

Mark C Mescher

List of Publications by Year in descending order

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85
papers

5,484
citations

126907

33
h-index

85541

71
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86
all docs

86
docs citations

86
times ranked

4718
citing authors

#	ARTICLE	IF	CITATIONS
1	Transmission-enhancing effects of a plant virus depend on host association with beneficial bacteria. <i>Arthropod-Plant Interactions</i> , 2022, 16, 15-31.	1.1	2
2	Negative Effects of Rhizobacteria Association on Plant Recruitment of Generalist Predators. <i>Plants</i> , 2022, 11, 920.	3.5	0
3	Experimental evidence challenges the presumed defensive function of a "slow toxin" in cycads. <i>Scientific Reports</i> , 2022, 12, 6013.	3.3	5
4	Sensory coevolution: The sex attractant of a gall-making fly primes plant defences, but female flies recognize resulting changes in host-plant quality. <i>Journal of Ecology</i> , 2021, 109, 99-108.	4.0	1
5	A plant parasite uses light cues to detect differences in host-plant proximity and architecture. <i>Plant, Cell and Environment</i> , 2021, 44, 1142-1150.	5.7	11
6	Inbreeding in <i>Solanum carolinense</i> alters floral attractants and rewards and adversely affects pollinator visitation. <i>American Journal of Botany</i> , 2021, 108, 74-82.	1.7	13
7	Network motifs involving both competition and facilitation predict biodiversity in alpine plant communities. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	47
8	A sensory bias overrides learned preferences of bumblebees for honest signals in <i>Mimulus guttatus</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2021, 288, 20210161.	2.6	4
9	Giant polyploid epidermal cells and male pheromone production in the tephritid fruit fly <i>Eurosta solidaginis</i> (Diptera: Tephritidae). <i>Journal of Insect Physiology</i> , 2021, 130, 104210.	2.0	2
10	Effects of Root-Colonizing Fluorescent <i>Pseudomonas</i> Strains on <i>Arabidopsis</i> Resistance to a Pathogen and an Herbivore. <i>Applied and Environmental Microbiology</i> , 2021, 87, e0283120.	3.1	10
11	A unique volatile signature distinguishes malaria infection from other conditions that cause similar symptoms. <i>Scientific Reports</i> , 2021, 11, 13928.	3.3	8
12	Application of Plant Defense Elicitors Fails to Enhance Herbivore Resistance or Mitigate Phytoplasma Infection in Cranberries. <i>Frontiers in Plant Science</i> , 2021, 12, 700242.	3.6	1
13	Aphids harbouring different endosymbionts exhibit differences in cuticular hydrocarbon profiles that can be recognized by ant mutualists. <i>Scientific Reports</i> , 2021, 11, 19559.	3.3	11
14	Phytoplasma Infection of Cranberry Affects Development and Oviposition, but Not Host-Plant Selection, of the Insect Vector <i>Limotettix vaccinii</i> . <i>Journal of Chemical Ecology</i> , 2020, 46, 722-734.	1.8	5
15	Bumble bees damage plant leaves and accelerate flower production when pollen is scarce. <i>Science</i> , 2020, 368, 881-884.	12.6	35
16	Enhanced heat tolerance of viral-infected aphids leads to niche expansion and reduced interspecific competition. <i>Nature Communications</i> , 2020, 11, 1184.	12.8	31
17	Transgenerational impacts of herbivory and inbreeding on reproductive output in <i>Solanum carolinense</i> . <i>American Journal of Botany</i> , 2020, 107, 286-297.	1.7	17
18	Plant volatiles induced by herbivore eggs prime defences and mediate shifts in the reproductive strategy of receiving plants. <i>Ecology Letters</i> , 2020, 23, 1097-1106.	6.4	34

