M Deane Bowers

List of Publications by Year
in descending order

125 papers	6,153 citations	53794 45 h-index	82547 72 g-index
127 all docs	127 docs citations	127 times ranked	3762 citing authors

#	Article	IF	Citations
1	Gut microbes may facilitate insect herbivory of chemically defended plants. Oecologia, 2015, 179, 1-14.	2.0	232
2	The Effects of Enriched Carbon Dioxide Atmospheres on Plant--Insect Herbivore Interactions. Science, 1989, 243, 1198-1200.	12.6	231
3	The Effect of Nutrients and Enriched CO2Environments on Production of Carbon-Based Allelochemicals in Plantago: A Test of the Carbon/Nutrient Balance Hypothesis. American Naturalist, 1992, 140, 707-723.	2.1	200
4	Effects of Plant Age, Genotype and Herbivory on Plantago Performance and Chemistry. Ecology, 1993, 74, 1778-1791.	3.2	187
5	Response of generalist and specialist insects to qualitative allelochemical variation. Journal of Chemical Ecology, 1988, 14, 319-334.	1.8	181
6	Immunological cost of chemical defence and the evolution of herbivore diet breadth. Ecology Letters, 2009, 12, 612-621.	6.4	156
7	Pattern of Leaf Damage Affects Fitness of the Annual Plant Raphanus Sativus (Brassicaceae). Ecology, 1993, 74, 2066-2071.	3.2	139
8	Iridoid glycosides and host-plant specificity in larvae of the buckeye butterfly,Junonia coenia (Nymphalidae). Journal of Chemical Ecology, 1984, 10, 1567-1577.	1.8	126
9	Variation in Food Quality and Temperature Constrain Foraging of Gregarious Caterpillars. Ecology, 1990, 71, 1031-1039.	3.2	123
10	Chemical variation within and between individuals ofPlantago lanceolata (Plantaginaceae). Journal of Chemical Ecology, 1992, 18, 985-995.	1.8	123
11	Arbuscular mycorrhizal fungal species suppress inducible plant responses and alter defensive strategies following herbivory. Oecologia, 2009, 160, 771-779.	2.0	115
12	Genetic variation in defensive chemistry in Plantago lanceolata (Plantaginaceae) and its effect on the specialist herbivore Junonia coenia (Nymphalidae). Oecologia, 1995, 101, 75-85.	2.0	113
13	Fate of iridoid glycosides in different life stages of the Buckeye,Junonia coenia (Lepidoptera:) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	1.8	112
14	Fate of ingested iridoid glycosides in lepidopteran herbivores. Journal of Chemical Ecology, 1986, 12, 169-178.	1.8	108
15	Direct and indirect effects of predatory wasps (Polistes sp.: Vespidae) on gregarious caterpillars (Hemileuca lucina: Saturniidae). Oecologia, 1988, 75, 619-624.	2.0	108
16	The importance of sequestered iridoid glycosides as a defense against an ant predator. Journal of Chemical Ecology, 1996, 22, 1527-1539.	1.8	106
17	Elevation-Dependent Temperature Trends in the Rocky Mountain Front Range: Changes over a 56- and 20-Year Record. PLoS ONE, 2012, 7, e44370.	2.5	105
18	Early Stage of Host Range Expansion by a Specialist Herbivore, Euphydryas Phaeton (Nymphalidae). Ecology, 1992, 73, 526-536.	3.2	103

#	Article	IF	Citations
19	Iridoid Glycosides. , 1991, , 297-325.		101
20	The role of iridoid glycosides in host-plant specificity of checkerspot butterflies. Journal of Chemical Ecology, 1983, 9, 475-493.	1.8	93
21	Effect of qualitative and quantitative variation in allelochemicals on a generalist insect: Iridoid glycosides and the southern armyworm. Journal of Chemical Ecology, 1988, 14, 335-351.	1.8	90
22	Iridoid glycosides as oviposition stimulants for the buckeye butterfly,Junonia coenia (Nymphalidae). Journal of Chemical Ecology, 1988, 14, 917-928.	1.8	87
