

Philip Batterham

List of Publications by Year in descending order

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105
papers

7,749
citations

76196

40
h-index

56606

83
g-index

111
all docs

111
docs citations

111
times ranked

7333
citing authors

#	ARTICLE	IF	CITATIONS
1	Low doses of the organic insecticide spinosad trigger lysosomal defects, elevated ROS, lipid dysregulation, and neurodegeneration in flies. <i>ELife</i> , 2022, 11, .	2.8	16
2	Dual nicotinic acetylcholine receptor subunit gene knockouts reveal limits to functional redundancy. <i>Pesticide Biochemistry and Physiology</i> , 2022, 184, 105118.	1.6	6
3	Characterization of a novel pesticide transporter and P-glycoprotein orthologues in <i>Drosophila melanogaster</i> . <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2022, 289, 20220625.	1.2	3
4	Inhibiting the proteasome reduces molecular and biological impacts of the natural product insecticide, spinosad. <i>Pest Management Science</i> , 2021, 77, 3777-3786.	1.7	7
5	Role of nicotinic acetylcholine receptor subunits in the mode of action of neonicotinoid, sulfoximine and spinosyn insecticides in <i>Drosophila melanogaster</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2021, 131, 103547.	1.2	43
6	Loss of the <i>Dϵ1</i> nicotinic acetylcholine receptor subunit disrupts bursicon-driven wing expansion and diminishes adult viability in <i>Drosophila melanogaster</i> . <i>Genetics</i> , 2021, 219, .	1.2	4
7	Genomic knockout of hsp23 both decreases and increases fitness under opposing thermal extremes in <i>Drosophila melanogaster</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2021, 139, 103652.	1.2	4
8	Low doses of the neonicotinoid insecticide imidacloprid induce ROS triggering neurological and metabolic impairments in <i>Drosophila</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 25840-25850.	3.3	85
9	Functional characterization and fitness cost of spinosad-resistant alleles in <i>Ceratitis capitata</i> . <i>Journal of Pest Science</i> , 2020, 93, 1043-1058.	1.9	27
10	The spread of resistance to imidacloprid is restricted by thermotolerance in natural populations of <i>Drosophila melanogaster</i> . <i>Nature Ecology and Evolution</i> , 2019, 3, 647-656.	3.4	26
11	Evidence for activation of nitenpyram by a mitochondrial cytochrome P450 in <i>Drosophila melanogaster</i> . <i>Pest Management Science</i> , 2018, 74, 1616-1622.	1.7	21
12	Harnessing model organisms to study insecticide resistance. <i>Current Opinion in Insect Science</i> , 2018, 27, 61-67.	2.2	22
13	Deletion of the nicotinic acetylcholine receptor subunit gene <i>Dϵ1</i> confers insecticide resistance, but at what cost?. <i>Fly</i> , 2018, 12, 46-54.	0.9	21
14	Pleiotropic Effects of Loss of the <i>Dϵ1</i> Subunit in <i>Drosophila melanogaster</i> : Implications for Insecticide Resistance. <i>Genetics</i> , 2017, 205, 263-271.	1.2	34
15	Transcriptome Analysis of <i>Drosophila melanogaster</i> Third Instar Larval Ring Glands Points to Novel Functions and Uncovers a Cytochrome p450 Required for Development. <i>G3: Genes, Genomes, Genetics</i> , 2017, 7, 467-479.	0.8	31
16	Describing the role of <i>Drosophila melanogaster</i> ABC transporters in insecticide biology using CRISPR-Cas9 knockouts. <i>Insect Biochemistry and Molecular Biology</i> , 2017, 91, 1-9.	1.2	44
17	Partitioning the roles of CYP6G1 and gut microbes in the metabolism of the insecticide imidacloprid in <i>Drosophila melanogaster</i> . <i>Scientific Reports</i> , 2017, 7, 11339.	1.6	37
18	Recombinant expression and characterization of <i>Lucilia cuprina</i> CYP6G3: Activity and binding properties toward multiple pesticides. <i>Insect Biochemistry and Molecular Biology</i> , 2017, 90, 14-22.	1.2	12