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19	Herbivory and inbreeding affect growth, reproduction, and resistance in the rhizomatous offshoots of <i>Solanum carolinense</i> (Solanaceae). <i>Evolutionary Ecology</i> , 2019, 33, 499-520.	1.2	10
20	Divergent behavioural responses of gypsy moth (<i>Lymantria dispar</i>) caterpillars from three different subspecies to potential host trees. <i>Scientific Reports</i> , 2019, 9, 8953.	3.3	13
21	Combined effects of mutualistic rhizobacteria counteract virus-induced suppression of indirect plant defences in soya bean. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20190211.	2.6	13
22	Costs of plant defense priming: exposure to volatile cues from a specialist herbivore increases short-term growth but reduces rhizome production in tall goldenrod (<i>Solidago altissima</i>). <i>BMC Plant Biology</i> , 2019, 19, 209.	3.6	17
23	Variation in growth and defence traits among plant populations at different elevations: Implications for adaptation to climate change. <i>Journal of Ecology</i> , 2019, 107, 2478-2492.	4.0	36
24	Sorghum 3-Deoxyanthocyanidin Flavonoids Confer Resistance against Corn Leaf Aphid. <i>Journal of Chemical Ecology</i> , 2019, 45, 502-514.	1.8	32
25	Divergence in Glucosinolate Profiles between High- and Low-Elevation Populations of <i>Arabidopsis halleri</i> Correspond to Variation in Field Herbivory and Herbivore Behavioral Preferences. <i>International Journal of Molecular Sciences</i> , 2019, 20, 174.	4.1	11
26	Trade-offs between defenses against herbivores in goldenrod (<i>Solidago altissima</i>). <i>Arthropod-Plant Interactions</i> , 2019, 13, 279-287.	1.1	7
27	A key floral scent component (β -trans-bergamotene) drives pollinator preferences independently of pollen rewards in seep monkeyflower. <i>Functional Ecology</i> , 2019, 33, 218-228.	3.6	31
28	Can we use human odors to diagnose malaria?. <i>Future Microbiology</i> , 2019, 14, 5-9.	2.0	10
29	Whitefly aggregation on tomato is mediated by feeding-induced changes in plant metabolites that influence the behaviour and performance of conspecifics. <i>Functional Ecology</i> , 2018, 32, 1180-1193.	3.6	43
30	Volatile biomarkers of symptomatic and asymptomatic malaria infection in humans. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 5780-5785.	7.1	55
31	A plant virus (BYDV) promotes trophic facilitation in aphids on wheat. <i>Scientific Reports</i> , 2018, 8, 11709.	3.3	14
32	Leaf trichomes affect caterpillar feeding in an instar-specific manner. <i>Communicative and Integrative Biology</i> , 2018, 11, 1-6.	1.4	59
33	The volatile emission of a specialist herbivore alters patterns of plant defence, growth and flower production in a field population of goldenrod. <i>Functional Ecology</i> , 2017, 31, 1062-1070.	3.6	13
34	Non-glandular trichomes of <i>Solanum carolinense</i> deter feeding by <i>Manduca sexta</i> caterpillars and cause damage to the gut peritrophic matrix. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2017, 284, 20162323.	2.6	64
35	Effects of malaria infection on mosquito olfaction and behavior: extrapolating data to the field. <i>Current Opinion in Insect Science</i> , 2017, 20, 7-12.	4.4	30
36	Editorial overview: Ecology: The chemical ecology of human disease transmission by mosquito vectors. <i>Current Opinion in Insect Science</i> , 2017, 20, v-vi.	4.4	6

