M Deane Bowers

List of Publications by Year in Descending Order

126 papers	5,058 citations	44 h-index	66 g-index
127 ext. papers	5,573 ext. citations	3 avg, IF	5.82 L-index

#	Paper	IF	Citations
126	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	2.8	1
125	Sequestered Caterpillar Chemical Defenses: From Disgusting Morsels to Model Systems. *Fascinating Life Sciences*, **2022**, 165-192	1.1	
124	Seasonal Variation in Host Plant Chemistry Drives Sequestration in a Specialist Caterpillar. *Journal of Chemical Ecology*, **2021**, 1	2.7	
123	Preference, performance, and chemical defense in an endangered butterfly using novel and ancestral host plants. *Scientific Reports*, **2021**, 11, 992	4.9	2
122	Critical Phenological Events Affect Chemical Defense of Plant Tissues: Iridoid Glycosides in a Woody Shrub. *Journal of Chemical Ecology*, **2020**, 46, 206-216	2.7	3
121	Host Plant Effects on Immune Response Across Development of a Specialist Caterpillar. *Frontiers in Ecology and Evolution*, **2019**, 7,	3.7	6
120	Plant and herbivore ontogeny interact to shape the preference, performance and chemical defense of a specialist herbivore. *Oecologia*, **2018**, 187, 401-412	2.9	25
119	Host plant iridoid glycosides mediate herbivore interactions with natural enemies. *Oecologia*, **2018**, 188, 491-500	2.9	7
118	Hemiparasites can transmit indirect effects from their host plants to herbivores. *Ecology*, **2018**, 99, 399-410	4.0	5
117	Solitary Floral Specialists Do Not Respond to Cryptic Flower-Occupying Predators. *Journal of Insect Behavior*, **2018**, 31, 642-655	1.1	2
116	Host Plant Suitability in a Specialist Herbivore, Euphydryas anicia (Nymphalidae): Preference, Performance and Sequestration. *Journal of Chemical Ecology*, **2018**, 44, 1051-1057	2.7	3
115	Localization of Defensive Chemicals in Two Congeneric Butterflies (Euphydryas, Nymphalidae). *Journal of Chemical Ecology*, **2017**, 43, 480-486	2.7	2
114	The Perennial Penstemon: Variation in Defensive Chemistry Across Years, Populations, and Tissues. *Journal of Chemical Ecology*, **2017**, 43, 599-607	2.7	3
113	Iridoid glycosides from fruits reduce the growth of fungi associated with fruit rot. *Journal of Plant Ecology*, **2016**, 9, 357-366	1.7	11
112	Nectar chemistry mediates the behavior of parasitized bees: consequences for plant fitness. *Ecology*, **2016**, 97, 325-37	4.6	50
111	Preference and performance of generalist and specialist herbivores on chemically defended host plants. *Ecological Entomology*, **2016**, 41, 308-316	2.1	22
110	Chemical tradeoffs in seed dispersal: defensive metabolites in fruits deter consumption by mutualist bats. *Oikos*, **2016**, 125, 927-937	4	24