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19	Multiple P450s and Variation in Neuronal Genes Underpins the Response to the Insecticide Imidacloprid in a Population of <i>Drosophila melanogaster</i> . <i>Scientific Reports</i> , 2017, 7, 11338.	1.6	37
20	The Battle Against Flystrike – Past Research and New Prospects Through Genomics. <i>Advances in Parasitology</i> , 2017, 98, 227-281.	1.4	6
21	A blow to the fly – <i>Lucilia cuprina</i> draft genome and transcriptome to support advances in biology and biotechnology. <i>Biotechnology Advances</i> , 2016, 34, 605-620.	6.0	23
22	Evolution, Expression, and Function of Nonneuronal Ligand-Gated Chloride Channels in <i>Drosophila melanogaster</i> . <i>G3: Genes, Genomes, Genetics</i> , 2016, 6, 2003-2012.	0.8	13
23	Expression of insect ± 6 -like nicotinic acetylcholine receptors in <i>Drosophila melanogaster</i> highlights a high level of conservation of the receptor:spinosyn interaction. <i>Insect Biochemistry and Molecular Biology</i> , 2015, 64, 106-115.	1.2	36
24	In vivo functional analysis of the <i>Drosophila melanogaster</i> nicotinic acetylcholine receptor ± 6 using the insecticide spinosad. <i>Insect Biochemistry and Molecular Biology</i> , 2015, 64, 116-127.	1.2	54
25	<i>Lucilia cuprina</i> genome unlocks parasitic fly biology to underpin future interventions. <i>Nature Communications</i> , 2015, 6, 7344.	5.8	67
26	The Wiggle Index: An Open Source Bioassay to Assess Sub-Lethal Insecticide Response in <i>Drosophila melanogaster</i> . <i>PLoS ONE</i> , 2015, 10, e0145051.	1.1	18
27	Evolutionary Changes in Gene Expression, Coding Sequence and Copy-Number at the <i>Cyp6g1</i> Locus Contribute to Resistance to Multiple Insecticides in <i>Drosophila</i> . <i>PLoS ONE</i> , 2014, 9, e84879.	1.1	27
28	The Molecular Evolution of Cytochrome P450 Genes within and between <i>Drosophila</i> Species. <i>Genome Biology and Evolution</i> , 2014, 6, 1118-1134.	1.1	72
29	Control of the sheep blowfly in Australia and New Zealand – are we there yet?. <i>International Journal for Parasitology</i> , 2014, 44, 879-891.	1.3	44
30	Whole-Genome Expression Analysis in the Third Instar Larval Midgut of <i>Drosophila melanogaster</i> . <i>G3: Genes, Genomes, Genetics</i> , 2014, 4, 2197-2205.	0.8	26
31	The role of <i>Rdl</i> in resistance to phenylpyrazoles in <i>Drosophila melanogaster</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2014, 54, 11-21.	1.2	30
32	Dissecting the Insect Metabolic Machinery Using Twin Ion Mass Spectrometry: A Single P450 Enzyme Metabolizing the Insecticide Imidacloprid <i>in Vivo</i> . <i>Analytical Chemistry</i> , 2014, 86, 3525-3532.	3.2	50
33	Gene duplication in the major insecticide target site, <i>Rdl</i> , in <i>Drosophila melanogaster</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 14705-14710.	3.3	63
34	Population Genetic Structure of the Cotton Bollworm <i>Helicoverpa armigera</i> (Lepidoptera). <i>Trends in Ecology and Evolution</i> , 2013, 24, 11-18.	1.1	44
35	Beyond barcoding: A mitochondrial genomics approach to molecular phylogenetics and diagnostics of blowflies (Diptera: Calliphoridae). <i>Gene</i> , 2012, 511, 131-142.	1.0	142
36	Using <i>Drosophila melanogaster</i> to validate metabolism-based insecticide resistance from insect pests. <i>Insect Biochemistry and Molecular Biology</i> , 2012, 42, 918-924.	1.2	54

