Fred Gould

List of Publications by Year
in descending order

117 papers	9,568 citations	36691 53 h-index	46524 93 g-index
122 all docs	122 docs citations	122 times ranked	5958 citing authors

#	Article	IF	Citations
1	The role of population and quantitative genetics and modern sequencing technologies to understand evolved herbicide resistance and weed fitness. Pest Management Science, 2021, 77, 12-21.	1.7	19
2	Population genomics of invasive rodents on islands: Genetic consequences of colonization and prospects for localized synthetic gene drive. Evolutionary Applications, 2021, 14, 1421-1435.	1.5	18
3	Mathematical modeling of genetic pest management through femaleâ€specific lethality: Is one locus better than two?. Evolutionary Applications, 2021, 14, 1612-1622.	1.5	7
4	Genome evolution in an agricultural pest following adoption of transgenic crops. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	23
5	Gene Drive Dynamics in Natural Populations: The Importance of Density Dependence, Space, and Sex. Annual Review of Ecology, Evolution, and Systematics, 2020, 51, 505-531.	3.8	44
6	Tethered homing gene drives: A new design for spatially restricted population replacement and suppression. Evolutionary Applications, 2019, 12, 1688-1702.	1.5	49
7	Genome Editing, Gene Drives, and Synthetic Biology: Will They Contribute to Disease-Resistant Crops, and Who Will Benefit?. Annual Review of Phytopathology, 2019, 57, 165-188.	3.5	64
8	Pest management by genetic addiction. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5849-5851.	3.3	1
9	Locally Fixed Alleles: A method to localize gene drive to island populations. Scientific Reports, 2019, 9, 15821.	1.6	52
10	Promises and perils of gene drives: Navigating the communication of complex, post-normal science. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 7692-7697.	3.3	86
11	Invasion and migration of spatially selfâ€limiting gene drives: A comparative analysis. Evolutionary Applications, 2018, 11, 794-808.	1.5	91
12	Agricultural production: assessment of the potential use ofÂCas9-mediated gene drive systems for agricultural pest control. Journal of Responsible Innovation, 2018, 5, S98-S120.	2.3	64
13	â€˜Mapping research and governance needs for gene drivesâ€™. Journal of Responsible Innovation, 2018, 5, S4-S12.	2.3	21
14	Contemporary evolution of a Lepidopteran species, <i>Heliothis virescens</i>, in response to modern agricultural practices. Molecular Ecology, 2018, 27, 167-181.	2.0	28
15	An Introduction to the Proceedings of the Environmental Release of Engineered Pests: Building an International Governance Framework. BMC Proceedings, 2018, 12, .	1.8	4
16	Wicked evolution: Can we address the sociobiological dilemma of pesticide resistance?. Science, 2018, 360, 728-732.	6.0	328
17	Efficacy of Aedes aegypti control by indoor Ultra Low Volume (ULV) insecticide spraying in Iquitos, Peru. PLoS Neglected Tropical Diseases, 2018, 12, e0006378.	1.3	46
18	Elevating the conversation about GE crops. Nature Biotechnology, 2017, 35, 302-304.	9.4	6

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19	Evaluating strategies for reversing CRISPR-Cas9 gene drives. Scientific Reports, 2017, 7, 11038.	1.6	73
20	Frequency of Cry1F Non-Recessive Resistance Alleles in North Carolina Field Populations of Spodoptera frugiperda (Lepidoptera: Noctuidae). PLoS ONE, 2016, 11, e0154492.	1.1	33
