John M Marshall

List of Publications by Year
in descending order

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75 papers	3,607 citations	126907 33 h-index	182427 51 g-index
93 all docs	93 docs citations	93 times ranked	2256 citing authors

#	Article	IF	Citations
1	THE IMPORTANCE OF MOSQUITO BEHAVIOURAL ADAPTATIONS TO MALARIA CONTROL IN AFRICA. Evolution; International Journal of Organic Evolution, 2013, 67, 1218-1230.	2.3	253
2	Transforming insect population control with precision guided sterile males with demonstration inÂflies. Nature Communications, 2019, 10, 84.	12.8	160
3	Development of a confinable gene drive system in the human disease vector Aedes aegypti. ELife, 2020, 9, .	6.0	156
4	A Synthetic Gene Drive System for Local, Reversible Modification and Suppression of Insect Populations. Current Biology, 2013, 23, 671-677.	3.9	150
5	Overcoming evolved resistance to population-suppressing homing-based gene drives. Scientific Reports, 2017, 7, 3776.	3.3	142
6	Consequences of resistance evolution in a Cas9-based sex conversion-suppression gene drive for insect pest management. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6189-6194.	7.1	130
7	Efficient population modification gene-drive rescue system in the malaria mosquito Anopheles stephensi. Nature Communications, 2020, 11, 5553.	12.8	110
8	Synthetically engineered <i>Medea</i> gene drive system in the worldwide crop pest <i>Drosophila suzukii</i>. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4725-4730.	7.1	109
9	Experimental population modification of the malaria vector mosquito, Anopheles stephensi. PLoS Genetics, 2019, 15, e1008440.	3.5	101
10	Novel Synthetic <i>Medea</i> Selfish Genetic Elements Drive Population Replacement in <i>Drosophila</i>; a Theoretical Exploration of <i>Medea</i>-Dependent Population Suppression. ACS Synthetic Biology, 2014, 3, 915-928.	3.8	98
11	Developing an expanded vector control toolbox for malaria elimination. BMJ Global Health, 2017, 2, e000211.	4.7	93
12	Confinement of gene drive systems to local populations: A comparative analysis. Journal of Theoretical Biology, 2012, 294, 153-171.	1.7	87
13	Combating mosquito-borne diseases using genetic control technologies. Nature Communications, 2021, 12, 4388.	12.8	76
14	Rules of the road for insect gene drive research and testing. Nature Biotechnology, 2017, 35, 716-718.	17.5	74
15	Suppressing mosquito populations with precision guided sterile males. Nature Communications, 2021, 12, 5374.	12.8	73
16	Climate and the Timing of Imported Cases as Determinants of the Dengue Outbreak in Guangzhou, 2014: Evidence from a Mathematical Model. PLoS Neglected Tropical Diseases, 2016, 10, e0004417.	3.0	72
17	Engineered Reciprocal Chromosome Translocations Drive High Threshold, Reversible Population Replacement in Drosophila. ACS Synthetic Biology, 2018, 7, 1359-1370.	3.8	72
18	Can CRISPR-Based Gene Drive Be Confined in the Wild? A Question for Molecular and Population Biology. ACS Chemical Biology, 2018, 13, 424-430.	3.4	71