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37	Effects of mutations in <i>Drosophila</i> nicotinic acetylcholine receptor subunits on sensitivity to insecticides targeting nicotinic acetylcholine receptors. <i>Pesticide Biochemistry and Physiology</i> , 2012, 102, 56-60.	1.6	48
38	A Cytochrome P450 Conserved in Insects Is Involved in Cuticle Formation. <i>PLoS ONE</i> , 2012, 7, e36544.	1.1	67
39	The Ovicidal, Larvacidal and Adulticidal Properties of 5,5-Dimethyl-2,2-Bipyridyl against <i>Drosophila melanogaster</i> . <i>PLoS ONE</i> , 2012, 7, e49961.	1.1	4
40	The biology of insecticidal activity and resistance. <i>Insect Biochemistry and Molecular Biology</i> , 2011, 41, 411-422.	1.2	159
41	Induction of a detoxification gene in <i>Drosophila melanogaster</i> requires an interaction between tissue specific enhancers and a novel cis-regulatory element. <i>Insect Biochemistry and Molecular Biology</i> , 2011, 41, 863-871.	1.2	13
42	Identification, analysis, and linkage mapping of expressed sequence tags from the Australian sheep blowfly. <i>BMC Genomics</i> , 2011, 12, 406.	1.2	11
43	Selective Sweeps at the Organophosphorus Insecticide Resistance Locus, <i>Rop-1</i> , Have Affected Variation across and beyond the $\text{A}^{\text{Esterase}}$ Gene Cluster in the Australian Sheep Blowfly, <i>Lucilia cuprina</i> . <i>Molecular Biology and Evolution</i> , 2011, 28, 1835-1846.	3.5	16
44	Generation of microsatellite repeat families by RTE retrotransposons in lepidopteran genomes. <i>BMC Evolutionary Biology</i> , 2010, 10, 144.	3.2	61
45	Copy Number Variation and Transposable Elements Feature in Recent, Ongoing Adaptation at the <i>Cyp6g1</i> Locus. <i>PLoS Genetics</i> , 2010, 6, e1000998.	1.5	251
46	Recognition and Detoxification of the Insecticide DDT by <i>Drosophila melanogaster</i> Glutathione S-Transferase D1. <i>Journal of Molecular Biology</i> , 2010, 399, 358-366.	2.0	62
47	Syntaxin 5 Is Required for Copper Homeostasis in <i>Drosophila</i> and Mammals. <i>PLoS ONE</i> , 2010, 5, e14303.	1.1	17
48	Characterization of <i>Drosophila melanogaster</i> cytochrome P450 genes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 5731-5736.	3.3	248
49	Ttk69-dependent repression of lozenge prevents the ectopic development of R7 cells in the <i>Drosophila</i> larval eye disc. <i>BMC Developmental Biology</i> , 2009, 9, 64.	2.1	14
50	Nucleotide diversity in the <i>Hsp90</i> gene in natural populations of <i>Drosophila melanogaster</i> from Australia. <i>Insect Molecular Biology</i> , 2008, 17, 685-697.	1.0	11
51	Mutations in $\text{D}\hat{1}^1$ or $\text{D}\hat{1}^2$ nicotinic acetylcholine receptor subunits can confer resistance to neonicotinoids in <i>Drosophila melanogaster</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2008, 38, 520-528.	1.2	69
52	Exon-primed intron-crossing (EPIC) PCR markers of <i>Helicoverpa armigera</i> (Lepidoptera): Tj ETQq0 0 0 rgBT /Overlock 10, Tf 50 142	0.5	21
53	Molecular markers to discriminate among four pest species of <i>Helicoverpa</i> (Lepidoptera): Tj ETQq1 1 0.784314 rgBT /Overlock 10, Tf 50 142	0.5	37
54	Molecular Evolution of Glutathione S-Transferases in the Genus <i>Drosophila</i> . <i>Genetics</i> , 2007, 177, 1363-1375.	1.2	92