21	Monitoring cotton bollworm resistance to Cry1Ac in two counties of northern China during 2009-2013. Pest Management Science, 2015, 71, 377-382.	1.7	19
22	A Critical Assessment of Vector Control for Dengue Prevention. PLoS Neglected Tropical Diseases, 2015, 9, e0003655.	1.3	328
23	The next generation of rodent eradications: Innovative technologies and tools to improve species specificity and increase their feasibility on islands. Biological Conservation, 2015, 185, 47-58.	1.9	111
24	Feasible Introgression of an Anti-pathogen Transgene into an Urban Mosquito Population without Using Gene-Drive. PLoS Neglected Tropical Diseases, 2014, 8, e2827.	1.3	18
25	Antipathogen genes and the replacement of diseaseâ€vectoring mosquito populations: a modelâ€based evaluation. Evolutionary Applications, 2014, 7, 1238-1251.	1.5	11
26	Genetic control of invasive fish: technological options and its role in integrated pest management. Biological Invasions, 2014, 16, 1201-1216.	1.2	83
27	Specificity of the Receptor for the Major Sex Pheromone Component inHeliothis virescens. Journal of Insect Science, 2013, 13, 1-12.	0.9	14
28	Diminishing Returns from Increased Percent Bt Cotton: The Case of Pink Bollworm. PLoS ONE, 2013, 8, e68573.	1.1	7
29	A Reduce and Replace Strategy for Suppressing Vector-Borne Diseases: Insights from a Deterministic Model. PLoS ONE, 2013, 8, e73233.	1.1	30
30	Field Cage Studies and Progressive Evaluation of Genetically-Engineered Mosquitoes. PLoS Neglected Tropical Diseases, 2013, 7, e2001.	1.3	68
31	Modeling the Dynamics of a Non-Limited and a Self-Limited Gene Drive System in Structured Aedes aegypti Populations. PLoS ONE, 2013, 8, e83354.	1.1	18
32	Delaying Corn Rootworm Resistance to Bt Corn. Journal of Economic Entomology, 2012, 105, 767-776.	0.8	97
33	Assessing the Feasibility of Controlling Aedes aegypti with Transgenic Methods: A Model-Based Evaluation. PLoS ONE, 2012, 7, e52235.	1.1	30
34	Stochasticity in Sexual Selection Enables Divergence: Implications for Moth Pheromone Evolution. Evolutionary Biology, 2012, 39, 271-281.	0.5	4
35	THE GENETIC ARCHITECTURE OF A COMPLEX ECOLOGICAL TRAIT: HOST PLANT USE IN THE SPECIALIST MOTH,<i>HELIOTHIS SUBFLEXA</i>. Evolution; International Journal of Organic Evolution, 2012, 66, 3336-3351.	1.1	15
36	Reduced Levels of Membrane-Bound Alkaline Phosphatase Are Common to Lepidopteran Strains Resistant to Cry Toxins from Bacillus thuringiensis. PLoS ONE, 2011, 6, e17606.	1.1	139

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37	Functional characterization of pheromone receptors in the tobacco budworm <i>Heliothis virescens</i>. Insect Molecular Biology, 2011, 20, 125-133.	1.0	123
38	MEDEA SELFISH GENETIC ELEMENTS AS TOOLS FOR ALTERING TRAITS OF WILD POPULATIONS: A THEORETICAL ANALYSIS. Evolution; International Journal of Organic Evolution, 2011, 65, 1149-1162.	1.1	66
39	Geneâ€drive into insect populations with age and spatial structure: a theoretical assessment. Evolutionary Applications, 2011, 4, 415-428.	1.5	55
40	Host plant direct defence against eggs of its specialist herbivore, Heliothis subflexa. Ecological Entomology, 2011, 36, 700-708.	1.1	49
41	Susceptibility of Helicoverpa armigera from different host plants in northern China to Bacillus thuringiensis toxin Cry1Ac. Crop Protection, 2011, 30, 1421-1424.	1.0	2
42	Age and Mating Status Do Not Affect Transcript Levels of Odorant Receptor Genes in Male Antennae of Heliothis virescens and Heliothis subflexa. Journal of Chemical Ecology, 2010, 36, 1226-1233.	0.9	12
