	Bioassays of nutrient limitation in a tropical rain forest soil. Oecologia, 1987, 74, 370-376.	0.9	99
25	Plant responses induced by herbivores. Trends in Ecology and Evolution, 1988, 3, 45-49.	4.2	99
26	Fertilization Mitigates Chemical Induction and Herbivore Responses Within Damaged Oak Trees. Ecology, 1995, 76, 1226-1232.	1.5	95
27	BIOCHEMICAL RESPONSES OF CHESTNUT OAK TO A GALLING CYNIPID. Journal of Chemical Ecology, 2005, 31, 151-166.	0.9	86
28	Chemical defense production in Lotus corniculatus L. II. Trade-offs among growth, reproduction and defense. Oecologia, 1990, 83, 32-37.	0.9	80
29	Impact of Variable Plant Defensive Chemistry on Susceptibility of Insects to Natural Enemies. ACS Symposium Series, 1983, , 37-54.	0.5	79
30	Differential Activity of Peroxidase Isozymes in Response to Wounding, Gypsy Moth, and Plant Hormones in Northern Red Oak (Quercus rubra L.). Journal of Chemical Ecology, 2004, 30, 1363-1379.	0.9	76
31	Hemoglobin as a binding substrate in the quantitative analysis of plant tannins. Journal of Agricultural and Food Chemistry, 1981, 29, 823-826.	2.4	75
32	Shield Defense of a Larval Tortoise Beetle. Journal of Chemical Ecology, 1999, 25, 549-566.	0.9	71
33	Leaf Toughness Affects Leaf Harvesting by the Leaf Cutter Ant, Atta cephalotes (L.) (Hymenoptera:) Tj ETQq1 1 0.784314 rgBT /Overlo	0.8	69
34	Interactions among leaf toughness, chemistry, and harvesting by attine ants. Ecological Entomology, 1990, 15, 311-320.	1.1	68
35	Tannin-Insect Interactions. , 1989, , 417-433.		64
36	Transcriptional responses of Arabidopsis thaliana to chewing and sucking insect herbivores. Frontiers in Plant Science, 2014, 5, 565.	1.7	61

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37	Leaf phenolic inhibition of gypsy moth nuclear polyhedrosis virus Role of polyhedral inclusion body aggregation. Journal of Chemical Ecology, 1990, 16, 1445-1457.	0.9	60
38	Patterns and sources of leaf tannin variation in yellow birch (Betula allegheniensis) and sugar maple (Acer saccharum). Journal of Chemical Ecology, 1987, 13, 1069-1078.	0.9	59
39	Roles for jasmonate- and ethylene-induced transcription factors in the ability of Arabidopsis to respond differentially to damage caused by two insect herbivores. Frontiers in Plant Science, 2014, 5, 407.	1.7	56
40	Temporal Changes in Allocation and Partitioning of New Carbon as 11C Elicited by Simulated Herbivory Suggest that Roots Shape Aboveground Responses in Arabidopsis Â Â. Plant Physiology, 2013, 161, 692-704.	2.3	55
41	Oak Tannins Reduce Effectiveness of Thuricide (Bacillus thuringiensis) in the Gypsy Moth (Lepidoptera:) Tj ETQq1 1 0.784314 rgBT /Ove	0.8	54
42	A galling insect activates plant reproductive programs during gall development. Scientific Reports, 2019, 9, 1833.	1.6	54
43	Exploring Cost Constraints on Stem Elongation in Plants Using Phenotypic Manipulation. American Naturalist, 1999, 153, 236-242.	1.0	50
44	Shared weapons of blood- and plant-feeding insects: Surprising commonalities for manipulating hosts. Journal of Insect Physiology, 2016, 84, 4-21.	0.9	50
45	SEASONAL AND INDIVIDUAL VARIATION IN LEAF QUALITY OF TWO NORTHERN HARDWOODS TREE SPECIES. , 1982, 69, 753.		50
46	Shared Signals and the Potential for Phylogenetic Espionage Between Plants and Animals. Integrative and Comparative Biology, 2002, 42, 454-462.	0.9	46
47	Reassessment of interaction between gut detergents and tannins in lepidoptera and significance for gypsy moth larvae. Journal of Chemical Ecology, 1992, 18, 1437-1453.	0.9	45