109	Conifer Monoterpene Chemistry during an Outbreak Enhances Consumption and Immune Response of an Eruptive Folivore. *Journal of Chemical Ecology*, **2016**, 42, 1281-1292	2.7	8
108	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	2.1	9
107	Gut microbes may facilitate insect herbivory of chemically defended plants. *Oecologia*, **2015**, 179, 1-14	2.9	135
106	Comparative Herbivory Rates and Secondary Metabolite Profiles in the Leaves of Native and Non-Native Lonicera Species. *Journal of Chemical Ecology*, **2015**, 41, 1069-79	2.7	9
105	Incompatibility between plant-derived defensive chemistry and immune response of two sphingid herbivores. *Journal of Chemical Ecology*, **2015**, 41, 85-92	2.7	16
104	Integrating species traits and habitat characteristics into models of butterfly diversity in a fragmented ecosystem. *Ecological Modelling*, **2014**, 281, 15-25	3	8
103	Phenylpropanoid glycosides of Mimulus guttatus (yellow monkeyflower). *Phytochemistry Letters*, **2014**, 10, 132-139	1.9	14
102	Chemical ecology of fruit defence: synergistic and antagonistic interactions among amides from Piper. *Functional Ecology*, **2014**, 28, 1094-1106	5.6	36
101	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	2.1	13
100	Enemy-free space for parasitoids. *Environmental Entomology*, **2014**, 43, 1465-74	2.1	20
99	Time is of the essence: direct and indirect effects of plant ontogenetic trajectories on higher trophic levels. *Ecology*, **2014**, 95, 2589-2602	4.6	40
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	3.7	11
97	Patterns of phytochemical variation in Mimulus guttatus (yellow monkeyflower). *Journal of Chemical Ecology*, **2013**, 39, 525-36	2.7	30
96	Evidence for the adaptive significance of secondary compounds in vertebrate-dispersed fruits. *American Naturalist*, **2013**, 182, 563-77	3.7	31
95	Effects of insect herbivory on induced chemical defences and compensation during early plant development in Penstemon virgatus. *Annals of Botany*, **2013**, 112, 661-9	4.1	13
94	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, 1313-21	2.7	20
93	Iridoid and secoiridoid glycosides in a hybrid complex of bush honeysuckles (Lonicera spp., Caprifolicaceae): implications for evolutionary ecology and invasion biology. *Phytochemistry*, **2013**, 86, 57-63	4	17
92	Patterns of secondary metabolite allocation to fruits and seeds in Piper reticulatum. *Journal of Chemical Ecology*, **2013**, 39, 1373-84	2.7	26

91	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	2.1	5
90	Overcrowding Leads to Lethal Oviposition Mistakes in the Baltimore Checkerspot,Euphydryas phaetonDrury (Nymphalidae). *Journal of the LepidopteristsuSociety*, **2013**, 67, 227-229	0.4	10
89	Use of Two Oviposition Plants in Populations ofEuphydryas phaetonDrury (Nymphalidae). *Journal of the LepidopteristsuSociety*, **2013**, 67, 299-300	0.4	7
88	Plant-mediated effects of soil nitrogen enrichment on a chemically defended specialist herbivore, Calophasia lunula. *Ecological Entomology*, **2012**, 37, 300-308	2.1	7
87	Soil nitrogen availability and herbivore attack influence the chemical defenses of an invasive plant (Linaria dalmatica; Plantaginaceae). *Chemoecology*, **2012**, 22, 1-11	2	10
86	Changes in plant chemical defenses and nutritional quality as a function of ontogeny in Plantago lanceolata (Plantaginaceae). *Oecologia*, **2012**, 168, 471-81	2.9	37
85	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	2.1	16
84	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, 1276-84	2.7	51
83	Combining optimal defense theory and the evolutionary dilemma model to refine predictions regarding plant invasion. *Ecology*, **2012**, 93, 1912-21	4.6	22
82	The interplay between toxin-releasing Eglucosidase and plant iridoid glycosides impairs larval development in a generalist caterpillar, Grammia incorrupta (Arctiidae). *Insect Biochemistry and Molecular Biology*, **2012**, 42, 426-34	4.5	22
81	Nitrogen enrichment differentially affects above- and belowground plant defense. *American Journal of Botany*, **2012**, 99, 1630-7	2.7	6
80	Elevation-dependent temperature trends in the Rocky Mountain Front Range: changes over a 56- and 20-year record. *PLoS ONE*, **2012**, 7, e44370	3.7	86
79	Grasshopper response to reductions in habitat area as mediated by subfamily classification and life history traits. *Journal of Insect Conservation*, **2011**, 15, 409-419	2.1	8
78	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	2.7	42
77	Chemical defense across three trophic levels: Catalpa bignonioides, the caterpillar Ceratomia catalpae, and its endoparasitoid Cotesia congregata. *Journal of Chemical Ecology*, **2011**, 37, 1063-70	2.7	18
76	Effects of ingested secondary metabolites on the immune response of a polyphagous caterpillar Grammia incorrupta. *Journal of Chemical Ecology*, **2011**, 37, 239-45	2.7	26
75	A comparison of sample preparation techniques for quantifying iridoid glycosides sequestered by lepidopteran larvae. *Journal of Chemical Ecology*, **2011**, 37, 496-9	2.7	6
74	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	2.7	22

