

Holly D Gaff

List of Publications by Year in descending order

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Version: 2024-02-01

77
papers

2,523
citations

257101

24
h-index

214527

47
g-index

82
all docs

82
docs citations

82
times ranked

2575
citing authors

#	ARTICLE	IF	CITATIONS
1	Estimating the reproductive numbers for the 2008–2009 cholera outbreaks in Zimbabwe. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8767-8772.	3.3	320
2	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.	1.8	215
3	Modeling Optimal Intervention Strategies for Cholera. Bulletin of Mathematical Biology, 2010, 72, 2004-2018.	0.9	184
4	Optimal control applied to vaccination and treatment strategies for various epidemiological models. Mathematical Biosciences and Engineering, 2009, 6, 469-492.	1.0	178
5	Theory of island biogeography on a microscopic scale: organic aggregates as islands for aquatic pathogens. Aquatic Microbial Ecology, 2010, 60, 1-13.	0.9	116
6	Effects of Temperature on Emergence and Seasonality of West Nile Virus in California. American Journal of Tropical Medicine and Hygiene, 2012, 86, 884-894.	0.6	114
7	Ticks and spotted fever group rickettsiae of southeastern Virginia. Ticks and Tick-borne Diseases, 2014, 5, 53-57.	1.1	73
8	<i>Rickettsia parkeri</i> Transmission to <i>Amblyomma americanum</i> by Cofeeding with <i>Amblyomma maculatum</i> (Acari: Ixodidae) and Potential for Spillover. Journal of Medical Entomology, 2015, 52, 1090-1095.	0.9	63
9	Modeling Tick-Borne Disease: A Metapopulation Model. Bulletin of Mathematical Biology, 2007, 69, 265-288.	0.9	61
10	A dynamic landscape model for fish in the Everglades and its application to restoration. Ecological Modelling, 2000, 127, 33-52.	1.2	60
11	<i>Rickettsia parkeri</i> in Gulf Coast Ticks, Southeastern Virginia, USA. Emerging Infectious Diseases, 2011, 17, 896-898.	2.0	60
12	Defining the Risk of Zika and Chikungunya Virus Transmission in Human Population Centers of the Eastern United States. PLoS Neglected Tropical Diseases, 2017, 11, e0005255.	1.3	54
13	<i>Ehrlichia</i> and Spotted Fever Group Rickettsiae Surveillance in <i>Amblyomma americanum</i> in Virginia Through Use of a Novel Six-Plex Real-Time PCR Assay. Vector-Borne and Zoonotic Diseases, 2014, 14, 307-316.	0.6	50
14	<i>Ixodes affinis</i> (Acari: Ixodidae) in southeastern Virginia and implications for the spread of <i>Borrelia burgdorferi</i> , the agent of Lyme disease. Journal of Vector Ecology, 2011, 36, 464-467.	0.5	46
15	An age-structured model for the spread of epidemic cholera: Analysis and simulation. Nonlinear Analysis: Real World Applications, 2011, 12, 3483-3498.	0.9	36
16	An Epidemiological Model of Rift Valley Fever with Spatial Dynamics. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-12.	0.7	34
17	Multistate Survey of American Dog Ticks (<i>Dermacentor variabilis</i>) for <i>Rickettsia</i> Species. Vector-Borne and Zoonotic Diseases, 2019, 19, 652-657.	0.6	34
18	Experimental vertical transmission of <i>Rickettsia parkeri</i> in the Gulf Coast tick, <i>Amblyomma maculatum</i> . Ticks and Tick-borne Diseases, 2015, 6, 568-573.	1.1	33