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55	A D δ 6D δ 6 knockout strain of <i>Drosophila melanogaster</i> confers a high level of resistance to spinosad. <i>Insect Biochemistry and Molecular Biology</i> , 2007, 37, 184-188.	1.2	159
56	Evaluating the insecticide resistance potential of eight <i>Drosophila melanogaster</i> cytochrome P450 genes by transgenic over-expression. <i>Insect Biochemistry and Molecular Biology</i> , 2007, 37, 512-519.	1.2	199
57	Two independent duplications forming the Cyp307a genes in <i>Drosophila</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2007, 37, 1044-1053.	1.2	37
58	Cis-Regulatory Elements in the Accord Retrotransposon Result in Tissue-Specific Expression of the <i>Drosophila melanogaster</i> Insecticide Resistance Gene Cyp6g1. <i>Genetics</i> , 2007, 175, 1071-1077.	1.2	233
59	Piperonyl butoxide induces the expression of cytochrome P450 and glutathioneS-transferase genes in <i>Drosophila melanogaster</i> . <i>Pest Management Science</i> , 2007, 63, 803-808.	1.7	53
60	Evolution of genes and genomes on the <i>Drosophila</i> phylogeny. <i>Nature</i> , 2007, 450, 203-218.	13.7	1,886
61	Mitochondrial DNA analysis of field populations of <i>Helicoverpa armigera</i> (Lepidoptera: Noctuidae) and of its relationship to <i>H. zea</i> . <i>BMC Evolutionary Biology</i> , 2007, 7, 117.	3.2	131
62	Copper homeostasis gene discovery in <i>Drosophila melanogaster</i> . <i>BioMetals</i> , 2007, 20, 683-697.	1.8	22
63	A comparison of <i>Drosophila melanogaster</i> detoxification gene induction responses for six insecticides, caffeine and phenobarbital. <i>Insect Biochemistry and Molecular Biology</i> , 2006, 36, 934-942.	1.2	143
64	The genetic bases of high-level resistance to diflubenzuron and low-level resistance to cyromazine in a field strain of the Australian sheep blowfly, <i>Lucilia cuprina</i> (Wiedemann) (Diptera: Calliphoridae). <i>Australian Journal of Entomology</i> , 2006, 45, 87-90.	1.1	8
65	Positional cloning of a cyromazine resistance gene in <i>Drosophila melanogaster</i> . <i>Insect Molecular Biology</i> , 2006, 15, 181-186.	1.0	9
66	The insect growth regulator insecticide cyromazine causes earlier emergence in <i>Drosophila melanogaster</i> . <i>Archives of Insect Biochemistry and Physiology</i> , 2006, 63, 101-109.	0.6	14
67	Essential Roles in Development and Pigmentation for the <i>Drosophila</i> Copper Transporter DmATP7. <i>Molecular Biology of the Cell</i> , 2006, 17, 475-484.	0.9	74
68	Cross-resistance to dicyclanil in cyromazine-resistant mutants of <i>Drosophila melanogaster</i> and <i>Lucilia cuprina</i> . <i>Pesticide Biochemistry and Physiology</i> , 2005, 81, 129-135.	1.6	17
69	Alternative splicing removes an Ets interaction domain from Lozenge during <i>Drosophila</i> eye development. <i>Development Genes and Evolution</i> , 2005, 215, 423-435.	0.4	17
70	Cyp12a4 confers lufenuron resistance in a natural population of <i>Drosophila melanogaster</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 12807-12812.	3.3	133
71	Smg1 Nonsense Mutations Do Not Abolish Nonsense-Mediated mRNA Decay in <i>Drosophila melanogaster</i> . <i>Genetics</i> , 2005, 171, 403-406.	1.2	25
72	Effect of E(sev) and Su(Raf) Hsp83 Mutants and Trans-heterozygotes on Bristle Trait Means and Variation in <i>Drosophila melanogaster</i> . <i>Genetics</i> , 2005, 171, 119-130.	1.2	29

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73	Copper homeostasis in <i>Drosophila melanogaster</i> S2 cells. <i>Biochemical Journal</i> , 2004, 383, 303-309.	1.7	64
74	Dissecting chill coma recovery as a measure of cold resistance: evidence for a biphasic response in <i>Drosophila melanogaster</i> . <i>Journal of Insect Physiology</i> , 2004, 50, 695-700.	0.9	65
75	The Genetic Basis of Resistance to Diazinon in Natural Populations of <i>Drosophila melanogaster</i> . <i>Genetica</i> , 2004, 121, 13-24.	0.5	24
76	Mutations in <i>lozenge</i> and <i>D-Pax2</i> invoke ectopic patterned cell death in the developing <i>Drosophila</i> eye using distinct mechanisms. <i>Development Genes and Evolution</i> , 2003, 213, 107-119.	0.4	19
77	Translational asymmetry as a sensitive indicator of cadmium stress in plants: a laboratory test with wild-type and mutant <i>Arabidopsis thaliana</i> . <i>New Phytologist</i> , 2003, 159, 471-477.	3.5	22
78	Quantitative trait symmetry independent of Hsp90 buffering: Distinct modes of genetic canalization and developmental stability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 13396-13401.	3.3	110
79	A Single P450 Allele Associated with Insecticide Resistance in <i>Drosophila</i> . <i>Science</i> , 2002, 297, 2253-2256.	6.0	770
80	Resistance to antiparasitic drugs: the role of molecular diagnosis. <i>International Journal for Parasitology</i> , 2002, 32, 637-653.	1.3	48
81	<i>Yan</i> regulates <i>Lozenge</i> during <i>Drosophila</i> eye development. <i>Development Genes and Evolution</i> , 2002, 212, 267-276.	0.4	16
82	The acetylcholinesterase gene and organophosphorus resistance in the Australian sheep blowfly, <i>Lucilia cuprina</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2001, 31, 805-816.	1.2	109
83	Fluctuating asymmetry for specific bristle characters in notch mutants of <i>Drosophila melanogaster</i> . <i>Genetica</i> , 2000, 109, 151-159.	0.5	23
84	A Genetic Analysis of Cyromazine Resistance in <i>Drosophila melanogaster</i> (Diptera: Tj ETQqO O O rgBT /Overlock 10 Tf 5	0.8	14
85	Molecular characterization of the Notch homologue from the Australian sheep blowfly, <i>Lucilia cuprina</i> . <i>Insect Biochemistry and Molecular Biology</i> , 1998, 28, 601-612.	1.2	10
86	Predicting insecticide resistance: mutagenesis, selection and response. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 1998, 353, 1729-1734.	1.8	79
87	Cross-Resistance Patterns Among <i>Lucilia cuprina</i> (Diptera: Calliphoridae) Resistant to organophosphorus Insecticides. <i>Journal of Economic Entomology</i> , 1998, 91, 367-375.	0.8	32
88	Developing compound eye in <i>lozenge</i> mutants of <i>Drosophila</i> : <i>lozenge</i> expression in the R7 equivalence group. <i>Development Genes and Evolution</i> , 1997, 206, 481-493.	0.4	48
89	Genetic Analysis of the <i>Lozenge</i> Gene Complex in <i>Drosophila Melanogaster</i> : Adult Visual System Phenotypes. <i>Journal of Neurogenetics</i> , 1996, 10, 193-220.	0.6	21
90	Predicting resistance and managing susceptibility to cyromazine in the Australian sheep blowfly <i>Lucilia cuprina</i> . <i>Australian Journal of Experimental Agriculture</i> , 1996, 36, 413.	1.0	26