23	Effects of genotype, habitat, and seasonal variation on iridoid glycoside content of Plantago lanceolata (Plantaginaceae) and the implications for insect herbivores. Oecologia, 1992, 91, 201-207.	2.0	86
24	Soil nutrient effects on oviposition preference, larval performance, and chemical defense of a specialist insect herbivore. Oecologia, 2005, 143, 578-587.	2.0	84
25	UNPALATABILITY AS A DEFENSE STRATEGY OF<i>EUPHYDRYAS PHAETON</i>(LEPIDOPTERA: NYMPHALIDAE). Evolution; International Journal of Organic Evolution, 1980, 34, 586-600.	2.3	78
26	Title is missing!. Journal of Chemical Ecology, 1999, 25, 283-295.	1.8	77
27	Phenology of nutritional differences between new and mature leaves and its effect on caterpillar growth. Ecological Entomology, 1990, 15, 447-454.	2.2	72
28	Developmental change in aggregation, defense and escape behavior of buckmoth caterpillars, Hemileuca lucina (Saturniidae). Behavioral Ecology and Sociobiology, 1987, 20, 383-388.	1.4	70
29	Hostplant suitability and defensive chemistry of the Catalpa sphinx, Ceratomia catalpae. Journal of Chemical Ecology, 2003, 29, 2359-2367.	1.8	69
30	Patterns of Iridoid Glycoside Production and Induction in Plantago lanceolata and the Importance of Plant Age. Journal of Chemical Ecology, 2004, 30, 1723-1741.	1.8	69
31	Title is missing!. Journal of Chemical Ecology, 1999, 25, 1427-1440.	1.8	67
32	Nectar chemistry mediates the behavior of parasitized bees: consequences for plant fitness. Ecology, 2016, 97, 325-337.	3.2	65
33	The behaviour of grey jays, Perisoreus canadensis, towards palatable and unpalatable Lepidoptera. Animal Behaviour, 1990, 39, 699-705.	1.9	63
34	Synergistic Effects of Iridoid Glycosides on the Survival, Development and Immune Response of a Specialist Caterpillar, Junonia coenia (Nymphalidae). Journal of Chemical Ecology, 2012, 38, 1276-1284.	1.8	62
35	UNPALATABILITY AS A DEFENSE STRATEGY OF WESTERN CHECKERSPOT BUTTERFLIES (<i>EUPHYDRYAS</i>SCUDDER, NYMPHALIDAE). Evolution; International Journal of Organic Evolution, 1981, 35, 367-375.	2.3	60
36	Grasshopper Community Response to Climatic Change: Variation Along an Elevational Gradient. PLoS ONE, 2010, 5, e12977.	2.5	59

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37	Unpalatability as a Defense Strategy of Euphydryas phaeton (Lepidoptera: Nymphalidae). Evolution; International Journal of Organic Evolution, 1980, 34, 586.	2.3	57
38	Performance and allocation patterns of the perennial herb, Plantago lanceolata, in response to simulated herbivory and elevated CO2 environments. Oecologia, 1991, 87, 37-42.	2.0	56
39	Phenological and population variation in iridoid glycosides of Plantago lanceolata (Plantaginaceae). Biochemical Systematics and Ecology, 1997, 25, 1-11.	1.3	56
40	Iridoid glycosides and insect feeding preferences: gypsy moths (Lymantria dispar, Lymantriidae) and buckeyes (Junonia coenia, Nymphalidae). Ecological Entomology, 1989, 14, 247-256.	2.2	55
41	Indirect effect on survivorship of caterpillars due to presence of invertebrate predators. Oecologia, 1991, 88, 325-330.	2.0	55
42	Fate of Host-Plant Iridoid Glycosides in Lepidopteran Larvae of Nymphalidae and Arcthdae. Journal of Chemical Ecology, 1997, 23, 2955-2965.	1.8	54
43	BIRD PREDATION AS A SELECTIVE AGENT IN A BUTTERFLY POPULATION. Evolution; International Journal of Organic Evolution, 1985, 39, 93-103.	2.3	52