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19	Natural history of <i>Amblyomma maculatum</i> in Virginia. <i>Ticks and Tick-borne Diseases</i> , 2018, 9, 188-195.	1.1	33
20	Tick, mosquito, and rodent-borne parasite sampling designs for the National Ecological Observatory Network. <i>Ecosphere</i> , 2016, 7, e01271.	1.0	31
21	Simultaneous identification of host, ectoparasite and pathogen <i>scp</i> DNA via in-solution capture. <i>Molecular Ecology Resources</i> , 2016, 16, 1224-1239.	2.2	31
22	Snap, crackle, and pop: Acoustic-based model estimation of snapping shrimp populations in healthy and degraded hard-bottom habitats. <i>Ecological Indicators</i> , 2017, 77, 377-385.	2.6	31
23	A Stochastic Tick-Borne Disease Model: Exploring the Probability of Pathogen Persistence. <i>Bulletin of Mathematical Biology</i> , 2017, 79, 1999-2021.	0.9	29
24	Invasion of two tick-borne diseases across New England: harnessing human surveillance data to capture underlying ecological invasion processes. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2016, 283, 20160834.	1.2	26
25	Prevalence of <i>Ehrlichia chaffeensis</i> and <i>Ehrlichia ewingii</i> in <i>Amblyomma americanum</i> and <i>Dermacentor variabilis</i> collected from southeastern Virginia, 2010–2011. <i>Ticks and Tick-borne Diseases</i> , 2014, 5, 978-982.	1.1	25
26	Review: Application of Tick Control Technologies for Blacklegged, Lone Star, and American Dog Ticks. <i>Journal of Integrated Pest Management</i> , 2018, 9, .	0.9	25
27	Additional U.S. collections of the Gulf Coast tick, <i>Amblyomma maculatum</i> (Acari: Tj ETQq1 1 0.784314 rgBT /C... the State of Maryland, and data regarding this tick from surveillance of migratory songbirds in Maryland. <i>Systematic and Applied Acarology</i> , 2014, 19, 257.	0.5	25
28	Value of Performing Active Surveillance Cultures on Intensive Care Unit Discharge for Detection of Methicillin-Resistant <i>Staphylococcus aureus</i> . <i>Infection Control and Hospital Epidemiology</i> , 2007, 28, 666-670.	1.0	23
29	<i>Borrelia miyamotoi</i> , Other Vector-Borne Agents in Cat Blood and Ticks in Eastern Maryland. <i>EcoHealth</i> , 2017, 14, 816-820.	0.9	23
30	Trends and Opportunities in Tick-Borne Disease Geography. <i>Journal of Medical Entomology</i> , 2021, 58, 2021-2029.	0.9	23
31	Estimating the Impact of Human Papillomavirus (HPV) Vaccination on HPV Prevalence and Cervical Cancer Incidence in Mali. <i>Clinical Infectious Diseases</i> , 2011, 52, 641-645.	2.9	21
32	Mathematical Model to Assess the Relative Effectiveness of Rift Valley Fever Countermeasures. <i>International Journal of Artificial Life Research</i> , 2011, 2, 1-18.	0.1	20
33	Use of optimal control models to predict treatment time for managing tick-borne disease. <i>Journal of Biological Dynamics</i> , 2011, 5, 517-530.	0.8	20
34	In vitro propagation of <i>Candidatus Rickettsia andeanae</i> isolated from <i>Amblyomma maculatum</i> . <i>FEMS Immunology and Medical Microbiology</i> , 2012, 64, 74-81.	2.7	20
35	Evaluation of and insights from ALFISH: a spatially explicit, landscape-level simulation of fish populations in the Everglades. <i>Hydrobiologia</i> , 2004, 520, 73-86.	1.0	17
36	Mathematical Manipulative Models: In Defense of "Beanbag Biology". <i>CBE Life Sciences Education</i> , 2010, 9, 201-211.	1.1	17