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91	Asymmetry - where evolutionary and developmental genetics meet. <i>BioEssays</i> , 1996, 18, 841-845.	1.2	42
92	<i>Scalloped</i> wings Is the <i>Lucilia cuprina Notch</i> Homologue and a Candidate for the <i>Modifier</i> of Fitness and Asymmetry of Diazinon Resistance. <i>Genetics</i> , 1996, 143, 1321-1337.	1.2	89
93	Reply from J.A. McKenzie and P. Batterham. <i>Trends in Ecology and Evolution</i> , 1995, 10, 165.	4.2	2
94	Perturbation of gene frequencies in a natural population of <i>Drosophila melanogaster</i> : evidence for selection at the <i>Adh</i> locus. <i>Genetica</i> , 1994, 92, 187-196.	0.5	16
95	The genetic, molecular and phenotypic consequences of selection for insecticide resistance. <i>Trends in Ecology and Evolution</i> , 1994, 9, 166-169.	4.2	182
96	Australian genetics: A brief history. <i>Genetica</i> , 1993, 90, 81-114.	0.5	9
97	Cyromazine Resistance in <i>Drosophila melanogaster</i> (Diptera: Drosophilidae) Generated by Ethyl Methanesulfonate Mutagenesis. <i>Journal of Economic Entomology</i> , 1993, 86, 1001-1008.	0.8	28
98	Analysis of the Antennal Phenotype in the <i>Drosophila</i> Mutant <i>Lozenge</i> . <i>Journal of Neurogenetics</i> , 1993, 9, 29-53.	0.6	26
99	Fitness and Asymmetry Modification as an Evolutionary Process A Study in the Australian Sheep Blowfly, <i>Lucilia cuprina</i> and <i>Drosophila melanogaster</i> . , 1990, , 57-73.		16
100	MOLECULAR GENETIC CHARACTERIZATION OF A LOCUS THAT CONTAINS DUPLICATE A<i>dh</i> GENES IN <i>DROSOPHILA MOJAVENSIS</i> AND RELATED SPECIES. <i>Genetics</i> , 1986, 112, 295-310.	1.2	30
101	Origin and Expression of an Alcohol Dehydrogenase Gene Duplication in the Genus <i>Drosophila</i> . <i>Evolution; International Journal of Organic Evolution</i> , 1984, 38, 644.	1.1	9
102	ORIGIN AND EXPRESSION OF AN ALCOHOL DEHYDROGENASE GENE DUPLICATION IN THE GENUS <i>DROSOPHILA</i> . <i>Evolution; International Journal of Organic Evolution</i> , 1984, 38, 644-657.	1.1	34
103	Biochemical characterization of the products of the <i>Adh</i> loci of <i>Drosophila mojavensis</i> . <i>Biochemical Genetics</i> , 1983, 21, 871-883.	0.8	27
104	Differential regulation of duplicate alcohol dehydrogenase genes in <i>Drosophila mojavensis</i> . <i>Developmental Biology</i> , 1983, 96, 346-354.	0.9	59
105	A phenol oxidase polymorphism in <i>Drosophila melanogaster</i> . <i>Genetica</i> , 1980, 54, 121-125.	0.5	13