73	Host plant species affects the quality of the generalist Trichoplusia ni as a host for the polyembryonic parasitoid Copidosoma floridanum. *Entomologia Experimentalis Et Applicata*, **2010**, 134, 287-295	2.1	23
72	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, 70-9	2.7	36
71	Caterpillar chemical defense and parasitoid success: Cotesia congregata parasitism of Ceratomia catalpae. *Journal of Chemical Ecology*, **2010**, 36, 992-8	2.7	27
70	Host plant influences on iridoid glycoside sequestration of generalist and specialist caterpillars. *Journal of Chemical Ecology*, **2010**, 36, 1101-4	2.7	30
69	Influence of iridoid glycoside containing host plants on midgut β-glucosidase activity in a polyphagous caterpillar, Spilosoma virginica Fabricius (Arctiidae). *Journal of Insect Physiology*, **2010**, 56, 1907-12	2.4	22
68	Grasshopper community response to climatic change: variation along an elevational gradient. *PLoS ONE*, **2010**, 5, e12977	3.7	46
67	Arbuscular mycorrhizal fungal species suppress inducible plant responses and alter defensive strategies following herbivory. *Oecologia*, **2009**, 160, 771-9	2.9	89
66	Immunological cost of chemical defence and the evolution of herbivore diet breadth. *Ecology Letters*, **2009**, 12, 612-21	10	127
65	Neighbor species differentially alter resistance phenotypes in Plantago. *Oecologia*, **2006**, 150, 442-52	2.9	43
64	Soil nutrient effects on oviposition preference, larval performance, and chemical defense of a specialist insect herbivore. *Oecologia*, **2005**, 143, 578-87	2.9	72
63	Patterns of iridoid glycoside production and induction in Plantago lanceolata and the importance of plant age. *Journal of Chemical Ecology*, **2004**, 30, 1723-41	2.7	60
62	Hostplant suitability and defensive chemistry of the Catalpa sphinx, Ceratomia catalpae. *Journal of Chemical Ecology*, **2003**, 29, 2359-67	2.7	63
61	Foraging behaviour of caterpillars given a choice of plant genotypes in the presence of insect predators. *Ecological Entomology*, **2000**, 25, 486-492	2.1	14
60	Effects of plant phenology, nutrients and herbivory on growth and defensive chemistry of plantain, Plantago lanceolata. *Oikos*, **2000**, 88, 371-379	4	44
59	Do Enemies of Herbivores Influence Plant Growth and Chemistry? Evidence from a Seminatural Experiment. *Journal of Chemical Ecology*, **2000**, 26, 2367-2386	2.7	11
58	Effects of Sequestered Iridoid Glycosides on Prey Choice of the Prairie Wolf Spider, Lycosa carolinensis. *Journal of Chemical Ecology*, **1999**, 25, 283-295	2.7	51
57	Effects of Herbivore Damage and Nutrient Level on Induction of Iridoid Glycosides in Plantago lanceolata. *Journal of Chemical Ecology*, **1999**, 25, 1427-1440	2.7	58
56	Phenological and population variation in iridoid glycosides of Plantago lanceolata (Plantaginaceae). *Biochemical Systematics and Ecology*, **1997**, 25, 1-11	1.4	48

