Matthew B Thomas

List of Publications by Year
in descending order

122	9,173	38742 50	46799 89
papers	citations	h-index	g-index

127	127	127	7933
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Global threat to agriculture from invasive species. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7575-7579.	7.1	563
2	Influence of climate on malaria transmission depends on daily temperature variation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15135-15139.	7.1	443
3	Detecting the impact of temperature on transmission of Zika, dengue, and chikungunya using mechanistic models. PLoS Neglected Tropical Diseases, 2017, 11, e0005568.	3.0	430
4	Thermal biology in insect-parasite interactions. Trends in Ecology and Evolution, 2003, 18, 344-350.	8.7	396
5	Understanding the link between malaria risk and climate. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13844-13849.	7.1	355
6	Thermal biology of mosquitoâ€borne disease. Ecology Letters, 2019, 22, 1690-1708.	6.4	349
7	Natural enemy diversity and pest control: patterns of pest emergence with agricultural intensification. Ecology Letters, 2002, 5, 353-360.	6.4	241
8	Can fungal biopesticides control malaria?. Nature Reviews Microbiology, 2007, 5, 377-383.	28.6	239
9	Climate, environmental and socio-economic change: weighing up the balance in vector-borne disease transmission. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20130551.	4.0	215
10	How to Make Evolution-Proof Insecticides for Malaria Control. PLoS Biology, 2009, 7, e1000058.	5.6	208
11	Hostâ€"pathogen interactions in a varying environment: temperature, behavioural fever and fitness. Proceedings of the Royal Society B: Biological Sciences, 2002, 269, 1599-1607.	2.6	188
12	Quantifying the effects of temperature on mosquito and parasite traits that determine the transmission potential of human malaria. PLoS Biology, 2017, 15, e2003489.	5.6	179
13	Temperature checks the Red Queen? Resistance and virulence in a fluctuating environment. Ecology Letters, 2002, 6, 2-5.	6.4	169
14	Complex effects of temperature on mosquito immune function. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 3357-3366.	2.6	139
15	Rethinking vector immunology: the role of environmental temperature in shaping resistance. Nature Reviews Microbiology, 2012, 10, 869-876.	28.6	131
16	Fungal infection counters insecticide resistance in African malaria mosquitoes. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 17443-17447.	7.1	126
17	Is the increased vigour of invasive weeds explained by a trade-off between growth and herbivore resistance?. Oecologia, 1999, 120, 632-640.	2.0	125
18	Malaria in India: The Center for the Study of Complex Malaria in India. Acta Tropica, 2012, 121, 267-273.	2.0	115

#	Article	IF	Citations
19	Capacity of mosquitoes to transmit malaria depends on larval environment. Parasites and Vectors, 2014, 7, 593.	2.5	110
20	Temperature alters Plasmodium blocking by Wolbachia. Scientific Reports, 2015, 4, 3932.	3.3	109
21	Local adaptation to temperature and the implications for vector-borne diseases. Trends in Parasitology, 2014, 30, 115-122.	3.3	107
22	Superâ€"sensitivity to structure in biological models. Proceedings of the Royal Society B: Biological Sciences, 1999, 266, 565-570.	2.6	106
23	Warmer temperatures reduce the vectorial capacity of malaria mosquitoes. Biology Letters, 2012, 8, 465-468.	2.3	104
24	Mixed infections and insect-pathogen interactions. Ecology Letters, 2003, 6, 183-188.	6.4	101
25	Host thermal biology: the key to understanding host-pathogen interactions and microbial pest control?. Agricultural and Forest Entomology, 1999, 1, 195-202.	1.3	98
26	â€˜Manipulationâ€™ without the parasite: altered feeding behaviour of mosquitoes is not dependent on infection with malaria parasites. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20130711.	2.6	97
27	Behavioural fever in the Senegalese grasshopper, Oedaleus senegalensis , and its implications for biological control using pathogens. Ecological Entomology, 1998, 23, 9-14.	2.2	94
28	The influence of mosquito resting behaviour and associated microclimate for malaria risk. Malaria Journal, 2011, 10, 183.	2.3	94
29	Threats to the effectiveness of insecticide-treated bednets for malaria control: thinking beyond insecticide resistance. The Lancet Global Health, 2021, 9, e1325-e1331.	6.3	94
30	Do malaria parasites manipulate mosquitoes?. Trends in Parasitology, 2012, 28, 466-470.	3.3	93
31	Rethinking the extrinsic incubation period of malaria parasites. Parasites and Vectors, 2018, 11, 178.	2.5	93
32	The importance of temperature fluctuations in understanding mosquito population dynamics and malaria risk. Royal Society Open Science, 2017, 4, 160969.	2.4	88
33	Effects of Temperature and Relative Humidity on Sporulation of Metarhizium anisopliae var. acridum in Mycosed Cadavers of Schistocerca gregaria. Journal of Invertebrate Pathology, 2001, 78, 59-65.	3.2	87
34	Adult Survival, Maturation, and Reproduction of the Desert Locust Schistocerca gregaria Infected with the Fungus Metarhizium anisopliae var acridum. Journal of Invertebrate Pathology, 2001, 78, 1-8.	3.2	85
35	Towards evolutionâ€proof malaria control with insecticides. Evolutionary Applications, 2009, 2, 469-480.	3.1	82
36	Effects of temperature on growth of Metarhizium flavoviride and virulence to the variegated grasshopper, Zonocerus variegatus. Mycological Research, 1997, 101, 1469-1474.	2.5	80