43	Insect oviposition behavior affects the evolution of adaptation to Bt crops: consequences for refuge policies. Evolutionary Ecology, 2010, 24, 1017-1030.	0.5	20
44	Sexual isolation of male moths explained by a single pheromone response QTL containing four receptor genes. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 8660-8665.	3.3	82
45	Offspring From Sequential Matings Between <I>Bacillus thuringiensis</I>-Resistant and <I>Bacillus thuringiensis</I>-Susceptible <I>Heliothis virescens</I> Moths (Lepidoptera: Noctuidae). Journal of Economic Entomology, 2010, 103, 861-868.	0.8	7
46	Vip3Aa Tolerance Response of Helicoverpa armigera Populations From a Cry1Ac Cotton Planting Region. Journal of Economic Entomology, 2010, 103, 2169-2173.	0.8	24
47	Effect of <i>Heliothis subflexa</i> herbivory on fruit abscission by <i>Physalis</i> species: the roles of mechanical damage and chemical factors. Ecological Entomology, 2009, 34, 603-613.	1.1	7
48	Frequency of<i>Bt</i>Resistance Alleles in<i>H. armigera</i>During 2006â€“2008 in Northern China. Environmental Entomology, 2009, 38, 1336-1342.	0.7	22
49	Density-Dependent Intraspecific Competition in the Larval Stage of<i>Aedes aegypti</i>(Diptera:) Tj ETQq1 1 0.784314 rgBT /Overlock	0.9	102
50	Skeeter Buster: A Stochastic, Spatially Explicit Modeling Tool for Studying Aedes aegypti Population Replacement and Population Suppression Strategies. PLoS Neglected Tropical Diseases, 2009, 3, e508.	1.3	141
51	Fruit abscission by <i>Physalis</i> species as defense against frugivory. Entomologia Experimentalis Et Applicata, 2009, 130, 21-27.	0.7	4
52	QTL analysis of sex pheromone blend differences between two closely related moths: Insights into divergence in biosynthetic pathways. Insect Biochemistry and Molecular Biology, 2009, 39, 568-577.	1.2	40
53	Impact of Herbivore-induced Plant Volatiles on Parasitoid Foraging Success: A Spatial Simulation of the Cotesia rubecula, Pieris rapae, and Brassica oleracea System. Journal of Chemical Ecology, 2008, 34, 959-970.	0.9	24
54	BROADENING THE APPLICATION OF EVOLUTIONARILY BASED GENETIC PEST MANAGEMENT. Evolution; International Journal of Organic Evolution, 2008, 62, 500-510.	1.1	79

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55	The Impact of Herbivore-Induced Plant Volatiles on Parasitoid Foraging Success: A General Deterministic Model. Journal of Chemical Ecology, 2008, 34, 945-958.	0.9	22
56	An Empirical Test of the F2 Screen for Detection of Bacillus thuringiensis-Resistance Alleles in Tobacco Budworm (Lepidoptera: Noctuidae). Journal of Economic Entomology, 2008, 101, 1406-1414.	0.8	12
57	A Killerâ€“Rescue system for self-limiting gene drive of anti-pathogen constructs. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 2823-2829.	1.2	89
58	An Empirical Test of the F₂ Screen for Detection of <I>Bacillus thuringiensis</I>-Resistance Alleles in Tobacco Budworm (Lepidoptera: Noctuidae). Journal of Economic Entomology, 2008, 101, 1406-1414.	0.8	17
59	A Polymerase Chain Reaction Screen of Field Populations of <I>Heliothis virescens</I> for a Retrotransposon Insertion Conferring Resistance to <I>Bacillus thuringiensis</I> Toxin. Journal of Economic Entomology, 2007, 100, 187-194.	0.8	39
60	Increasing tolerance to Cry1Ac cotton from cotton bollworm, Helicoverpa armigera, was confirmed in Bt cotton farming area of China. Ecological Entomology, 2007, 32, 366-375.	1.1	66
