W Owen Mcmillan

List of Publications by Year
in descending order

125 papers	7,737 citations	44042 48 h-index	66879 78 g-index
153 all docs	153 docs citations	153 times ranked	6321 citing authors

#	Article	IF	Citations
1	<i>optix</i> Drives the Repeated Convergent Evolution of Butterfly Wing Pattern Mimicry. Science, 2011, 333, 1137-1141.	6.0	431
2	Genomic architecture and introgression shape a butterfly radiation. Science, 2019, 366, 594-599.	6.0	365
3	Adaptive Introgression across Species Boundaries in Heliconius Butterflies. PLoS Genetics, 2012, 8, e1002752.	1.5	319
4	Diversification of complex butterfly wing patterns by repeated regulatory evolution of a <i>Wnt</i> ligand. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12632-12637.	3.3	244
5	A Conserved Supergene Locus Controls Colour Pattern Diversity in Heliconius Butterflies. PLoS Biology, 2006, 4, e303.	2.6	242
6	The gene cortex controls mimicry and crypsis in butterflies and moths. Nature, 2016, 534, 106-110.	13.7	212
7	Complex modular architecture around a simple toolkit of wing pattern genes. Nature Ecology and Evolution, 2017, 1, 52.	3.4	179
8	Selection-Driven Evolution of Emergent Dengue Virus. Molecular Biology and Evolution, 2003, 20, 1650-1658.	3.5	168
9	Phylogenetic Discordance at the Species Boundary: Comparative Gene Genealogies Among Rapidly Radiating Heliconius Butterflies. Molecular Biology and Evolution, 2002, 19, 2176-2190.	3.5	156
10	What initiates speciation in passion-vine butterflies?. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 8628-8633.	3.3	150
11	Metamorphosis of a Butterfly-Associated Bacterial Community. PLoS ONE, 2014, 9, e86995.	1.1	144
12	Macroevolutionary shifts of <i>WntA</i> function potentiate butterfly wing-pattern diversity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10701-10706.	3.3	137
13	Evolutionary Novelty in a Butterfly Wing Pattern through Enhancer Shuffling. PLoS Biology, 2016, 14, e1002353.	2.6	136
14	COLOR PATTERN EVOLUTION, ASSORTATIVE MATING, AND GENETIC DIFFERENTIATION IN BRIGHTLY COLORED BUTTERFLYFISHES (CHAETODONTIDAE). Evolution; International Journal of Organic Evolution, 1999, 53, 247-260.	1.1	126
15	Development and evolution on the wing. Trends in Ecology and Evolution, 2002, 17, 125-133.	4.2	122
16	Population genomics of parallel hybrid zones in the mimetic butterflies, <i>H. melpomene</i> and <i>H. erato</i>. Genome Research, 2014, 24, 1316-1333.	2.4	114
17	Polyphyly and gene flow between non-sibling Heliconius species. BMC Biology, 2006, 4, 11.	1.7	113
18	A Genetic Linkage Map of the Mimetic Butterfly Heliconius melpomene. Genetics, 2005, 171, 557-570.	1.2	111