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37	Complex environmental drivers of immunity and resistance in malaria mosquitoes. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20132030.	2.6	78
38	Lethal and Pre-Lethal Effects of a Fungal Biopesticide Contribute to Substantial and Rapid Control of Malaria Vectors. PLoS ONE, 2011, 6, e23591.	2.5	77
39	Biological control of human disease vectors: a perspective on challenges and opportunities. BioControl, 2018, 63, 61-69.	2.0	76
40	Larval food quantity affects the capacity of adult mosquitoes to transmit human malaria. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20160298.	2.6	74
41	Lessons from Agriculture for the Sustainable Management of Malaria Vectors. PLoS Medicine, 2012, 9, e1001262.	8.4	73
42	Synergy in Efficacy of Fungal Entomopathogens and Permethrin against West African Insecticide-Resistant Anopheles gambiae Mosquitoes. PLoS ONE, 2010, 5, e12081.	2.5	72
43	Genotype and temperature influence pea aphid resistance to a fungal entomopathogen. Physiological Entomology, 2003, 28, 75-81.	1.5	71
44	Effects of Beauveria bassiana on Survival, Blood-Feeding Success, and Fecundity of Aedes aegypti in Laboratory and Semi-Field Conditions. American Journal of Tropical Medicine and Hygiene, 2012, 86, 656-664.	1.4	71
45	A preliminary evaluation of the potential of Beauveria bassiana for bed bug control. Journal of Invertebrate Pathology, 2012, 111, 82-85.	3.2	69
46	Real-time quantitative PCR for analysis of candidate fungal biopesticides against malaria: Technique validation and first applications. Journal of Invertebrate Pathology, 2009, 100, 160-168.	3.2	60
47	Reduction of Feeding by the Variegated Grasshopper, Zonocerus variegatus , Following Infection by the Fungal Pathogen, Metarhizium flavoviride. Biocontrol Science and Technology, 1997, 7, 327-334.	1.3	57
48	Characterizing microclimate in urban malaria transmission settings: a case study from Chennai, India. Malaria Journal, 2013, 12, 84.	2.3	57
49	The Role of Vector Trait Variation in Vector-Borne Disease Dynamics. Frontiers in Ecology and Evolution, 2020, 8, .	2.2	57
50	Eave tubes for malaria control in Africa: an introduction. Malaria Journal, 2016, 15, 404.	2.3	54
51	Temperature-Dependent Pre-Bloodmeal Period and Temperature-Driven Asynchrony between Parasite Development and Mosquito Biting Rate Reduce Malaria Transmission Intensity. PLoS ONE, 2013, 8, e55777.	2.5	52
52	Transmission traits of malaria parasites within the mosquito: Genetic variation, phenotypic plasticity, and consequences for control. Evolutionary Applications, 2018, 11, 456-469.	3.1	52
53	Effects of a Mycoinsecticide on Feeding and Fecundity of the Brown Locust Locustana pardalina. Biocontrol Science and Technology, 2000, 10, 321-329.	1.3	51
54	Using a self-organizing map to predict invasive species: sensitivity to data errors and a comparison with expert opinion. Journal of Applied Ecology, 2010, 47, 290-298.	4.0	51