61	The diversity of Bt resistance genes in species of Lepidoptera. Journal of Invertebrate Pathology, 2007, 95, 192-197.	1.5	129
62	Gene drive systems for insect disease vectors. Nature Reviews Genetics, 2006, 7, 427-435.	7.7	364
63	Genetically Engineered Underdominance for Manipulation of Pest Populations: A Deterministic Model. Genetics, 2006, 172, 2613-2620.	1.2	68
64	Impact of Small Fitness Costs on Pest Adaptation to Crop Varieties with Multiple Toxins: A Heuristic Model. Journal of Economic Entomology, 2006, 99, 2091-2099.	0.8	75
65	Experimental evidence for interspecific directional selection on moth pheromone communication. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5858-5863.	3.3	98
66	Impact of Small Fitness Costs on Pest Adaptation to Crop Varieties with Multiple Toxins: A Heuristic Model. Journal of Economic Entomology, 2006, 99, 2091-2099.	0.8	46
67	Pest Control by Genetic Manipulation of Sex Ratio. Journal of Economic Entomology, 2005, 98, 18-34.	0.8	58
68	Predation of Colorado potato beetle eggs by a polyphagous ladybeetle in the presence of alternate prey: potential impact on resistance evolution. Entomologia Experimentalis Et Applicata, 2005, 114, 47-54.	0.7	18
69	Male and Female Antennal Responses in<i>Heliothis virescens</i>and<i>H. subflexa</i>to Conspecific and Heterospecific Sex Pheromone Compounds. Environmental Entomology, 2005, 34, 256-263.	0.7	34
70	Genetic Basis of Resistance to Cry1Ac and Cry2Aa in <I>Heliothis virescens</I> (Lepidoptera:) Tj ETQq0 0 0 rgBT /Overlock 10	0.8	75
71	Frequency of Bt resistance genes in Helicoverpa armigera populations from the Yellow River cotton-farming region of China. Entomologia Experimentalis Et Applicata, 2004, 112, 135-143.	0.7	46
72	INTROGRESSING PHEROMONE QTL BETWEEN SPECIES: TOWARDS AN EVOLUTIONARY UNDERSTANDING OF DIFFERENTIATION IN SEXUAL COMMUNICATION. Journal of Chemical Ecology, 2004, 30, 2495-2514.	0.9	20

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73	POPULATIONGENETICS OFAUTOCIDALCONTROL ANDSTRAINREPLACEMENT. Annual Review of Entomology, 2004, 49, 193-217.	5.7	123
74	Spatial Processes in the Evolution of Resistance in <I>Helicoverpa zea</I> (Lepidoptera:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Simulation Model. Journal of Economic Entomology, 2003, 96, 156-172.	0.8	54
75	Spatial Processes in the Evolution of Resistance in Helicoverpa zea (Lepidoptera: Noctuidae) to Bt Transgenic Corn and Cotton in a Mixed Agroecosystem: a Biology-rich Stochastic Simulation Model. Journal of Economic Entomology, 2003, 96, 156-172.	0.8	85
76	Sensitivity Analysis of a Spatially-Explicit Stochastic Simulation Model of the Evolution of Resistance in Helicoverpa zea (Lepidoptera: Noctuidae) to Bt Transgenic Corn and Cotton. Journal of Economic Entomology, 2003, 96, 173-187.	0.8	40
77	Estimated Frequency of Nonrecessive Bt Resistance Genes in Bollworm, Helicoverpa zea (Boddie) (Lepidoptera: Noctuidae) in Eastern North Carolina. Journal of Economic Entomology, 2003, 96, 137-142.	0.8	97
78	Estimated Frequency of Nonrecessive <I>Bt</I> Resistance Genes in Bollworm, <I>Helicoverpa zea</I> (Boddie) (Lepidoptera: Noctuidae) in Eastern North Carolina. Journal of Economic Entomology, 2003, 96, 137-142.	0.8	58