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19	Rapid Rate of Control-Region Evolution in Pacific Butterflyfishes (Chaetodontidae). Journal of Molecular Evolution, 1997, 45, 473-484.	0.8	106
20	Molecular evolution of dengue 2 virus in Puerto Rico: positive selection in the viral envelope accompanies clade reintroduction. Journal of General Virology, 2006, 87, 885-893.	1.3	105
21	Wing patterning gene redefines the mimetic history of <i>Heliconius</i> butterflies. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 19666-19671.	3.3	104
22	MATE PREFERENCE ACROSS THE SPECIATION CONTINUUM IN A CLADE OF MIMETIC BUTTERFLIES. Evolution; International Journal of Organic Evolution, 2011, 65, 1489-1500.	1.1	101
23	Heliconius wing patterns: an evo-devo model for understanding phenotypic diversity. Heredity, 2006, 97, 157-167.	1.2	100
24	Genomic Hotspots for Adaptation: The Population Genetics of MÃ¼llerian Mimicry in Heliconius erato. PLoS Genetics, 2010, 6, e1000796.	1.5	99
25	Genomic Hotspots for Adaptation: The Population Genetics of MÃ¼llerian Mimicry in the Heliconius melpomene Clade. PLoS Genetics, 2010, 6, e1000794.	1.5	97
26	patternize: An R package for quantifying colour pattern variation. Methods in Ecology and Evolution, 2018, 9, 390-398.	2.2	96
27	Natural Selection and Genetic Diversity in the Butterfly <i>Heliconius melpomene</i>. Genetics, 2016, 203, 525-541.	1.2	94
28	Historical demography of Mullerian mimicry in the neotropical Heliconius butterflies. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 9704-9709.	3.3	90
29	ButterflyBase: a platform for lepidopteran genomics. Nucleic Acids Research, 2007, 36, D582-D587.	6.5	90
30	No evidence for maintenance of a sympatric<i>Heliconius</i>species barrier by chromosomal inversions. Evolution Letters, 2017, 1, 138-154.	1.6	90
31	Sex-specific migration patterns of hawksbill turtles breeding at Mona Island, Puerto Rico. Endangered Species Research, 2008, 4, 85-94.	1.2	86
32	Gene expression underlying adaptive variation in<i>Heliconius</i>wing patterns: non-modular regulation of overlapping<i>cinnabar</i>and<i>vermilion</i>prepatterns. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 37-46.	1.2	82
33	Convergent Evolution in the Genetic Basis of MuÌˆllerian Mimicry in Heliconius Butterflies. Genetics, 2008, 180, 1567-1577.	1.2	79
34	Genetic dissection of assortative mating behavior. PLoS Biology, 2019, 17, e2005902.	2.6	79
35	Male sex pheromone components in <i> Heliconius</i> butterflies released by the androconia affect female choice. PeerJ, 2017, 5, e3953.	0.9	79
36	The genetic basis of an adaptive radiation: warning colour in two Heliconius species. Proceedings of the Royal Society B: Biological Sciences, 1997, 264, 1167-1175.	1.2	78

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37	What can hybrid zones tell us about speciation? The case of<i>Heliconius erato</i>and<i>H. himera</i>(Lepidoptera: Nymphalidae). Biological Journal of the Linnean Society, 1996, 59, 221-242.	0.7	76
38	Genetic mosaic in a marine species flock. Molecular Ecology, 2003, 12, 2963-2973.	2.0	75
39	Genomic architecture of adaptive color pattern divergence and convergence in <i>Heliconius</i> butterflies. Genome Research, 2013, 23, 1248-1257.	2.4	72
40	Evolution of novel mimicry rings facilitated by adaptive introgression in tropical butterflies. Molecular Ecology, 2017, 26, 5160-5172.	2.0	70
41	Patterns of Z chromosome divergence among <i>Heliconius</i> species highlight the importance of historical demography. Molecular Ecology, 2018, 27, 3852-3872.	2.0	69
42	A transgenic male-only strain of the New World screwworm for an improved control program using the sterile insect technique. BMC Biology, 2016, 14, 72.	1.7	66
43	Dispersal, recruitment and migratory behaviour in a hawksbill sea turtle aggregation. Molecular Ecology, 2008, 17, 839-853.	2.0	65
44	On the spatial scale of dispersal in coral reef fishes. Molecular Ecology, 2012, 21, 5675-5688.	2.0	62
45	Butterfly genomics eclosing. Heredity, 2008, 100, 150-157.	1.2	60
46	Carrion flyâ€derived <scp>DNA</scp> metabarcoding is an effective tool for mammal surveys: Evidence from a known tropical mammal community. Molecular Ecology Resources, 2017, 17, e133-e145.	2.2	60
47	First-generation linkage map of the warningly colored butterfly Heliconius erato. Heredity, 2005, 94, 408-417.	1.2	58
48	Transcriptome analysis reveals novel patterning and pigmentation genes underlying Heliconius butterfly wing pattern variation. BMC Genomics, 2012, 13, 288.	1.2	56
49	Interplay between Developmental Flexibility and Determinism in the Evolution of Mimetic Heliconius Wing Patterns. Current Biology, 2019, 29, 3996-4009.e4.	1.8	55
50	Localization of MuÌˆllerian Mimicry Genes on a Dense Linkage Map of Heliconius erato. Genetics, 2006, 173, 735-757.	1.2	53
51	Phylogeography and molecular evolution of dengue 2 in the Caribbean basin, 1981â€“2000. Virology, 2004, 324, 48-59.	1.1	52
52	Hybridization and introgression in New World red mangroves,<i>Rhizophora</i>(Rhizophoraceae). American Journal of Botany, 2010, 97, 945-957.	0.8	52
53	Genomic atolls of differentiation in coral reef fishes (<i><scp>H</scp>ypoplectrus</i> spp.,) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.0	50
54	Conservatism and novelty in the genetic architecture of adaptation in Heliconius butterflies. Heredity, 2015, 114, 515-524.	1.2	50