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19	The effect of gene drive on containment of transgenic mosquitoes. Journal of Theoretical Biology, 2009, 258, 250-265.	1.7	70
20	Going beyond personal protection against mosquito bites to eliminate malaria transmission: population suppression of malaria vectors that exploit both human and animal blood. BMJ Global Health, 2017, 2, e000198.	4.7	69
21	Core commitments for field trials of gene drive organisms. Science, 2020, 370, 1417-1419.	12.6	67
22	A transcomplementing gene drive provides a flexible platform for laboratory investigation and potential field deployment. Nature Communications, 2020, 11, 352.	12.8	61
23	Toward the Definition of Efficacy and Safety Criteria for Advancing Gene Drive-Modified Mosquitoes to Field Testing. Vector-Borne and Zoonotic Diseases, 2020, 20, 237-251.	1.5	60
24	<i>Semele</i>: A Killer-Male, Rescue-Female System for Suppression and Replacement of Insect Disease Vector Populations. Genetics, 2011, 187, 535-551.	2.9	55
25	Inherently confinable split-drive systems in Drosophila. Nature Communications, 2021, 12, 1480.	12.8	55
26	Measuring, manipulating and exploiting behaviours of adult mosquitoes to optimise malaria vector control impact. BMJ Global Health, 2017, 2, e000212.	4.7	54
27	Active Genetic Neutralizing Elements for Halting or Deleting Gene Drives. Molecular Cell, 2020, 80, 246-262.e4.	9.7	54
28	MGD<scp>riv</scp>E: A modular simulation framework for the spread of gene drives through spatially explicit mosquito populations. Methods in Ecology and Evolution, 2020, 11, 229-239.	5.2	53
29	Progress towards engineering gene drives for population control. Journal of Experimental Biology, 2020, 223, .	1.7	51
30	Genome-wide divergence among invasive populations of Aedes aegypti in California. BMC Genomics, 2019, 20, 204.	2.8	44
31	Key traveller groups of relevance to spatial malaria transmission: a survey of movement patterns in four sub-Saharan African countries. Malaria Journal, 2016, 15, 200.	2.3	43
32	Mathematical models of human mobility of relevance to malaria transmission in Africa. Scientific Reports, 2018, 8, 7713.	3.3	43
33	Inverse Medea as a Novel Gene Drive System for Local Population Replacement: A Theoretical Analysis. Journal of Heredity, 2011, 102, 336-341.	2.4	42
34	A confinable home-and-rescue gene drive for population modification. ELife, 2021, 10, .	6.0	42
35	Gene Drive Strategies for Population Replacement. , 2016, , 169-200.		40
36	Perspectives of people in Mali toward genetically-modified mosquitoes for malaria control. Malaria Journal, 2010, 9, 128.	2.3	39

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37	Winning the Tug-of-War Between Effector Gene Design and Pathogen Evolution in Vector Population Replacement Strategies. Frontiers in Genetics, 2019, 10, 1072.	2.3	39
38	GENERAL PRINCIPLES OF SINGLEâ€CONSTRUCT CHROMOSOMAL GENE DRIVE. Evolution; International Journal of Organic Evolution, 2012, 66, 2150-2166.	2.3	37
39	Quantifying the mosquitoâ€™s sweet tooth: modelling the effectiveness of attractive toxic sugar baits (ATSB) for malaria vector control. Malaria Journal, 2013, 12, 291.	2.3	37
40	Recommendations for Laboratory Containment and Management of Gene Drive Systems in Arthropods. Vector-Borne and Zoonotic Diseases, 2018, 18, 2-13.	1.5	37
41	Is outdoor vector control needed for malaria elimination? An individual-based modelling study. Malaria Journal, 2017, 16, 266.	2.3	32
42	The interplay of climate, intervention and imported cases as determinants of the 2014 dengue outbreak in Guangzhou. PLoS Neglected Tropical Diseases, 2017, 11, e0005701.	3.0	31
43	MGDrivE 2: A simulation framework for gene drive systems incorporating seasonality and epidemiological dynamics. PLoS Computational Biology, 2021, 17, e1009030.	3.2	28
44	Attacking the mosquito on multiple fronts: Insights from the Vector Control Optimization Model (VCOM) for malaria elimination. PLoS ONE, 2017, 12, e0187680.	2.5	28
45	Modeling confinement and reversibility of threshold-dependent gene drive systems in spatially-explicit Aedes aegypti populations. BMC Biology, 2020, 18, 50.	3.8	27
46	Medusa: A Novel Gene Drive System for Confined Suppression of Insect Populations. PLoS ONE, 2014, 9, e102694.	2.5	27
47	Estimating the potential impact of Attractive Targeted Sugar Baits (ATSBs) as a new vector control tool for Plasmodium falciparum malaria. Malaria Journal, 2021, 20, 151.	2.3	25
48	The Hitchhiking Parasite: Why Human Movement Matters to Malaria Transmission and What We Can Do About It. Trends in Parasitology, 2016, 32, 752-755.	3.3	21
49	Engineered reproductively isolated species drive reversible population replacement. Nature Communications, 2021, 12, 3281.	12.8	21
50	Reversing insecticide resistance with allelic-drive in Drosophila melanogaster. Nature Communications, 2022, 13, 291.	12.8	21
51	Vector bionomics and vectorial capacity as emergent properties of mosquito behaviors and ecology. PLoS Computational Biology, 2020, 16, e1007446.	3.2	20
52	Gene drive strategies of pest control in agricultural systems: Challenges and opportunities. Evolutionary Applications, 2021, 14, 2162-2178.	3.1	17
53	Modelling optimum use of attractive toxic sugar bait stations for effective malaria vector control in Africa. Malaria Journal, 2015, 14, 492.	2.3	16
54	The toxin and antidote puzzle. Bioengineered Bugs, 2011, 2, 235-240.	1.7	15