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55	The entomopathogenic fungus Beauveria bassiana reduces instantaneous blood feeding in wild multi-insecticide-resistant Culex quinquefasciatus mosquitoes in Benin, West Africa. Parasites and Vectors, 2010, 3, 87.	2.5	51
56	The infectivity of the entomopathogenic fungus Beauveria bassiana to insecticide-resistant and susceptible Anopheles arabiensis mosquitoes at two different temperatures. Malaria Journal, 2010, 9, 71.	2.3	50
57	Alterations in mosquito behaviour by malaria parasites: potential impact on force of infection. Malaria Journal, 2014, 13, 164.	2.3	50
58	Eave tubes for malaria control in Africa: initial development and semi-field evaluations in Tanzania. Malaria Journal, 2016, 15, 447.	2.3	50
59	Resting and feeding preferences of Anopheles stephensi in an urban setting, perennial for malaria. Malaria Journal, 2017, 16, 111.	2.3	50
60	Increasing the potential for malaria elimination by targeting zoophilic vectors. Scientific Reports, 2017, 7, 40551.	3.3	47
61	Priorities for Broadening the Malaria Vector Control Tool Kit. Trends in Parasitology, 2017, 33, 763-774.	3.3	47
62	Empirical and theoretical investigation into the potential impacts of insecticide resistance on the effectiveness of insecticideâ€treated bed nets. Evolutionary Applications, 2018, 11, 431-441.	3.1	47
63	The threat (or not) of insecticide resistance for malaria control. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8900-8902.	7.1	46
64	Making ecological science policy-relevant: issues of scale and disciplinary integration. Landscape Ecology, 2007, 22, 799-809.	4.2	44
65	Spore Persistence and Likelihood of Aeroallergenicity of Entomopathogenic Fungi Used for Mosquito Control. American Journal of Tropical Medicine and Hygiene, 2009, 80, 992-997.	1.4	44
66	Effect of Formulation and Application Method on the Efficacy of Aerial and Submerged Conidia ofMetarhizium flavoviridefor Locust and Grasshopper Control. Pest Management Science, 1996, 46, 299-306.	0.4	42
67	Persistence ofMetarhizium flavovirideand Consequences for Biological Control of Grasshoppers and Locusts. Pest Management Science, 1997, 49, 47-55.	0.4	39
68	Ambient temperature and dietary supplementation interact to shape mosquito vector competence for malaria. Journal of Insect Physiology, 2014, 67, 37-44.	2.0	39
69	Development of a model for evaluating the effects of environmental temperature and thermal behaviour on biological control of locusts and grasshoppers using pathogens. Agricultural and Forest Entomology, 2007, 9, 189-199.	1.3	36
70	Malaria Mosquitoes Attracted by Fatal Fungus. PLoS ONE, 2013, 8, e62632.	2.5	36
71	Evaluation of entomopathogenic fungi as potential biological control agents of the dengue mosquito,<i>Aedes aegypti</i>(Diptera: Culicidae). Biocontrol Science and Technology, 2011, 21, 1027-1047.	1.3	35
72	Immune response and insulin signalling alter mosquito feeding behaviour to enhance malaria transmission potential. Scientific Reports, 2015, 5, 11947.	3.3	35