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55	Patterns of genetic diversity and biogeographical history of the tropical wetland tree, Pterocarpus officinalis (Jacq.), in the Caribbean basin. Molecular Ecology, 2002, 11, 675-683.	2.0	48
56	Dissecting comimetic radiations in<i>Heliconius</i>reveals divergent histories of convergent butterflies. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7365-7370.	3.3	47
57	Haplotype tagging reveals parallel formation of hybrid races in two butterfly species. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	46
58	Molecular evolution and phylogeny of dengue type 4 virus in the caribbean. Virology, 2003, 306, 126-134.	1.1	44
59	Inter-chromosomal coupling between vision and pigmentation genes during genomic divergence. Nature Ecology and Evolution, 2019, 3, 657-667.	3.4	43
60	Cortex cis-regulatory switches establish scale colour identity and pattern diversity in Heliconius. ELife, 2021, 10, .	2.8	40
61	Multi-Allelic Major Effect Genes Interact with Minor Effect QTLs to Control Adaptive Color Pattern Variation in Heliconius erato. PLoS ONE, 2013, 8, e57033.	1.1	38
62	Divergence with gene flow across a speciation continuum of Heliconius butterflies. BMC Evolutionary Biology, 2015, 15, 204.	3.2	38
63	Genomic tools and cDNA derived markers for butterflies. Molecular Ecology, 2005, 14, 2883-2897.	2.0	37
64	Developmental plasticity shapes social traits and selection in a facultatively eusocial bee. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13615-13625.	3.3	37
65	Evolution: Mimicry meets the mitochondrion. Current Biology, 1996, 6, 937-940.	1.8	35
66	Contrasting demographic history and gene flow patterns of two mangrove species on either side of the C entral A merican I sthmus. Ecology and Evolution, 2015, 5, 3486-3499.	0.8	35
67	Male pheromone composition depends on larval but not adult diet in <i>Heliconius melpomene</i>. Ecological Entomology, 2019, 44, 397-405.	1.1	35
68	The appearance of mimetic <i>Heliconius</i> butterflies to predators and conspecifics. Evolution; International Journal of Organic Evolution, 2018, 72, 2156-2166.	1.1	33
69	ESTIMATING THE MATING BEHAVIOR OF A PAIR OF HYBRIDIZING <i>HELICONIUS</i> SPECIES IN THE WILD. Evolution; International Journal of Organic Evolution, 1998, 52, 503-510.	1.1	32
70	Specific Gene Disruption in the Major Livestock Pests Cochliomyia hominivorax and Lucilia cuprina Using CRISPR/Cas9. G3: Genes, Genomes, Genetics, 2019, 9, 3045-3055.	0.8	32
71	Characterization of microsatellite loci in neotropical Heliconius butterflies. Molecular Ecology Notes, 2002, 2, 398-401.	1.7	31
72	Species specificity and intraspecific variation in the chemical profiles of <i>Heliconius</i> butterflies across a large geographic range. Ecology and Evolution, 2020, 10, 3895-3918.	0.8	31