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37	Quantitative factors proposed to influence the prevalence of canine tick-borne disease agents in the United States. <i>Parasites and Vectors</i> , 2014, 7, 417.	1.0	17
38	Tick-borne pathogens of potential zoonotic importance in the southern African Region. <i>Journal of the South African Veterinary Association</i> , 2014, 85, 1084.	0.2	16
39	A stochastic epidemic model for the dynamics of two pathogens in a single tick population. <i>Theoretical Population Biology</i> , 2019, 127, 75-90.	0.5	16
40	Planning for human papillomavirus (HPV) vaccination in sub-Saharan Africa: A modeling-based approach. <i>Vaccine</i> , 2014, 32, 3316-3322.	1.7	15
41	Single-tube real-time PCR assay for differentiation of <i>Ixodes affinis</i> and <i>Ixodes scapularis</i> . <i>Ticks and Tick-borne Diseases</i> , 2014, 5, 48-52.	1.1	15
42	LYMESIM 2.0: An Updated Simulation of Blacklegged Tick (Acari: Ixodidae) Population Dynamics and Enzootic Transmission of <i>Borrelia burgdorferi</i> (Spirochaetales: Spirochaetaceae). <i>Journal of Medical Entomology</i> , 2020, 57, 715-727.	0.9	15
43	Harvesting control in an integrodifference population model with concave growth term. <i>Nonlinear Analysis: Hybrid Systems</i> , 2007, 1, 417-429.	2.1	13
44	TickBot: A novel robotic device for controlling tick populations in the natural environment. <i>Ticks and Tick-borne Diseases</i> , 2015, 6, 146-151.	1.1	13
45	Preliminary analysis of an agent-based model for a tick-borne disease. <i>Mathematical Biosciences and Engineering</i> , 2011, 8, 463-473.	1.0	13
46	Comparative population genetics of two invading ticks: Evidence of the ecological mechanisms underlying tick range expansions. <i>Infection, Genetics and Evolution</i> , 2015, 35, 153-162.	1.0	12
47	New Records of <i>Ixodes affinis</i> (Acari: Ixodidae) Parasitizing Avian Hosts in Southeastern Virginia. <i>Journal of Medical Entomology</i> , 2016, 53, 441-445.	0.9	12
48	Survey of <i>Rickettsia parkeri</i> and <i>Amblyomma maculatum</i> associated with small mammals in southeastern Virginia. <i>Ticks and Tick-borne Diseases</i> , 2020, 11, 101550.	1.1	12
49	Exploring the Niche of <i>Rickettsia montanensis</i> (Rickettsiales: Rickettsiaceae) Infection of the American Dog Tick (Acari: Ixodidae), Using Multiple Species Distribution Model Approaches. <i>Journal of Medical Entomology</i> , 2021, 58, 1083-1092.	0.9	12
50	Optimal harvesting during an invasion of a sublethal plant pathogen. <i>Environment and Development Economics</i> , 2007, 12, 673-686.	1.3	11
51	<i>Rickettsia parkeri</i> infections diagnosed by eschar biopsy, Virginia, USA. <i>Infection</i> , 2018, 46, 559-563.	2.3	11
52	Metapopulation Models in Tick-Borne Disease Transmission Modelling. <i>Advances in Experimental Medicine and Biology</i> , 2010, 673, 51-65.	0.8	11
53	Optimal harvesting in an integrodifference population model. <i>Optimal Control Applications and Methods</i> , 2006, 27, 61-75.	1.3	10
54	Scoping review of distribution models for selected <i>Amblyomma</i> ticks and rickettsial group pathogens. <i>PeerJ</i> , 2021, 9, e10596.	0.9	10

