James H Marden

List of Publications by Year
in descending order

71 papers	4,965 citations	101543 36 h-index	110387 64 g-index
73 all docs	73 docs citations	73 times ranked	5051 citing authors

#	Article	IF	Citations
1	Rapid transcriptome characterization for a nonmodel organism using 454 pyrosequencing. Molecular Ecology, 2008, 17, 1636-1647.	3.9	624
2	Maximum Lift Production During Takeoff in Flying Animals. Journal of Experimental Biology, 1987, 130, 235-258.	1.7	356
3	Escalated damselfly territorial contests are energetic wars of attrition. Animal Behaviour, 1990, 39, 954-959.	1.9	285
4	Unifying constructal theory for scale effects in running, swimming and flying. Journal of Experimental Biology, 2006, 209, 238-248.	1.7	266
5	Two genomes of highly polyphagous lepidopteran pests (Spodoptera frugiperda, Noctuidae) with different host-plant ranges. Scientific Reports, 2017, 7, 11816.	3.3	242
6	Bodybuilding Dragonflies: Costs and Benefits of Maximizing Flight Muscle. Physiological Zoology, 1989, 62, 505-521.	1.5	211
7	A candidate locus for variation in dispersal rate in a butterfly metapopulation. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 2449-2456.	2.6	198
8	Conditional tradeoffs between aging and organismal performance of Indy long-lived mutant flies. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3369-3373.	7.1	186
9	Variability in the Size, Composition, and Function of Insect Flight Muscles. Annual Review of Physiology, 2000, 62, 157-178.	13.1	184
10	Aerial Predation and Butterfly Design: How Palatability, Mimicry, and the Need for Evasive Flight Constrain Mass Allocation. American Naturalist, 1991, 138, 15-36.	2.1	170
11	Flight metabolic rate andPgigenotype influence butterfly dispersal rate in the field. Ecology, 2009, 90, 2223-2232.	3.2	159
12	Assessment of energy reserves by damselflies engaged in aerial contests for mating territories. Animal Behaviour, 1994, 48, 1023-1030.	1.9	121
13	Mapping Determinants of Variation in Energy Metabolism, Respiration and Flight in Drosophila. Genetics, 2003, 165, 623-635.	2.9	106
14	Patterns of mass gain and sexual dimorphism in adult dragonflies (Insecta: Odonata). Canadian Journal of Zoology, 1991, 69, 1156-1163.	1.0	100
15	Molecules, muscles, and machines: Universal performance characteristics of motors. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 4161-4166.	7.1	99
16	Surface-Skimming Stoneflies: A Possible Intermediate Stage in Insect Flight Evolution. Science, 1994, 266, 427-430.	12.6	89
17	Territorial and mating success of dragonflies that vary in muscle power output and presence of gregarine gut parasites. Animal Behaviour, 2004, 68, 857-865.	1.9	79
18	A Pathway Analysis of Melanin Patterning in a Hemimetabolous Insect. Genetics, 2016, 203, 403-413.	2.9	69