44	Acquired chemical defense in the lycaenid butterfly,Eumaeus atala. Journal of Chemical Ecology, 1989, 15, 1133-1146.	1.8	51
45	Effects of plant phenology, nutrients and herbivory on growth and defensive chemistry of plantain, Plantago lanceolata. Oikos, 2000, 88, 371-379.	2.7	49
46	Plant Induced Defenses Depend More on Plant Age than Previous History of Damage: Implications for Plant-Herbivore Interactions. Journal of Chemical Ecology, 2011, 37, 992-1001.	1.8	48
47	Neighbor species differentially alter resistance phenotypes in Plantago. Oecologia, 2006, 150, 442-452.	2.0	47
48	Presence of predatory wasps and stinkbugs alters foraging behavior of cryptic and non-cryptic caterpillars on plantain (Plantago lanceolata). Oecologia, 1993, 95, 376-384.	2.0	46
49	Chemical ecology of fruit defence: synergistic and antagonistic interactions among amides from <i><scp>P</scp>iper</i>. Functional Ecology, 2014, 28, 1094-1106.	3.6	46
50	Chemistry and Coevolution: Iridoid Glycosides, Plants, and Herbivorous Insects. , 1988, , 133-165.		45
51	Time is of the essence: direct and indirect effects of plant ontogenetic trajectories on higher trophic levels. Ecology, 2014, 95, 2589-2602.	3.2	45
52	Variable chemical defence in the checkerspot butterfly Euphydryas gillettii (Lepidoptera: Nymphalidae). Ecological Entomology, 1995, 20, 208-212.	2.2	44
53	Changes in plant chemical defenses and nutritional quality as a function of ontogeny in Plantago lanceolata (Plantaginaceae). Oecologia, 2012, 168, 471-481.	2.0	42
54	Evidence for the Adaptive Significance of Secondary Compounds in Vertebrate-Dispersed Fruits. American Naturalist, 2013, 182, 563-577.	2.1	42

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55	Iridoid Glycoside Variation in the Invasive Plant Dalmatian Toadflax, Linaria dalmatica (Plantaginaceae), and Sequestration by the Biological Control Agent, Calophasia lunula. Journal of Chemical Ecology, 2010, 36, 70-79.	1.8	40
56	Do caterpillars disperse their damage?: larval foraging behaviour of two specialist herbivores, Euphydryas phaeton (Nymphalidae) and Pieris rapae (Pieridae). Ecological Entomology, 1990, 15, 153-161.	2.2	38
57	Caterpillar Chemical Defense and Parasitoid Success: Cotesia congregata Parasitism of Ceratomia catalpae. Journal of Chemical Ecology, 2010, 36, 992-998.	1.8	38
58	Effects of Ingested Secondary Metabolites on the Immune Response of a Polyphagous Caterpillar Grammia incorrupta. Journal of Chemical Ecology, 2011, 37, 239-245.	1.8	38
59	Patterns of Phytochemical Variation in Mimulus guttatus (Yellow Monkeyflower). Journal of Chemical Ecology, 2013, 39, 525-536.	1.8	37
60	Iridoid glycosides of Aureolaria flava and their sequestration by Euphydryas phaeton butterflies. Phytochemistry, 1989, 28, 1601-1604.	2.9	36
61	Unpalatability as a Defense Strategy of Western Checkerspot Butterflies (Euphydryas scudder,) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.3	35
62	Effects of cages, plant age and mechanical clipping on plantain chemistry. Oecologia, 1994, 99, 66-71.	2.0	35
63	Factors affecting calculation of nutritional induces for foliageâ€fed insects: an experimental approach. Entomologia Experimentalis Et Applicata, 1991, 61, 101-116.	1.4	34
64	Patterns of Secondary Metabolite Allocation to Fruits and Seeds in Piper reticulatum. Journal of Chemical Ecology, 2013, 39, 1373-1384.	1.8	34