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37	Plant spines deter herbivory by restricting caterpillar movement. <i>Biology Letters</i> , 2017, 13, 20170176.	2.3	33
38	Exploring the Effects of Plant Odors, from Tree Species of Differing Host Quality, on the Response of <i>Lymantria dispar</i> Males to Female Sex Pheromones. <i>Journal of Chemical Ecology</i> , 2017, 43, 243-253.	1.8	12
39	Identification of an insect-produced olfactory cue that primes plant defenses. <i>Nature Communications</i> , 2017, 8, 337.	12.8	60
40	Comparing the Expression of Olfaction-Related Genes in Gypsy Moth (<i>Lymantria dispar</i>) Adult Females and Larvae from One Flightless and Two Flight-Capable Populations. <i>Frontiers in Ecology and Evolution</i> , 2017, 5, .	2.2	10
41	<i>Tomato yellow leaf curl virus</i> differentially influences plant defence responses to a vector and a non-vector herbivore. <i>Plant, Cell and Environment</i> , 2016, 39, 597-607.	5.7	53
42	Effects of pathogens on sensory-mediated interactions between plants and insect vectors. <i>Current Opinion in Plant Biology</i> , 2016, 32, 53-61.	7.1	88
43	Mechanical defenses of plant extrafloral nectaries against herbivory. <i>Communicative and Integrative Biology</i> , 2016, 9, e1178431.	1.4	13
44	Glucosinolates from Host Plants Influence Growth of the Parasitic Plant <i>Cuscuta gronovii</i> and Its Susceptibility to Aphid Feeding. <i>Plant Physiology</i> , 2016, 172, 181-197.	4.8	38
45	Communicative interactions involving plants: information, evolution, and ecology. <i>Current Opinion in Plant Biology</i> , 2016, 32, 69-76.	7.1	22
46	Manipulation of light spectral quality disrupts host location and attachment by parasitic plants in the genus <i>Cuscuta</i> . <i>Journal of Applied Ecology</i> , 2016, 53, 794-803.	4.0	13
47	Horizontal Gene Acquisitions, Mobile Element Proliferation, and Genome Decay in the Host-Restricted Plant Pathogen <i>Erwinia Tracheiphila</i> . <i>Genome Biology and Evolution</i> , 2016, 8, 649-664.	2.5	34
48	Effects of single and mixed infections of <i>Bean pod mottle virus</i> and <i>Soybean mosaic virus</i> on host-plant chemistry and host-vector interactions. <i>Functional Ecology</i> , 2016, 30, 1648-1659.	3.6	50
49	Handheld Lasers Allow Efficient Detection of Fluorescent Marked Organisms in the Field. <i>PLoS ONE</i> , 2015, 10, e0129175.	2.5	22
50	Draft Genome Sequence of <i>Erwinia tracheiphila</i> , an Economically Important Bacterial Pathogen of Cucurbits. <i>Genome Announcements</i> , 2015, 3, .	0.8	14
51	Herbivore-induced plant volatiles in natural and agricultural ecosystems: open questions and future prospects. <i>Current Opinion in Insect Science</i> , 2015, 9, 1-6.	4.4	35
52	Infection of host plants by Cucumber mosaic virus increases the susceptibility of <i>Myzus persicae</i> aphids to the parasitoid <i>Aphidius colemani</i> . <i>Scientific Reports</i> , 2015, 5, 10963.	3.3	39
53	Targeted predation of extrafloral nectaries by insects despite localized chemical defences. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2015, 282, 20151835.	2.6	13
54	Virus infection influences host plant interactions with non-vector herbivores and predators. <i>Functional Ecology</i> , 2015, 29, 662-673.	3.6	43