48	CROSS-KINGDOM CROSS-TALK: HORMONES SHARED BY PLANTS AND THEIR INSECT HERBIVORES. Ecology, 2004, 85, 70-77.	1.5	45
49	Modelling Gypsy Moth--Virus--Leaf Chemistry Interactions: Implications of Plant Quality for Pest and Pathogen Dynamics. Journal of Animal Ecology, 1992, 61, 509.	1.3	39
50	Enhanced Invertase Activities in the Galls of Hormaphis hamamelidis. Journal of Chemical Ecology, 2003, 29, 2703-2720.	0.9	36
51	Fertility, Root Reserves and the Cost of Inducible Defenses in the Perennial Plant Solanum carolinense. Journal of Chemical Ecology, 2005, 31, 2263-2288.	0.9	35
52	Biochemical ecology: How plants fight dirty. Nature, 2002, 416, 267-267.	13.7	32
53	Phylogeny and the patterns of leaf phenolics in gap-and forest-adapted Piper and Miconia understory shrubs. Oecologia, 1988, 75, 105-109.	0.9	31
54	Hormaphis hamamelidis and gall size: a test of the plant vigor hypothesis. Oikos, 2001, 95, 94-104.	1.2	30

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55	Impact of dietary allelochemicals on gypsy moth (Lymantria dispar) caterpillars: importance of midgut alkalinity. Journal of Insect Physiology, 1997, 43, 1169-1175.	0.9	29
56	Antimicrobial Activity of Polyphenols Mediates Plant-Herbivore Interactions. , 1992, , 621-637.		29
57	Novel application of 2-[18F]fluoro-2-deoxy-d-glucose to study plant defenses. Nuclear Medicine and Biology, 2012, 39, 1152-1160.	0.3	28
58	Caterpillar Chewing Vibrations Cause Changes in Plant Hormones and Volatile Emissions in Arabidopsis thaliana. Frontiers in Plant Science, 2019, 10, 810.	1.7	28
59	Decoding Science: Development and Evaluation of a Science Communication Training Program Using a Triangulated Framework. Science Communication, 2018, 40, 3-32.	1.8	25
60	Effects of jasmonic acid, branching and girdling on carbon and nitrogen transport in poplar. New Phytologist, 2012, 195, 419-426.	3.5	23
61	Multiple Defenses and Signals in Plant Defense against Pathogens and Herbivores. , 1996, , 121-154.		22
62	Mutagenicity tests with gallic and tannic acid in the<i>salmonella</i>/mammalian microsome assay. Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes, 1985, 20, 153-165.	0.7	20
63	Induced Plant Signaling and its Implications for Environmental Sensing. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2004, 67, 819-834.	1.1	19
64	Adaptive Two-Dimensional Microgas Chromatography. Analytical Chemistry, 2012, 84, 4214-4220.	3.2	19
65	Plant Vascular Architecture Determines the Pattern of Herbivore-Induced Systemic Responses in Arabidopsis thaliana. PLoS ONE, 2015, 10, e0123899.	1.1	18
66	Hormaphis hamamelidis Fundatrices Benefit by Manipulating Phenolic Metabolism of Their Host. Journal of Chemical Ecology, 2012, 38, 496-498.	0.9	17
67	A Scale to Measure Science Communication Training Effectiveness. Science Communication, 2020, 42, 90-111.	1.8	17
68	Ecological and Chemical Associations Among Late-Season Squash Pests. Environmental Entomology, 1998, 27, 39-44.	0.7	14
69	Heritable Phytohormone Profiles of Poplar Genotypes Vary in Resistance to a Galling Aphid. Molecular Plant-Microbe Interactions, 2019, 32, 654-672.	1.4	14
70	Measuring â€˜normalcyâ€™ in plant gene expression after herbivore attack. Molecular Ecology Resources, 2011, 11, 294-304.	2.2	13
71	Transcriptional and metabolic signatures of Arabidopsis responses to chewing damage by an insect herbivore and bacterial infection and the consequences of their interaction. Frontiers in Plant Science, 2014, 5, 441.	1.7	13