65	Host Plant Influences on Iridoid Glycoside Sequestration of Generalist and Specialist Caterpillars. Journal of Chemical Ecology, 2010, 36, 1101-1104.	1.8	33
66	Plant and herbivore ontogeny interact to shape the preference, performance and chemical defense of a specialist herbivore. Oecologia, 2018, 187, 401-412.	2.0	33
67	Leaf variation in iridoid glycoside content ofPlantago lanceolata (Plantaginaceae) and oviposition of the buckeye,Junonia coenia (Nymphalidae). Chemoecology, 1993, 4, 72-78.	1.1	31
68	Consequences for Plantain Chemistry and Growth When Herbivores are Attacked by Predators. Ecology, 1995, 77, 535-549.	3.2	31
69	Preference and performance of generalist and specialist herbivores on chemically defended host plants. Ecological Entomology, 2016, 41, 308-316.	2.2	31
70	Chemical tradeoffs in seed dispersal: defensive metabolites in fruits deter consumption by mutualist bats. Oikos, 2016, 125, 927-937.	2.7	31
71	Evolution of growth but not structural or chemical defense in Verbascum thapsus (common mullein) following introduction to North America. Biological Invasions, 2011, 13, 2379-2389.	2.4	27
72	The interplay between toxin-releasing Î²-glucosidase and plant iridoid glycosides impairs larval development in a generalist caterpillar, Grammia incorrupta (Arctiidae). Insect Biochemistry and Molecular Biology, 2012, 42, 426-434.	2.7	27

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73	Combining optimal defense theory and the evolutionary dilemma model to refine predictions regarding plant invasion. Ecology, 2012, 93, 1912-1921.	3.2	26
74	Enemy-Free Space for Parasitoids. Environmental Entomology, 2014, 43, 1465-1474.	1.4	26
75	The iridoid glycoside, catalpol, as a deterrent to the predatorCamponotus floridanus (Formicidae). Chemoecology, 1994, 5-6, 13-18.	1.1	25
76	Influence of iridoid glycoside containing host plants on midgut Î²-glucosidase activity in a polyphagous caterpillar, Spilosoma virginica Fabricius (Arctiidae). Journal of Insect Physiology, 2010, 56, 1907-1912.	2.0	25
77	Iridoid and secoiridoid glycosides in a hybrid complex of bush honeysuckles (Lonicera spp.,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 57-63.	2.9	25
78	Behaviour of specialist and generalist caterpillars on plantain (Plantago lanceolata). Ecological Entomology, 1992, 17, 273-279.	2.2	24
79	Effect of hostplant genotype and predators on iridoid glycoside content of pupae of a specialist insect herbivore, Junonia coenia (Nymphalidae). Biochemical Systematics and Ecology, 1997, 25, 571-580.	1.3	24
80	Incompatibility Between Plant-Derived Defensive Chemistry and Immune Response of Two Sphingid Herbivores. Journal of Chemical Ecology, 2015, 41, 85-92.	1.8	24
81	Host plant species affects the quality of the generalist <i>Trichoplusia ni</i> as a host for the polyembryonic parasitoid <i>Copidosoma floridanum</i>. Entomologia Experimentalis Et Applicata, 2010, 134, 287-295.	1.4	23
82	Chemical Defense Across Three Trophic Levels: Catalpa bignonioides, the Caterpillar Ceratomia catalpae, and its Endoparasitoid Cotesia congregata. Journal of Chemical Ecology, 2011, 37, 1063-1070.	1.8	23
83	Incorporation of an Introduced Weed into the Diet of a Native Butterfly: Consequences for Preference, Performance and Chemical Defense. Journal of Chemical Ecology, 2013, 39, 1313-1321.	1.8	23
84	Iridoid glycosides ofChelone glabra (Scrophulariaceae) and their sequestration by larvae of a sawfly,Tenthredo grandis (Tenthredinidae). Journal of Chemical Ecology, 1993, 19, 815-823.	1.8	22