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55	Role of plant sensory perception in plant-animal interactions. <i>Journal of Experimental Botany</i> , 2015, 66, 425-433.	4.8	58
56	Plant Dependence on Rhizobia for Nitrogen Influences Induced Plant Defenses and Herbivore Performance. <i>International Journal of Molecular Sciences</i> , 2014, 15, 1466-1480.	4.1	50
57	Plant inbreeding and prior herbivory influence the attraction of caterpillars (<i>Manduca sexta</i>) to odors of the host plant <i>Solanum carolinense</i> (Solanaceae). <i>American Journal of Botany</i> , 2014, 101, 376-380.	1.7	26
58	The volatile emission of <i>Eurosta solidaginis</i> primes herbivore-induced volatile production in <i>Solidago altissima</i> and does not directly deter insect feeding. <i>BMC Plant Biology</i> , 2014, 14, 173.	3.6	35
59	Malaria-induced changes in host odors enhance mosquito attraction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 11079-11084.	7.1	137
60	Pass the ammunition. <i>Nature</i> , 2014, 510, 221-222.	27.8	5
61	Exposure of <i>Solidago altissima</i> plants to volatile emissions of an insect antagonist (<i>Tj ETQq1</i>) <i>Overlock 10 T</i> <i>Sciences of the United States of America</i> , 2013, 110, 199-204.	7.1	77
62	Implications of bioactive solute transfer from hosts to parasitic plants. <i>Current Opinion in Plant Biology</i> , 2013, 16, 464-472.	7.1	33
63	Constitutive and herbivore-induced structural defenses are compromised by inbreeding in <i>Solanum carolinense</i> (Solanaceae). <i>American Journal of Botany</i> , 2013, 100, 1014-1021.	1.7	56
64	Inbreeding in horsenettle (<i>Solanum carolinense</i>) alters night-time volatile emissions that guide oviposition by <i>Manduca sexta</i> moths. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2013, 280, 20130020.	2.6	44
65	Inbreeding increases susceptibility to powdery mildew (<i>Oidium neolycopersici</i>) infestation in horsenettle (<i>Solanum carolinense</i> L). <i>Plant Signaling and Behavior</i> , 2012, 7, 803-806.	2.4	6
66	A petiole-galling insect herbivore decelerates leaf lamina litter decomposition rates. <i>Functional Ecology</i> , 2012, 26, 628-636.	3.6	14
67	Transmission mechanisms shape pathogen effects on host-vector interactions: evidence from plant viruses. <i>Functional Ecology</i> , 2012, 26, 1162-1175.	3.6	329
68	Inbreeding, herbivory, and the transcriptome of <i>Solanum carolinense</i> . <i>Entomologia Experimentalis Et Applicata</i> , 2012, 144, 134-144.	1.4	33
69	Inbreeding alters volatile signalling phenotypes and influences tritrophic interactions in horsenettle (<i>Solanum carolinense</i> L.). <i>Ecology Letters</i> , 2012, 15, 301-309.	6.4	74
70	Inbreeding Depression in <i>Solanum carolinense</i> (Solanaceae) under Field Conditions and Implications for Mating System Evolution. <i>PLoS ONE</i> , 2011, 6, e28459.	2.5	36
71	Parasitism by <i>Cuscuta pentagona</i> sequentially induces JA and SA defence pathways in tomato. <i>Plant, Cell and Environment</i> , 2010, 33, 290-303.	5.7	67
72	Deceptive chemical signals induced by a plant virus attract insect vectors to inferior hosts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 3600-3605.	7.1	471

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73	Inbreeding in horsenettle influences herbivore resistance. <i>Ecological Entomology</i> , 2009, 34, 513-519.	2.2	34
74	Olfaction: Chemical Signposts along the Silk Road. <i>Current Biology</i> , 2009, 19, R491-R493.	3.9	0
75	Plant-rhizobia mutualism influences aphid abundance on soybean. <i>Plant and Soil</i> , 2009, 323, 187-196.	3.7	57
76	Jasmonate and salicylate-mediated plant defense responses to insect herbivores, pathogens and parasitic plants. <i>Pest Management Science</i> , 2009, 65, 497-503.	3.4	187
77	Priming defense genes and metabolites in hybrid poplar by the green leaf volatile <i>cis</i> -3-hexenyl acetate. <i>New Phytologist</i> , 2008, 180, 722-734.	7.3	243
78	Plant Defense Priming against Herbivores: Getting Ready for a Different Battle. <i>Plant Physiology</i> , 2008, 146, 818-824.	4.8	425
79	Parasitism by <i>Cuscuta pentagona</i> Attenuates Host Plant Defenses against Insect Herbivores. <i>Plant Physiology</i> , 2008, 146, 987-995.	4.8	50
80	Within-plant signalling via volatiles overcomes vascular constraints on systemic signalling and primes responses against herbivores. <i>Ecology Letters</i> , 2007, 10, 490-498.	6.4	333
81	Induction of Plant Volatiles by Herbivores with Different Feeding Habits and the Effects of Induced Defenses on Host-Plant Selection by Thrips. <i>Journal of Chemical Ecology</i> , 2007, 33, 997-1012.	1.8	112
82	Volatile Chemical Cues Guide Host Location and Host Selection by Parasitic Plants. <i>Science</i> , 2006, 313, 1964-1967.	12.6	299
83	Plant Host Finding by Parasitic Plants. <i>Plant Signaling and Behavior</i> , 2006, 1, 284-286.	2.4	16
84	Inbreeding effects on blossom volatiles in <i>Cucurbita pepo</i> subsp. <i>texana</i> (Cucurbitaceae). <i>American Journal of Botany</i> , 2006, 93, 1768-1774.	1.7	41
85	Caterpillar-induced nocturnal plant volatiles repel conspecific females. <i>Nature</i> , 2001, 410, 577-580.	27.8	842