79	Sensitivity Analysis of a Spatially-Explicit Stochastic Simulation Model of the Evolution of Resistance in <I>Helicoverpa zea</I> (Lepidoptera: Noctuidae) to Bt Transgenic Corn and Cotton. Journal of Economic Entomology, 2003, 96, 173-187.	0.8	30
80	Bacillus thuringiensis-toxin resistance management: Stable isotope assessment of alternate host use by Helicoverpazea. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 16581-16586.	3.3	127
81	IS ATTRACTION FATAL? THE EFFECTS OF HERBIVORE-INDUCED PLANT VOLATILES ON HERBIVORE PARASITISM. Ecology, 2002, 83, 3416-3425.	1.5	17
82	Identification of a Gene Associated with Bt Resistance in Heliothis virescens. Science, 2001, 293, 857-860.	6.0	556
83	Testing Bt refuge strategies in the field. Nature Biotechnology, 2000, 18, 266-267.	9.4	58
84	VARYING MIGRATION AND DEME SIZE AND THE FEASIBILITY OF THE SHIFTING BALANCE. Evolution; International Journal of Organic Evolution, 2000, 54, 324-327.	1.1	20
85	Dispersal by Larvae of the Stem BorersScirpophaga incertulas(Lepidoptera: Pyralidae) andChilo suppressalis(Lepidoptera: Crambidae) in Plots of Transplanted Rice. Environmental Entomology, 2000, 29, 958-971.	0.7	31
86	Larval Dispersal and Survival of<i>Scirpophaga incertulas</i>(Lepidoptera: Pyralidae) and<i>Chilo suppressalis</i>(Lepidoptera: Crambidae) on<i>cry1Ab</i>-transformed and Non-transgenic Rice. Environmental Entomology, 2000, 29, 972-978.	0.7	29
87	Pest Control by the Release of Insects Carrying a Female-Killing Allele on Multiple Loci. Journal of Economic Entomology, 2000, 93, 1566-1579.	0.8	62
88	VARYING MIGRATION AND DEME SIZE AND THE FEASIBILITY OF THE SHIFTING BALANCE. Evolution; International Journal of Organic Evolution, 2000, 54, 324.	1.1	0
89	Heritability of Tolerance to the Cry1Ab Toxin of <I>Bacillus thuringiensis</I> in <I>Chilo suppressalis</I> (Lepidoptera: Crambidae). Journal of Economic Entomology, 2000, 93, 14-17.	0.8	13
90	Spread of Resistance in Spatially Extended Regions of Transgenic Cotton: Implications for Management of Heliothis virescens (Lepidoptera: Noctuidae). Journal of Economic Entomology, 1999, 92, 1-16.	0.8	174

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91	Histopathological Effects and Growth Reduction in a Susceptible and a Resistant Strain of Heliothis virescens (Lepidoptera: Noctuidae) Caused by Sublethal Doses of Pure Cry1A Crystal Proteins from Bacillus thuringiensis. Biocontrol Science and Technology, 1999, 9, 239-246.	0.5	57
92	Bt resistance management. Nature Biotechnology, 1998, 16, 144-146.	9.4	94
93	Manipulating Natural Enemies By Plant Variety Selection and Modification: A Realistic Strategy?. Annual Review of Entomology, 1998, 43, 347-367.	5.7	252
94	Modeling the Dynamics of Adaptation to Transgenic Maize by European Corn Borer (Lepidoptera:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.8	125
95	Sustainability of Transgenic Insecticidal Cultivars: Integrating Pest Genetics and Ecology. Annual Review of Entomology, 1998, 43, 701-726.	5.7	1,230
96	Do Dynamics of Crop Maturation and Herbivorous Insect Life Cycle Influence the Risk of Adaptation to Toxins in Transgenic Host Plants?. Environmental Entomology, 1998, 27, 517-522.	0.7	43
97	Identification of a Linkage Group with a Major Effect on Resistance to Bacillus thuringiensis CrylAc Endotoxin in the Tobacco Budworm (Lepidoptera: Noctuidae). Journal of Economic Entomology, 1997, 90, 75-86.	0.8	51