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73	Reduction in host-finding behaviour in fungus-infected mosquitoes is correlated with reduction in olfactory receptor neuron responsiveness. Malaria Journal, 2011, 10, 219.	2.3	34
74	Storage and persistence of a candidate fungal biopesticide for use against adult malaria vectors. Malaria Journal, 2012, 11, 354.	2.3	32
75	Insights from agriculture for the management of insecticide resistance in disease vectors. Evolutionary Applications, 2018, 11, 404-414.	3.1	32
76	Evaluating the lethal and pre-lethal effects of a range of fungi against adult Anopheles stephensi mosquitoes. Malaria Journal, 2012, 11, 365.	2.3	29
77	Impact and cost-effectiveness of a lethal house lure against malaria transmission in central CÃ´te d'Ivoire: a two-arm, cluster-randomised controlled trial. Lancet, The, 2021, 397, 805-815.	13.7	29
78	Fever and phenotype: transgenerational effect of disease on desert locust phase state. Ecology Letters, 2003, 6, 830-836.	6.4	28
79	Fine scale spatial investigation of multiple insecticide resistance and underlying target-site and metabolic mechanisms in Anopheles gambiae in central CÃ´te dâ€™Ivoire. Scientific Reports, 2020, 10, 15066.	3.3	28
80	House flies delay fungal infection by fevering: at a cost. Ecological Entomology, 2013, 38, 1-10.	2.2	27
81	Epidemics on the move: Climate change and infectious disease. PLoS Biology, 2020, 18, e3001013.	5.6	27
82	Use of a geographic information system to explore spatial variation in pathogen virulence and the implications for biological control of locusts and grasshoppers. Agricultural and Forest Entomology, 2007, 9, 201-208.	1.3	26
83	Discriminating Fever Behavior in House Flies. PLoS ONE, 2013, 8, e62269.	2.5	25
84	Evaluating the efficacy of biological and conventional insecticides with the new â€˜MCD bottleâ€™ bioassay. Malaria Journal, 2014, 13, 499.	2.3	25
85	Microclimate variables of the ambient environment deliver the actual estimates of the extrinsic incubation period of Plasmodium vivax and Plasmodium falciparum: a study from a malaria-endemic urban setting, Chennai in India. Malaria Journal, 2018, 17, 201.	2.3	25
86	Thermal biology of the meadow grasshopper, Chorthippus parallelus, and the implications for resistance to disease. Ecological Entomology, 2005, 30, 724-732.	2.2	24
87	Behavioural changes in Schistocerca gregaria following infection with a fungal pathogen: implications for susceptibility to predation. Ecological Entomology, 2001, 26, 227-234.	2.2	23
88	Integrating Models of Diffusion and Behavior to Predict Innovation Adoption, Maintenance, and Social Diffusion. Journal of Health Communication, 2018, 23, 264-271.	2.4	23
89	Evaluating the impact of screening plus eave tubes on malaria transmission compared to current best practice in central CÃ´te dâ€™Ivoire: a two armed cluster randomized controlled trial. BMC Public Health, 2018, 18, 894.	2.9	23
90	Prospective malaria control using entomopathogenic fungi: comparative evaluation of impact on transmission and selection for resistance. Malaria Journal, 2012, 11, 383.	2.3	22

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91	Potential for biocontrol of house flies,<i>Musca domestica,</i>using fungal biopesticides. Biocontrol Science and Technology, 2015, 25, 513-524.	1.3	22
92	Eave tubes for malaria control in Africa: a modelling assessment of potential impact on transmission. Malaria Journal, 2016, 15, 449.	2.3	22
93	Spore persistence and likelihood of aeroallergenicity of entomopathogenic fungi used for mosquito control. American Journal of Tropical Medicine and Hygiene, 2009, 80, 992-7.	1.4	22
94	Are the ecological concepts of assembly and function of biodiversity useful frameworks for understanding natural pest control?. Agricultural and Forest Entomology, 2002, 4, 237-243.	1.3	20
95	Fitness consequences of altered feeding behavior in immune-challenged mosquitoes. Parasites and Vectors, 2016, 9, 113.	2.5	20
96	Thermal ecology of Zonocerus variegatus and its effects on biocontrol using pathogens. Agricultural and Forest Entomology, 2000, 2, 3-10.	1.3	18
97	The potential for fungal biopesticides to reduce malaria transmission under diverse environmental conditions. Journal of Applied Ecology, 2015, 52, 1558-1566.	4.0	18
98	The Influence of Diurnal Temperature Variation on Degree-Day Accumulation and Insect Life History. PLoS ONE, 2015, 10, e0120772.	2.5	18
99	The interplay between dose and immune system activation determines fungal infection outcome in the African malaria mosquito, Anopheles gambiae. Developmental and Comparative Immunology, 2018, 85, 125-133.	2.3	17
100	Exploring the lower thermal limits for development of the human malaria parasite, <i>Plasmodium falciparum</i>. Biology Letters, 2019, 15, 20190275.	2.3	17
101	The influence of feeding behaviour and temperature on the capacity of mosquitoes to transmit malaria. Nature Ecology and Evolution, 2020, 4, 940-951.	7.8	17
102	Cryogenically preserved RBCs support gametocytogenesis of Plasmodium falciparum in vitro and gametogenesis in mosquitoes. Malaria Journal, 2018, 17, 457.	2.3	16
103	Microbes increase thermal sensitivity in the mosquito Aedes aegypti, with the potential to change disease distributions. PLoS Neglected Tropical Diseases, 2021, 15, e0009548.	3.0	16
104	A non-destructive sugar-feeding assay for parasite detection and estimating the extrinsic incubation period of Plasmodium falciparum in individual mosquito vectors. Scientific Reports, 2021, 11, 9344.	3.3	14
105	Downscaling reveals diverse effects of anthropogenic climate warming on the potential for local environments to support malaria transmission. Climatic Change, 2014, 125, 479-488.	3.6	13
106	Malaria Mosquitoes Host-Locate and Feed upon Caterpillars. PLoS ONE, 2014, 9, e108894.	2.5	12
107	Field Relevant Variation in Ambient Temperature Modifies Density-Dependent Establishment of Plasmodium falciparum Gametocytes in Mosquitoes. Frontiers in Microbiology, 2019, 10, 2651.	3.5	12
108	Persistence and efficacy of a<i>Beauveria bassiana</i>biopesticide against the house fly,<i>Musca domestica</i>, on typical structural substrates of poultry houses. Biocontrol Science and Technology, 2015, 25, 697-715.	1.3	11