72	Tannins lost from sugar maple (Acer saccharum marsh) and yellow birch (Betula allegheniensis britt.) leaf litter. Soil Biology and Biochemistry, 1984, 16, 421-422.	4.2	12

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73	Variation in leaf quality of two oak species: implications for stand susceptibility to gypsy moth defoliation. Canadian Journal of Forest Research, 1989, 19, 1445-1450.	0.8	12
74	Fuzzy cluster analysis of bioinformatics data composed of microarray expression data and gene ontology annotations. , 2008, , .		12
75	Red oak responses to nitrogen addition depend on herbivory type, tree family, and site. Forest Ecology and Management, 2010, 259, 1930-1937.	1.4	12
76	Morphometric analysis of young petiole galls on the narrow-leaf cottonwood, Populus angustifolia, by the sugarbeet root aphid, Pemphigus betae. Protoplasma, 2017, 254, 203-216.	1.0	12
77	Factoring Natural Enemies into Plant Tissue Availability to Herbivores. , 1992, , 175-197.		12
78	Evaluation of Resistance to Tufted Apple Bud Moth (Lepidoptera: Tortricidae) Within and Among Apple Cultivars. Environmental Entomology, 1994, 23, 282-291.	0.7	11
79	The <scp>A</scp>rabidopsis immune regulator <scp><i>SRFR</i></scp><i>1</i> dampens defences against herbivory by <scp><i>S</i></scp><i>podoptera exigua</i> and parasitism by <scp><i>H</i></scp><i>eterodera schachtii</i>. Molecular Plant Pathology, 2016, 17, 588-600.	2.0	11
80	Activity of Phenolics in Insects: The Role of Oxidation. , 1992, , 609-620.		11
81	Is polyphenol induction simply a result of altered carbon and nitrogen accumulation?. Plant Signaling and Behavior, 2012, 7, 1498-1500.	1.2	9
82	Experientially learning how to communicate science effectively: A case study on decoding science. Journal of Research in Science Teaching, 2019, 56, 1135-1152.	2.0	7
83	Why do Cranberries reduce incidence of urinary tract infections?. Journal of Ethnopharmacology, 2002, 80, 211.	2.0	5
84	A tale of two tissues: Probing gene expression in a complex insectâ€induced gall. Molecular Ecology, 2022, , .	2.0	5
85	Once again, insects worked it out first. Nature, 2001, 414, 147-148.	13.7	4
86	Impact of chronic stylet-feeder infestation on folivore-induced signaling and defenses in a conifer. Tree Physiology, 2021, 41, 416-427.	1.4	2
87	Wind and trees. Trends in Ecology and Evolution, 1997, 12, 276-277.	4.2	1
88	A Diversity of Insect Responses to Host Plants. Ecology, 1984, 65, 671-672.	1.5	0
89	The General and Specific in Plant Defense Studies. Ecology, 1988, 69, 1640-1641.	1.5	0
90	Ecology of Forest Insects. Ecology, 1988, 69, 549-549.	1.5	0

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91	Ecology and Management of Forest Pests. Ecology, 1990, 71, 1634-1635.	1.5	0
92	How-to Book for Phenolics Lovers. Ecology, 1990, 71, 2030-2030.	1.5	0
93	Biology, Ecology, and Evolution of Gallâ€inducing Arthropods. Volumes 1 and 2. Edited by Anantanarayanan Raman, Carl W Schaefer, and , Toni M Withers. Enfield (New Hampshire): Science Publishers. $148.00 (twoâ€volume set). (1) xxi + 429 p; ill.; no index. (2) xxi + pp 431â€"817; ill.; index to Volumes 1 and 2. ISBN: 1â€57808â€262â€5 (set); 1â€57808â€345â€1 (Volume 1); 1â€57808â€346â€X (Volume 2). 2005.. Quarterly Review of Biology, 2007, 82, 59-60.	0.0	0
94	Preface. Journal of Insect Physiology, 2016, 84, 2-3.	0.9	0