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55	Identifying requirements for the invasion of a tick species and tick-borne pathogen through TICKSIM. <i>Mathematical Biosciences and Engineering</i> , 2013, 10, 625-635.	1.0	10
56	Preliminary assessment of the population genetics of <i>Ixodes affinis</i> (Ixodida: Ixodidae) in North and Central America. <i>Systematic and Applied Acarology</i> , 2016, 21, 1300.	0.5	8
57	Optimal Control of Vaccination in an Age-Structured Cholera Model. , 2016, , 221-248.		8
58	Natural history of <i>Ixodes affinis</i> in Virginia. <i>Ticks and Tick-borne Diseases</i> , 2018, 9, 109-119.	1.1	8
59	A seven-legged tick: Report of a morphological anomaly in <i>Ixodes scapularis</i> (Acari: Ixodidae) biting a human host from the Northeastern United States. <i>Ticks and Tick-borne Diseases</i> , 2020, 11, 101304.	1.1	8
60	Epidemic Surveillance Using an Electronic Medical Record: An Empiric Approach to Performance Improvement. <i>PLoS ONE</i> , 2014, 9, e100845.	1.1	8
61	Results from a mathematical model for human monocytic ehrlichiosis. <i>Clinical Microbiology and Infection</i> , 2009, 15, 15-16.	2.8	7
62	“Beyond <i>BIO2010</i>: Celebration and Opportunities” at the Intersection of Mathematics and Biology. <i>CBE Life Sciences Education</i> , 2010, 9, 143-147.	1.1	7
63	Assessing the underwater survival of two tick species, <i>Amblyomma americanum</i> and <i>Amblyomma maculatum</i> . <i>Ticks and Tick-borne Diseases</i> , 2019, 10, 18-22.	1.1	7
64	A Comparison of Tick Collection Materials and Methods in Southeastern Virginia. <i>Journal of Medical Entomology</i> , 2021, 58, 692-698.	0.9	7
65	OPTIMAL CONTROL APPLIED TO RIFT VALLEY FEVER. <i>Natural Resource Modelling</i> , 2013, 26, 385-402.	0.8	6
66	First report of <i>Candidatus Rickettsia mendelii</i> in <i>Ixodes brunneus</i> from the United States. <i>Ticks and Tick-borne Diseases</i> , 2020, 11, 101309.	1.1	6
67	A Simple, Inexpensive Method for Mark-Recapture of Ixodid Ticks. <i>Journal of Insect Science</i> , 2020, 20, .	0.6	5
68	Global Dynamics Emerging from Local Interactions: Agent-Based Modeling for the Life Sciences. , 2013, , 105-141.		4
69	Urbanization and tick parasitism in birds of coastal southeastern Virginia. <i>Journal of Wildlife Management</i> , 2019, 83, 975-984.	0.7	4
70	Comparative population genetics of <i>Amblyomma maculatum</i> and <i>Amblyomma americanum</i> in the mid-Atlantic United States. <i>Ticks and Tick-borne Diseases</i> , 2021, 12, 101600.	1.1	4
71	Focus Stacking Images of Morphological Character States for Differentiating the Adults of <i>Ixodes affinis</i> and <i>Ixodes scapularis</i> (Acari: Ixodidae) in Areas of Sympatry. <i>Journal of Medical Entomology</i> , 2021, 58, 1941-1947.	0.9	4
72	Passerine birds as hosts for <i>Ixodes</i> ticks infected with <i>Borrelia burgdorferi sensu stricto</i> in southeastern Virginia. <i>Ticks and Tick-borne Diseases</i> , 2021, 12, 101650.	1.1	4

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73	Dynamics of two pathogens in a single tick population. Letters in Biomathematics, 2019, 6, 50-66.	0.3	1
74	Spatio-temporal modelling of tick life-stage count data with spatially varying coefficients. Geospatial Health, 2021, 16, .	0.3	0
75	Mathematical Model to Assess the Relative Effectiveness of Rift Valley Fever Countermeasures. , 0, , 67-82.		0
76	Application and Modeling of a Tick-Killing Robot, TickBot. STEAM-H: Science, Technology, Engineering, Agriculture, Mathematics & Health, 2021, , 31-57.	0.0	0
77	Orofacial Manifestations of Lyme Disease: A systematic review. Journal of Dental Hygiene: JDH / American Dental Hygienists' Association, 2021, 95, 23-31.	0.1	0