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109	Screening and field performance of powder-formulated insecticides on eave tube inserts against pyrethroid resistant Anopheles gambiae s.l.: an investigation into â€˜activesâ€™ prior to a randomized controlled trial in CÃ´te dâ€™Ivoire. Malaria Journal, 2018, 17, 374.	2.3	11
110	Semi-field studies to better understand the impact of eave tubes on mosquito mortality and behaviour. Malaria Journal, 2018, 17, 306.	2.3	11
111	Use of alternative bioassays to explore the impact of pyrethroid resistance on LLIN efficacy. Parasites and Vectors, 2020, 13, 179.	2.5	11
112	Use of novel lab assays to examine the effect of pyrethroid-treated bed nets on blood-feeding success and longevity of highly insecticide-resistant Anopheles gambiae s.l. mosquitoes. Parasites and Vectors, 2022, 15, 111.	2.5	10
113	Wealth versus warming. Nature Climate Change, 2011, 1, 349-350.	18.8	9
114	Interactions between a fungal entomopathogen and malaria parasites within a mosquito vector. Malaria Journal, 2015, 14, 22.	2.3	9
115	Evaluation of the interaction between insecticide resistance-associated genes and malaria transmission in Anopheles gambiae sensu lato in central CÃ´te dâ€™Ivoire. Parasites and Vectors, 2021, 14, 581.	2.5	9
116	Semi-field evaluation of the cumulative effects of a â€œLethal House Lureâ€• on malaria mosquito mortality. Malaria Journal, 2019, 18, 298.	2.3	8
117	Influence of biotic and abiotic factors on the persistence of aBeauveria bassianabiopesticide in laboratory and high-rise poultry house settings. Biocontrol Science and Technology, 2015, 25, 1317-1332.	1.3	6
118	Comparative effects of temperature and thermoregulation on candidate strains of entomopathogenic fungi for Moroccan locust Dociostaurus maroccanus control. BioControl, 2018, 63, 819-831.	2.0	6
119	The role of human and mosquito behaviour in the efficacy of a house-based intervention. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20190815.	4.0	6
120	Prioritising biosecurity investment between agricultural and environmental systems. Journal Fur Verbraucherschutz Und Lebensmittelsicherheit, 2011, 6, 3-13.	1.4	5
121	Sublethal effects of mixed fungal infections on the Moroccan locust, Dociostaurus maroccanus. Journal of Invertebrate Pathology, 2019, 161, 61-69.	3.2	3
122	Spatial targeting of Screening + Eave tubes (SET), a house-based malaria control intervention, in CÃ´te dâ€™Ivoire: A geostatistical modelling study. PLOS Global Public Health, 2021, 1, e0000030.	1.6	1