55	Iridoid glycoside and allozyme variation within and among populations of Plantago rhodosperma decne. (Plantaginaceae). *Biochemical Systematics and Ecology*, **1997**, 25, 581-590	1.4	3
54	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	1.4	23
53	Fate of Host-Plant Iridoid Glycosides in Lepidopteran Larvae of Nymphalidae and Arcthdae. *Journal of Chemical Ecology*, **1997**, 23, 2955-2965	2.7	51
52	Variation in iridoid glycosides in a population of Plantago patagonica Jacq. (Plantaginaceae) in Colorado. *Biochemical Systematics and Ecology*, **1996**, 24, 207-210	1.4	10
51	The importance of sequestered iridoid glycosides as a defense against an ant predator. *Journal of Chemical Ecology*, **1996**, 22, 1527-39	2.7	80
50	Genetic variation in defensive chemistry in Plantago lanceolata (Plantaginaceae) and its effect on the specialist herbivore Junonia coenia (Nymphalidae). *Oecologia*, **1995**, 101, 75-85	2.9	102
49	Consequences for Plantain Chemistry and Growth When Herbivores are Attacked by Predators. *Ecology*, **1995**, 77, 535-549	4.6	22
48	Variable chemical defence in the checkerspot butterfly Euphydryas gillettii (Lepidoptera: Nymphalidae). *Ecological Entomology*, **1995**, 20, 208-212	2.1	21
47	The iridoid glycoside, catalpol, as a deterrent to the predatorCamponotus floridanus (Formicidae). *Chemoecology*, **1994**, 5-6, 13-18	2	24
46	Effects of cages, plant age and mechanical clipping on plantain chemistry. *Oecologia*, **1994**, 99, 66-71	2.9	29
45	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	2.1	15
44	Pattern of Leaf Damage Affects Fitness of the Annual Plant Raphanus Sativus (Brassicaceae). *Ecology*, **1993**, 74, 2066-2071	4.6	114
43	Effects of Plant Age, Genotype and Herbivory on Plantago Performance and Chemistry. *Ecology*, **1993**, 74, 1778-1791	4.6	148
42	Presence of predatory wasps and stinkbugs alters foraging behavior of cryptic and non-cryptic caterpillars on plantain (Plantago lanceolata). *Oecologia*, **1993**, 95, 376-384	2.9	39
41	Iridoid glycosides ofChelone glabra (Scrophulariaceae) and their sequestration by larvae of a sawfly,Tenthredo grandis (Tenthredinidae). *Journal of Chemical Ecology*, **1993**, 19, 815-23	2.7	20
40	Leaf variation in iridoid glycoside content ofPlantago lanceolata (Plantaginaceae) and oviposition of the buckeye,Junonia coenia (Nymphalidae). *Chemoecology*, **1993**, 4, 72-78	2	27
39	Early Stage of Host Range Expansion by a Specialist Herbivore, Euphydryas Phaeton (Nymphalidae). *Ecology*, **1992**, 73, 526-536	4.6	82
38	The effect of nutrients and enriched CO$_2$ environments on production of carbon-based allelochemicals in Plantago: a test of the carbon/nutrient balance hypothesis. *American Naturalist*, **1992**, 140, 707-23	3.7	189

37	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	2.9	79
36	Foraging behavior of specialist and generalist caterpillars on plantain (Plantago lanceolata) altered by predatory stinkbugs. *Oecologia*, **1992**, 92, 596-602	2.9	18
35	Chemical variation within and between individuals ofPlantago lanceolata (Plantaginaceae). *Journal of Chemical Ecology*, **1992**, 18, 985-95	2.7	94
34	Fate of iridoid glycosides in different life stages of the Buckeye,Junonia coenia (Lepidoptera: Nymphalidae). *Journal of Chemical Ecology*, **1992**, 18, 817-31	2.7	88
33	Behaviour of specialist and generalist caterpillars on plantain (Plantago lanceolata). *Ecological Entomology*, **1992**, 17, 273-279	2.1	18
32	Factors affecting calculation of nutritional induces for foliage-fed insects: an experimental approach. *Entomologia Experimentalis Et Applicata*, **1991**, 61, 101-116	2.1	27
31	Indirect effect on survivorship of caterpillars due to presence of invertebrate predators. *Oecologia*, **1991**, 88, 325-330	2.9	49
30	Performance and allocation patterns of the perennial herb, Plantago lanceolata, in response to simulated herbivory and elevated CO environments. *Oecologia*, **1991**, 87, 37-42	2.9	54
29	Iridoid Glycosides **1991**, 297-325		79
28	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	2.1	33
27	Variation in Food Quality and Temperature Constrain Foraging of Gregarious Caterpillars. *Ecology*, **1990**, 71, 1031-1039	4.6	94
26	Phenology of nutritional differences between new and mature leaves and its effect on caterpillar growth. *Ecological Entomology*, **1990**, 15, 447-454	2.1	50
25	The behaviour of grey jays, Perisoreus canadensis, towards palatable and unpalatable Lepidoptera. *Animal Behaviour*, **1990**, 39, 699-705	2.8	54
24	The effects of enriched carbon dioxide atmospheres on plant--insect herbivore interactions. *Science* , **1989**, 243, 1198-200	33.3	208
23	Acquired chemical defense in the lycaenid butterfly,Eumaeus atala. *Journal of Chemical Ecology*, **1989**, 15, 1133-46	2.7	41
22	Iridoid glycosides of Aureolaria flava and their sequestration by Euphydryas phaeton butterflies. *Phytochemistry*, **1989**, 28, 1601-1604	4	35
21	Iridoid glycosides and insect feeding preferences: gypsy moths (Lymantria dispar, Lymantriidae) and buckeyes (Junonia coenia, Nymphalidae). *Ecological Entomology*, **1989**, 14, 247-256	2.1	50
20	Direct and indirect effects of predatory wasps (Polistes sp.: Vespidae) on gregarious caterpillars (Hemileuca lucina: Saturniidae). *Oecologia*, **1988**, 75, 619-624	2.9	97