85	Foraging behavior of specialist and generalist caterpillars on plantain (Plantago lanceolata) altered by predatory stinkbugs. Oecologia, 1992, 92, 596-602.	2.0	20
86	Butterfly community ecology: the influences of habitat type, weather patterns, and dominant species in a temperate ecosystem. Entomologia Experimentalis Et Applicata, 2012, 145, 50-61.	1.4	19
87	Effect of temperature and leaf age on growth versus moulting time of a generalist caterpillar fed plantain (Plantago lanceolata). Ecological Entomology, 1994, 19, 199-206.	2.2	18
88	Use of Two Oviposition Plants in Populations of<i>Euphydryas phaeton</i>Drury (Nymphalidae). Journal of the Lepidopterists' Society, 2013, 67, 299-300.	0.2	18
89	Phenylpropanoid glycosides of Mimulus guttatus (yellow monkeyflower). Phytochemistry Letters, 2014, 10, 132-139.	1.2	18
90	Dietary specialization and the effects of plant species on potential multitrophic interactions of three species of nymphaline caterpillars. Entomologia Experimentalis Et Applicata, 2014, 153, 207-216.	1.4	17

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91	Host Plant Effects on Immune Response Across Development of a Specialist Caterpillar. Frontiers in Ecology and Evolution, 2019, 7, .	2.2	17
92	Avian predation on the palatable butterfly, Cercyonis pegala (Satyridae). Ecological Entomology, 1979, 4, 205-209.	2.2	16
93	Population differences in larval hostplant use in the checkerspot butterfly, <i>Euphydryas chalcedona</i>. Entomologia Experimentalis Et Applicata, 1986, 40, 61-69.	1.4	16
94	Effects of insect herbivory on induced chemical defences and compensation during early plant development in Penstemon virgatus. Annals of Botany, 2013, 112, 661-669.	2.9	16
95	Foraging behaviour of caterpillars given a choice of plant genotypes in the presence of insect predators. Ecological Entomology, 2000, 25, 486-492.	2.2	15
96	Use of an exotic host plant shifts immunity, chemical defense, and viral burden in wild populations of a specialist insect herbivore. Ecology and Evolution, 2022, 12, e8723.	1.9	15
97	Mimicry in North American checkerspot butterflies: Euphydryas phaeton and Chlosyne harrisii (Nymphalidae). Ecological Entomology, 1983, 8, 1-8.	2.2	14
98	Chemical and Mechanical Defenses Vary among Maternal Lines and Leaf Ages in Verbascum thapsus L. (Scrophulariaceae) and Reduce Palatability to a Generalist Insect. PLoS ONE, 2014, 9, e104889.	2.5	14
99	Comparative Herbivory Rates and Secondary Metabolite Profiles in the Leaves of Native and Non-Native Lonicera Species. Journal of Chemical Ecology, 2015, 41, 1069-1079.	1.8	14
100	Title is missing!. Journal of Chemical Ecology, 2000, 26, 2367-2386.	1.8	13
101	Integrating species traits and habitat characteristics into models of butterfly diversity in a fragmented ecosystem. Ecological Modelling, 2014, 281, 15-25.	2.5	13
102	Soil nitrogen availability and herbivore attack influence the chemical defenses of an invasive plant (Linaria dalmatica; Plantaginaceae). Chemoecology, 2012, 22, 1-11.	1.1	12
103	Iridoid glycosides from fruits reduce the growth of fungi associated with fruit rot. Journal of Plant Ecology, 2016, 9, 357-366.	2.3	12
104	Grasshopper response to reductions in habitat area as mediated by subfamily classification and life history traits. Journal of Insect Conservation, 2011, 15, 409-419.	1.4	11