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19	The constructal unification of biological and geophysical design. Physics of Life Reviews, 2009, 6, 85-102.	2.8	68
20	Molecular phylogenetic analysis of evolutionary trends in stonefly wing structure and locomotor behavior. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 13178-13183.	7.1	65
21	Metabolic syndrome and obesity in an insect. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 18805-18809.	7.1	64
22	Origin and diversification of wings: Insights from a neopteran insect. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15946-15951.	7.1	64
23	Functional genomics of life history variation in a butterfly metapopulation. Molecular Ecology, 2011, 20, 1813-1828.	3.9	63
24	Quantitative and evolutionary biology of alternative splicing: how changing the mix of alternative transcripts affects phenotypic plasticity and reaction norms. Heredity, 2008, 100, 111-120.	2.6	61
25	Nature's inordinate fondness for metabolic enzymes: why metabolic enzyme loci are so frequently targets of selection. Molecular Ecology, 2013, 22, 5743-5764.	3.9	59
26	Alternative splicing, muscle contraction and intraspecific variation: associations between troponin T transcripts, Ca2+ sensitivity and the force and power output of dragonfly flight muscles during oscillatory contraction. Journal of Experimental Biology, 2001, 204, 3457-3470.	1.7	52
27	Ecological genomics of tropical trees: how local population size and allelic diversity of resistance genes relate to immune responses, cosusceptibility to pathogens, and negative density dependence. Molecular Ecology, 2017, 26, 2498-2513.	3.9	50
28	Alternative splicing, muscle calcium sensitivity, and the modulation of dragonfly flight performance. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 15304-15309.	7.1	48
29	Scaling of maximum net force output by motors used for locomotion. Journal of Experimental Biology, 2005, 208, 1653-1664.	1.7	47
30	Mite not make it home: tracheal mites reduce the safety margin for oxygen delivery of flying honeybees. Journal of Experimental Biology, 2001, 204, 805-14.	1.7	43
31	A hierarchical analysis of the scaling of force and power production by dragonfly flight motors. Journal of Experimental Biology, 2004, 207, 767-776.	1.7	41
32	Nucleotide Polymorphism at a Gene (Pgi) under Balancing Selection in a Butterfly Metapopulation. Molecular Biology and Evolution, 2010, 27, 267-281.	8.9	41
33	Aerial performance of Drosophila melanogaster from populations selected for upwind flight ability. Journal of Experimental Biology, 1997, 200, 2747-2755.	1.7	41
34	Locomotor performance of insects with rudimentary wings. Nature, 1995, 377, 332-334.	27.8	40
35	GENETIC VARIATION IN HIF SIGNALING UNDERLIES QUANTITATIVE VARIATION IN PHYSIOLOGICAL AND LIFE-HISTORY TRAITS WITHIN LOWLAND BUTTERFLY POPULATIONS. Evolution; International Journal of Organic Evolution, 2013, 67, 1105-1115.	2.3	39
36	Alternative splicing, muscle contraction and intraspecific variation: associations between troponin T transcripts, Ca(2+) sensitivity and the force and power output of dragonfly flight muscles during oscillatory contraction. Journal of Experimental Biology, 2001, 204, 3457-70.	1.7	38

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37	Weight and nutrition affect pre-mRNA splicing of a muscle gene associated with performance, energetics and life history. Journal of Experimental Biology, 2008, 211, 3653-3660.	1.7	35
38	Rowing locomotion by a stonefly that possesses the ancestral pterygote condition of co-occurring wings and abdominal gills. Biological Journal of the Linnean Society, 0, 79, 341-349.	1.6	31
39	Enhanced heat tolerance of viral-infected aphids leads to niche expansion and reduced interspecific competition. Nature Communications, 2020, 11, 1184.	12.8	31
40	Surfaceâ€Skimming Stoneflies and Mayflies: The Taxonomic and Mechanical Diversity of Twoâ€Dimensional Aerodynamic Locomotion. Physiological and Biochemical Zoology, 2000, 73, 751-764.	1.5	30
41	Maximum Load-Lifting and Induced Power Output of Harrisâ€™ Hawks are General Functions of Flight Muscle Mass. Journal of Experimental Biology, 1990, 149, 511-514.	1.7	28
42	Scaling Laws in Robotics. Procedia Computer Science, 2011, 7, 250-252.	2.0	27
43	Body weight-dependent troponin T alternative splicing is evolutionarily conserved from insects to mammals and is partially impaired in skeletal muscle of obese rats. Journal of Experimental Biology, 2011, 214, 1523-1532.	1.7	26
44	Filling Adeno-Associated Virus Capsids: Estimating Success by Cryo-Electron Microscopy. Human Gene Therapy, 2019, 30, 1449-1460.	2.7	25
45	Resistant and susceptible cacao genotypes exhibit defense gene polymorphism and unique early responses to Phytophthora megakarya inoculation. Plant Molecular Biology, 2019, 99, 499-516.	3.9	24
46	Cascading effects of host plant inbreeding on the larval growth, muscle molecular composition, and flight capacity of an adult herbivorous insect. Functional Ecology, 2015, 29, 328-337.	3.6	23
47	Plecopteran Surface-Skimming and Insect Flight Evolution. Science, 1995, 270, 1684-1684.	12.6	22
48	Gene Expression Modularity Reveals Footprints of Polygenic Adaptation in Theobroma cacao. Molecular Biology and Evolution, 2020, 37, 110-123.	8.9	22
49	Aerial performance of Drosophila melanogaster from populations selected for upwind flight ability. Journal of Experimental Biology, 1997, 200, 2747-55.	1.7	20
50	Inbreeding compromises host plant defense gene expression and improves herbivore survival. Plant Signaling and Behavior, 2015, 10, e998548.	2.4	19
51	Parasites, proteomics and performance: effects of gregarine gut parasites on dragonfly flight muscle composition and function. Journal of Experimental Biology, 2007, 210, 4298-4306.	1.7	15
52	Insights into the Development and Evolution of Exaggerated Traits Using De Novo Transcriptomes of Two Species of Horned Scarab Beetles. PLoS ONE, 2014, 9, e88364.	2.5	15
53	Widely distributed variation in tolerance to Phytophthora palmivora in four genetic groups of cacao. Tree Genetics and Genomes, 2020, 16, 1.	1.6	15
54	REANALYSIS AND EXPERIMENTAL EVIDENCE INDICATE THAT THE EARLIEST TRACE FOSSIL OF A WINGED INSECT WAS A SURFACE-SKIMMING NEOPTERAN. Evolution; International Journal of Organic Evolution, 2013, 67, 274-280.	2.3	11