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55	A spatial individual-based model predicting a great impact of copious sugar sources and resting sites on survival of Anopheles gambiae and malaria parasite transmission. Malaria Journal, 2015, 14, 59.	2.3	14
56	Application of the Relationship-Based Model to Engagement for Field Trials of Genetically Engineered Malaria Vectors. American Journal of Tropical Medicine and Hygiene, 2020, , .	1.4	13
57	Reply to â€˜Concerns about the feasibility of using â€œprecision guided sterile malesâ€•to control insectsâ€™. Nature Communications, 2019, 10, 3955.	12.8	11
58	Monitoring Needs for Gene Drive Mosquito Projects: Lessons From Vector Control Field Trials and Invasive Species. Frontiers in Genetics, 2021, 12, 780327.	2.3	11
59	Population modification strategies for malaria vector control are uniquely resilient to observed levels of gene drive resistance alleles. BioEssays, 2021, 43, 2000282.	2.5	9
60	Exploiting a Y chromosome-linked Cas9 for sex selection and gene drive. Nature Communications, 2021, 12, 7202.	12.8	9
61	Spatio-temporal associations between deforestation and malaria incidence in Lao PDR. ELife, 2021, 10, .	6.0	7
62	Translating gene drive science to promote linguistic diversity in community and stakeholder engagement. Global Public Health, 2020, 15, 1551-1565.	2.0	6
63	New genotype invasion of dengue virus serotype 1 drove massive outbreak in Guangzhou, China. Parasites and Vectors, 2021, 14, 126.	2.5	6
64	A branching process for the early spread of a transposable element in a diploid population. Journal of Mathematical Biology, 2008, 57, 811-840.	1.9	5
65	Household-level risk factors for Aedes aegypti pupal density in Guayaquil, Ecuador. Parasites and Vectors, 2021, 14, 458.	2.5	5
66	A Bayesian Heterogeneous Analysis of Variance Approach to Inferring Recent Selective Sweeps. Genetics, 2006, 173, 2357-2370.	2.9	4
67	Prediction of dengue annual incidence using seasonal climate variability in Bangladesh between 2000 and 2018. PLOS Global Public Health, 2022, 2, e0000047.	1.6	4
68	Estimating the elimination feasibility in the 'end game' of control efforts for parasites subjected to regular mass drug administration: Methods and their application to schistosomiasis. PLoS Neglected Tropical Diseases, 2018, 12, e0006794.	3.0	3
69	Target Product Profiles for Mosquito Gene Drives: Incorporating Insights From Mathematical Models. Frontiers in Tropical Diseases, 2022, 3, .	1.4	3
70	Population size estimation of seasonal forest-going populations in southern Lao PDR. Scientific Reports, 2021, 11, 14816.	3.3	1
71	Field Trials of Gene Drive Mosquitoes: Lessons from Releases of Genetically Sterile Males and Wolbachia-infected Mosquitoes. , 2021, , 21-41.		1
72	Vector bionomics and vectorial capacity as emergent properties of mosquito behaviors and ecology. , 2020, 16, e1007446.		0

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73	Vector bionomics and vectorial capacity as emergent properties of mosquito behaviors and ecology. , 2020, 16, e1007446.		0
74	Vector bionomics and vectorial capacity as emergent properties of mosquito behaviors and ecology. , 2020, 16, e1007446.		0
75	Vector bionomics and vectorial capacity as emergent properties of mosquito behaviors and ecology. , 2020, 16, e1007446.		0