19	Iridoid glycosides as oviposition stimulants for the buckeye butterfly,Junonia coenia (Nymphalidae). *Journal of Chemical Ecology*, **1988**, 14, 917-28	2.7	79
18	Effect of qualitative and quantitative variation in allelochemicals on a generalist insect: Iridoid glycosides and the southern armyworm. *Journal of Chemical Ecology*, **1988**, 14, 335-51	2.7	82
17	Response of generalist and specialist insects to qualitative allelochemical variation. *Journal of Chemical Ecology*, **1988**, 14, 319-34	2.7	157
16	Chemistry and Coevolution: Iridoid Glycosides, Plants, and Herbivorous Insects **1988**, 133-165		35
15	Variation and Developmental Change in Activity of Gregarious Caterpillars, Hemileuca Lucina (Saturniidae). *Psyche: Journal of Entomology*, **1988**, 95, 45-58	0.2	6
14	Factors Affecting Host-plant Use by the Montane Butterfly Euphydryas gillettii (Nymphalidae). *American Midland Naturalist*, **1987**, 118, 153	0.7	5
13	Developmental change in aggregation, defense and escape behavior of buckmoth caterpillars, Hemileuca lucina (Saturniidae). *Behavioral Ecology and Sociobiology*, **1987**, 20, 383-388	2.5	59
12	Fate of ingested iridoid glycosides in lepidopteran herbivores. *Journal of Chemical Ecology*, **1986**, 12, 169-78	2.7	96
11	Population differences in larval hostplant use in the checkerspot butterfly, Euphydryas chalcedona. *Entomologia Experimentalis Et Applicata*, **1986**, 40, 61-69	2.1	10
10	BIRD PREDATION AS A SELECTIVE AGENT IN A BUTTERFLY POPULATION. *Evolution; International Journal of Organic Evolution*, **1985**, 39, 93-103	3.8	49
9	Hostplant Choice of Checkerspot Larvae: Euphydr Yas Chalcedona, E. Colon, and Hybrids (Lepidoptera: Nymphalidae). *Psyche: Journal of Entomology*, **1985**, 92, 39-48	0.2	
8	Iridoid glycosides and host-plant specificity in larvae of the buckeye butterfly,Junonia coenia (Nymphalidae). *Journal of Chemical Ecology*, **1984**, 10, 1567-77	2.7	115
7	The role of iridoid glycosides in host-plant specificity of checkerspot butterflies. *Journal of Chemical Ecology*, **1983**, 9, 475-93	2.7	80
6	Mimicry in North American checkerspot butterflies: Euphydryas phaeton and Chlosyne harrisii (Nymphalidae). *Ecological Entomology*, **1983**, 8, 1-8	2.1	13
5	Unpalatability as a Defense Strategy of Western Checkerspot Butterflies (Euphydryas scudder, Nymphalidae). *Evolution; International Journal of Organic Evolution*, **1981**, 35, 367	3.8	35
4	UNPALATABILITY AS A DEFENSE STRATEGY OF WESTERN CHECKERSPOT BUTTERFLIES (EUPHYDRYAS SCUDDER, NYMPHALIDAE). *Evolution; International Journal of Organic Evolution*, **1981**, 35, 367-375	3.8	55
3	UNPALATABILITY AS A DEFENSE STRATEGY OF EUPHYDRYAS PHAETON (LEPIDOPTERA: NYMPHALIDAE). *Evolution; International Journal of Organic Evolution*, **1980**, 34, 586-600	3.8	60
2	Unpalatability as a Defense Strategy of Euphydryas phaeton (Lepidoptera: Nymphalidae). *Evolution; International Journal of Organic Evolution*, **1980**, 34, 586	3.8	54

1	Avian predation on the palatable butterfly, Cercyonis pegala (Satyridae). *Ecological Entomology*, **1979**, 4, 205-209	2.1	14