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55	Resistance Genes Affect How Pathogens Maintain Plant Abundance and Diversity. American Naturalist, 2020, 196, 472-486.	2.1	11
56	Almost airborne. Nature, 1997, 385, 403-404.	27.8	9
57	Metabolic Syndrome in Insects Triggered by Gut Microbes. Journal of Diabetes Science and Technology, 2007, 1, 794-796.	2.2	9
58	Enzyme polymorphism, oxygen and injury: a lipidomic analysis of flight-induced oxidative damage in a SDH-polymorphic insect. Journal of Experimental Biology, 2018, 221, .	1.7	8
59	Growth, Differential Survival, and Shifting Sex Ratio of Free-Living <I>Libellula pulchella</I> (Odonata: Libellulidae) Dragonflies During Adult Maturation. Annals of the Entomological Society of America, 2000, 93, 452-458.	2.5	7
60	Host plant defense produces species specific alterations to flight muscle protein structure and flight-related fitness traits of two armyworms. Journal of Experimental Biology, 2020, 223, .	1.7	6
61	Alleles in metabolic and oxygenâ€sensing genes are associated with antagonistic pleiotropic effects on life history traits and population fitness in an ecological model insect*. Evolution; International Journal of Organic Evolution, 2021, 75, 116-129.	2.3	6
62	REPLY TO â€œCOMMENT ON MARDEN (2013) REGARDING THE INTERPRETATION OF THE EARLIEST TRACE FOSSIL OF A WINGED INSECTâ€• Evolution; International Journal of Organic Evolution, 2013, 67, 2150-2153.	2.3	4
63	Covariation in abscission force and terminal velocity of windborne sibling seeds alters longâ€distance dispersal projections. Methods in Ecology and Evolution, 2015, 6, 593-599.	5.2	4
64	Evolution and physiology of flight in aquatic insects.. , 2008, , 230-249.		4
65	Discovery of antitumor lectins from rainforest tree root transcriptomes. PLoS ONE, 2020, 15, e0229467.	2.5	3
66	Functional and Ecological Effects of Isoform Variation in Insect Flight Muscle. , 2006, , 214-229.		2
67	Antipredator behavior by a nesting hummingbird in response to a caterpillar with eyespots. Ecology, 2019, 100, e02582.	3.2	0
68	Discovery of antitumor lectins from rainforest tree root transcriptomes. , 2020, 15, e0229467.		0
69	Discovery of antitumor lectins from rainforest tree root transcriptomes. , 2020, 15, e0229467.		0
70	Discovery of antitumor lectins from rainforest tree root transcriptomes. , 2020, 15, e0229467.		0
71	Discovery of antitumor lectins from rainforest tree root transcriptomes. , 2020, 15, e0229467.		0