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73	Rampant Genome-Wide Admixture across the<i>Heliconius</i>Radiation. Genome Biology and Evolution, 2021, 13, .	1.1	31
74	Population genomics of local adaptation versus speciation in coral reef fishes (Hypoplectrus spp,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.8	30
75	A novel terpene synthase controls differences in anti-aphrodisiac pheromone production between closely related Heliconius butterflies. PLoS Biology, 2021, 19, e3001022.	2.6	29
76	Maternal invasion history of Aedes aegypti and Aedes albopictus into the Isthmus of Panama: Implications for the control of emergent viral disease agents. PLoS ONE, 2018, 13, e0194874.	1.1	28
77	Divergence of chemosensing during the early stages of speciation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16438-16447.	3.3	25
78	Conserved microbiota among young Heliconius butterfly species. PeerJ, 2018, 6, e5502.	0.9	25
79	Visual mate preference evolution during butterfly speciation is linked to neural processing genes. Nature Communications, 2020, 11, 4763.	5.8	24
80	Neural divergence and hybrid disruption between ecologically isolated<i>Heliconius</i>butterflies. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	24
81	Conservation and flexibility in the gene regulatory landscape of heliconiine butterfly wings. EvoDevo, 2019, 10, 15.	1.3	22
82	From Patterning Genes to Process: Unraveling the Gene Regulatory Networks That Pattern Heliconius Wings. Frontiers in Ecology and Evolution, 2020, 8, .	1.1	22
83	Estimating the Mating Behavior of a Pair of Hybridizing Heliconius Species in the Wild. Evolution; International Journal of Organic Evolution, 1998, 52, 503.	1.1	21
84	New microsatellite resources for groupers (Serranidae). Molecular Ecology Notes, 2006, 6, 813-817.	1.7	21
85	Phylogeography of <i>Heliconius cydno</i> and its closest relatives: disentangling their origin and diversification. Molecular Ecology, 2014, 23, 4137-4152.	2.0	21
86	The Genomics of an Adaptive Radiation: Insights Across the Heliconius Speciation Continuum. Advances in Experimental Medicine and Biology, 2014, 781, 249-271.	0.8	20
87	Sharp genetic discontinuity across a unimodal <i>Heliconius</i> hybrid zone. Molecular Ecology, 2012, 21, 5778-5794.	2.0	19
88	A major locus controls a biologically active pheromone component in <i>Heliconius melpomene</i>. Evolution; International Journal of Organic Evolution, 2020, 74, 349-364.	1.1	19
89	<i>Heliconius</i> Butterflies Host Characteristic and Phylogenetically Structured Adult-Stage Microbiomes. Applied and Environmental Microbiology, 2020, 86, .	1.4	19
90	Environment-dependent attack rates of cryptic and aposematic butterflies. Environmental Epigenetics, 2018, 64, 663-669.	0.9	18

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91	Selection and isolation define a heterogeneous divergence landscape between hybridizing <i>Heliconius</i> butterflies. Evolution; International Journal of Organic Evolution, 2021, 75, 2251-2268.	1.1	18
92	Behavioral and Physiological Differences between Two Parapatric Heliconius Species1. Biotropica, 1999, 31, 661-668.	0.8	17
93	Development of six microsatellite loci for black mangrove (Avicennia germinans). Molecular Ecology Notes, 2006, 6, 692-694.	1.7	17
94	Natural experiments and long-term monitoring are critical to understand and predict marine hostâ€“microbe ecology and evolution. PLoS Biology, 2021, 19, e3001322.	2.6	17
95	The influence of spatial scale on the genetic structure of a widespread tropical wetland tree, Pterocarpus officinalis (Fabaceae). Conservation Genetics, 2006, 7, 251-266.	0.8	16
96	An early female lethal system of the New World screwworm, Cochliomyia hominivorax, for biotechnology-enhanced SIT. BMC Genetics, 2020, 21, 143.	2.7	16
97	Development and characterization of 11 microsatellite loci for the Mona Island iguana (<i>Cyclura) Tj ETQq1 1 0.784314 rgBT /Overlo	2.2	12
98	Spatial Ecology of the Endangered Mona Island Iguana Cyclura cornuta stejnegeri: Does Territorial Behavior Regulate Density?. Herpetological Monographs, 2010, 24, 86-110.	1.1	12
99	Phenotypic plasticity in chemical defence of butterflies allows usage of diverse host plants. Biology Letters, 2021, 17, 20200863.	1.0	12
100	Divergence in<i>Heliconius</i>flight behaviour is associated with local adaptation to different forest structures. Journal of Animal Ecology, 2022, 91, 727-737.	1.3	12
101	A new subspecies in a Heliconius butterfly adaptive radiation (Lepidoptera: Nymphalidae). Zoological Journal of the Linnean Society, 2017, 180, 805-818.	1.0	11
102	Movement of a <i>Heliconius</i> hybrid zone over 30Âyears: A Bayesian approach. Journal of Evolutionary Biology, 2019, 32, 974-983.	0.8	11
103	The evolution of microendemism in a reef fish (<i>Hypoplectrus maya</i>). Molecular Ecology, 2019, 28, 2872-2885.	2.0	10
104	Rapid radiation in a highly diverse marine environment. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	10
105	Spatial ecology of the Mona Island iguana Cyclura cornuta stejnegeri in an undisturbed environment. Applied Herpetology, 2007, 4, 347-355.	0.5	9
106	Extreme sequence divergence between mitochondrial genomes of two subspecies of White-breasted Wood-wren (<i>Henicorhina leucosticta,</i>Cabanis, 1847) from western and central PanamÃ¡. Mitochondrial DNA, 2016, 27, 956-957.	0.6	9
107	Genomics at the evolving species boundary. Current Opinion in Insect Science, 2016, 13, 7-15.	2.2	9
108	Clustering of loci controlling species differences in male chemical bouquets of sympatric <i>Heliconius</i> butterflies. Ecology and Evolution, 2021, 11, 89-107.	0.8	9