105	Overcrowding Leads to Lethal Oviposition Mistakes in the Baltimore Checkerspot,<i>Euphydryas phaeton</i>Drury (Nymphalidae). Journal of the Lepidopterists' Society, 2013, 67, 227-229.	0.2	11
106	Non-target effects of grass-specific herbicides differ among species, chemicals and host plants in Euphydryas butterflies. Journal of Insect Conservation, 2016, 20, 867-877.	1.4	11
107	Host plant iridoid glycosides mediate herbivore interactions with natural enemies. Oecologia, 2018, 188, 491-500.	2.0	11
108	Variation in iridoid glycosides in a population of Plantago patagonica Jacq. (Plantaginaceae) in Colorado. Biochemical Systematics and Ecology, 1996, 24, 207-210.	1.3	10

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109	Nitrogen enrichment differentially affects above- and belowground plant defense. American Journal of Botany, 2012, 99, 1630-1637.	1.7	10
110	Conifer Monoterpene Chemistry during an Outbreak Enhances Consumption and Immune Response of an Eruptive Folivore. Journal of Chemical Ecology, 2016, 42, 1281-1292.	1.8	9
111	A Comparison of Sample Preparation Techniques for Quantifying Iridoid Glycosides Sequestered by Lepidopteran Larvae. Journal of Chemical Ecology, 2011, 37, 496-499.	1.8	8
112	Plantâ€mediated effects of soil nitrogen enrichment on a chemically defended specialist herbivore, Calophasia lunula. Ecological Entomology, 2012, 37, 300-308.	2.2	8
113	Preference, performance, and chemical defense in an endangered butterfly using novel and ancestral host plants. Scientific Reports, 2021, 11, 992.	3.3	8
114	Variation and Developmental Change in Activity of Gregarious Caterpillars, Hemileuca Lucina (Saturniidae). Psyche: Journal of Entomology, 1988, 95, 45-58.	0.9	7
115	Hemiparasites can transmit indirect effects from their host plants to herbivores. Ecology, 2018, 99, 399-410.	3.2	7
116	Critical Phenological Events Affect Chemical Defense of Plant Tissues: Iridoid Glycosides in a Woody Shrub. Journal of Chemical Ecology, 2020, 46, 206-216.	1.8	7
117	Factors Affecting Host-plant Use by the Montane Butterfly Euphydryas gillettii (Nymphalidae). American Midland Naturalist, 1987, 118, 153.	0.4	6
118	Detrimental effects of plant compounds on a polyembryonic parasitoid are mediated through its highly polyphagous herbivore host. Entomologia Experimentalis Et Applicata, 2013, 148, 267-274.	1.4	5
119	Host Plant Suitability in a Specialist Herbivore, Euphydryas anicia (Nymphalidae): Preference, Performance and Sequestration. Journal of Chemical Ecology, 2018, 44, 1051-1057.	1.8	5
120	The Perennial Penstemon: Variation in Defensive Chemistry Across Years, Populations, and Tissues. Journal of Chemical Ecology, 2017, 43, 599-607.	1.8	4
121	Iridoid glycoside and allozyme variation within and among populations of Plantago rhodosperma decne. (Plantaginaceae). Biochemical Systematics and Ecology, 1997, 25, 581-590.	1.3	3
122	Localization of Defensive Chemicals in Two Congeneric Butterflies (Euphydryas, Nymphalidae). Journal of Chemical Ecology, 2017, 43, 480-486.	1.8	3
123	Solitary Floral Specialists Do Not Respond to Cryptic Flower-Occupying Predators. Journal of Insect Behavior, 2018, 31, 642-655.	0.7	2
124	Seasonal Variation in Host Plant Chemistry Drives Sequestration in a Specialist Caterpillar. Journal of Chemical Ecology, 2022, 48, 79-88.	1.8	1
125	Hostplant Choice of Checkerspot Larvae: Euphydr Yas Chalcedona, E. Colon, and Hybrids (Lepidoptera:) Tj ETQq1 1 0.784314 rgBT /Ov	0.9	0