98	Fall Armyworm (Lepidoptera: Noctuidae) and Diatraea lineolata (Lepidoptera: Pyralidae): Impact of Larval Population Level and Temporal Occurrence on Maize Yield in Nicaragua. Journal of Economic Entomology, 1997, 90, 611-622.	0.8	95
99	Potential impact of Coleomegilla maculata predation on adaptation of Leptinotarsa decemlineata to Bt-transgenic potatoes. Entomologia Experimentalis Et Applicata, 1997, 82, 91-100.	0.7	39
100	Effects of natural enemies on relative fitness of Heliothis virescens genotypes adapted and not adapted to resistant host plants. Entomologia Experimentalis Et Applicata, 1997, 82, 219-230.	0.7	55
101	Effects of Age and Size on Mating in Heliothis virescens (Lepidoptera: Noctuidae): Implications for Resistance Management. Environmental Entomology, 1996, 25, 993-1001.	0.7	16
102	Mutations at Domain II, Loop 3, of Bacillus thuringiensis CryIAa and CryIAb Î´-Endotoxins Suggest Loop 3 Is Involved in Initial Binding to Lepidopteran Midguts. Journal of Biological Chemistry, 1996, 271, 25220-25226.	1.6	67
103	Role of Domain II, Loop 2 Residues of Bacillus thuringiensis CryIAb Î´-Endotoxin in Reversible and Irreversible Binding to Manduca sexta and Heliothis virescens. Journal of Biological Chemistry, 1996, 271, 2390-2396.	1.6	71
104	Comparisons Between Resistance Management Strategies for Insects and Weeds. Weed Technology, 1995, 9, 830-839.	0.4	38
105	Selection and Genetic Analysis of a Heliothis virescens (Lepidoptera: Noctuidae) Strain with High Levels of Resistance to Bacillus thuringiensis Toxins. Journal of Economic Entomology, 1995, 88, 1545-1559.	0.8	308
106	Potential and problems with highâ€dose strategies for pesticidal engineered crops. Biocontrol Science and Technology, 1994, 4, 451-461.	0.5	120
107	Interaction of Genetically Engineered Host Plant Resistance and Natural Enemies of Heliothis virescens (Lepidoptera: Noctuidae) in Tobacco. Environmental Entomology, 1992, 21, 586-597.	0.7	142
108	Effects of Bacillus thuringiensis and Hd-73 Delta-Endotoxin on Growth, Behavior, and Fitness of Susceptible and Toxin-Adapted Strains of Heliothis virescens (Lepidoptera: Noctuidae). Environmental Entomology, 1991, 20, 30-38.	0.7	82

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109	Genetic engineering, integrated pest management and the evolution of pests. Trends in Biotechnology, 1988, 6, S15-S18.	4.9	18
110	Evolutionary Biology and Genetically Engineered Crops. BioScience, 1988, 38, 26-33.	2.2	180
111	Ecological, Agricultural, Genetic, and Commercial Considerations in the Deployment of Insect-resistant Germplasm. Environmental Entomology, 1987, 16, 327-338.	0.7	125
112	Simulation Models for Predicting Durability of Insect-resistant Germ Plasm: Hessian Fly (Diptera:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	0.7	125
113	Simulation Models for Predicting Durability of Insect-resistant Germ Plasm: A Deterministic Diploid, Two-locus Model. Environmental Entomology, 1986, 15, 1-10.	0.7	152
114	Developmental Consequences of Cannibalism in Heliothis zea (Lepidoptera: Noctuidae). Annals of the Entomological Society of America, 1985, 78, 24-28.	1.3	76
115	Associations of Plants and Insects in Deciduous Forest. Ecological Monographs, 1979, 49, 33-50.	2.4	170
116	Resistance of Cucumber Varieties to Tetranychus urticae: Genetic and Environmental Determinants123. Journal of Economic Entomology, 1978, 71, 680-683.	0.8	63
117	Ecology of natural enemies and genetically engineered host plants. , 0, , 269-300.		6