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109	Isolation and characterization of novel microsatellites from the critically endangered hawksbill sea turtle (<i>Eretmochelys imbricata</i>). Molecular Ecology Resources, 2008, 8, 1098-1101.	2.2	8
110	Shifting balances in the weighting of sensory modalities are predicted by divergence in brain morphology in incipient species of Heliconius butterflies. Animal Behaviour, 2022, 185, 83-90.	0.8	8
111	Partial Complementarity of the Mimetic Yellow Bar Phenotype in Heliconius Butterflies. PLoS ONE, 2012, 7, e48627.	1.1	7
112	Complete mitochondrial genomes of the New World jacanas:Jacana spinosaandJacana jacana. Mitochondrial DNA, 2016, 27, 764-765.	0.6	7
113	Comparative Transcriptomics Provides Insights into Reticulate and Adaptive Evolution of a Butterfly Radiation. Genome Biology and Evolution, 2019, 11, 2963-2975.	1.1	7
114	Inheritance, distribution and genetic differentiation of a color polymorphism in Panamanian populations of the tortoise beetle, Chelymorpha alternans (Coleoptera: Chrysomelidae). Heredity, 2019, 122, 558-569.	1.2	7
115	Evolutionary and ecological processes influencing chemical defense variation in an aposematic and mimetic <i>Heliconius</i> butterfly. PeerJ, 2021, 9, e11523.	0.9	7
116	A large deletion at the cortex locus eliminates butterfly wing patterning. G3: Genes, Genomes, Genetics, 2022, 12, .	0.8	6
117	Complete mitochondrial genomes of three Neotropical sleeper gobies: <i>Eleotris amblyopsis</i>, <i>E. picta</i> and <i>Hemieleotris latifasciata</i> (Gobiiformes: Eleotridae). Mitochondrial DNA Part B: Resources, 2017, 2, 747-750.	0.2	4
118	Estimating the age of<i>Heliconius</i>butterflies from calibrated photographs. PeerJ, 2017, 5, e3821.	0.9	4
119	Mitochondrial genome organization of the Ochre-bellied Flycatcher,<i>Mionectes oleagineus</i>. Mitochondrial DNA, 2016, 27, 890-891.	0.6	3
120	Aggressive mimicry in a coral reef fish: The prey's view. Ecology and Evolution, 2020, 10, 12990-13010.	0.8	3
121	Effect of the Central American Isthmus on gene flow and divergence of the American crocodile () Tj ETQq1 1 0.784314 rgBT /Overlock 1	1.1	3
122	Extreme mitogenomic divergence between two syntopic specimens of <i>Arremon aurantiirostris</i> (Aves: Emberizidae) in central Panama suggests possible cryptic species. Mitochondrial DNA Part A: DNA Mapping, Sequencing, and Analysis, 2016, 27, 3451-3453.	0.7	2
123	The evolution of adult pollen feeding did not alter postembryonic growth in <i>Heliconius</i> butterflies. Ecology and Evolution, 2022, 12, .	0.8	2
124	Mitogenomic divergence between three pairs of putative geminate fishes from Panama. Mitochondrial DNA Part B: Resources, 2018, 3, 1-5.	0.2	1
125	Balanced polymorphisms and their divergence in a <i>Heliconius</i> butterfly. Ecology and Evolution, 2021, 11, 18319-18330.	0.8	1