Philip Batterham

List of Publications by Year
in descending order

105 papers	7,749 citations	76294 40 h-index	56687 83 g-index
111 all docs	111 docs citations	111 times ranked	7333 citing authors

#	Article	IF	Citations
1	Evolution of genes and genomes on the Drosophila phylogeny. Nature, 2007, 450, 203-218.	13.7	1,886
2	A Single P450 Allele Associated with Insecticide Resistance in Drosophila. Science, 2002, 297, 2253-2256.	6.0	770
3	Copy Number Variation and Transposable Elements Feature in Recent, Ongoing Adaptation at the Cyp6g1 Locus. PLoS Genetics, 2010, 6, e1000998.	1.5	251
4	Characterization of <i>Drosophila melanogaster</i> cytochrome P450 genes. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5731-5736.	3.3	248
5	Cis-Regulatory Elements in the Accord Retrotransposon Result in Tissue-Specific Expression of the Drosophila melanogaster Insecticide Resistance Gene Cyp6g1. Genetics, 2007, 175, 1071-1077.	1.2	233
6	Evaluating the insecticide resistance potential of eight Drosophila melanogaster cytochrome P450 genes by transgenic over-expression. Insect Biochemistry and Molecular Biology, 2007, 37, 512-519.	1.2	199
7	The genetic, molecular and phenotypic consequences of selection for insecticide resistance. Trends in Ecology and Evolution, 1994, 9, 166-169.	4.2	182
8	A DÎ±6DÎ±6 knockout strain of Drosophila melanogaster confers a high level of resistance to spinosad. Insect Biochemistry and Molecular Biology, 2007, 37, 184-188.	1.2	159
9	The biology of insecticidal activity and resistance. Insect Biochemistry and Molecular Biology, 2011, 41, 411-422.	1.2	159
10	A comparison of Drosophila melanogaster detoxification gene induction responses for six insecticides, caffeine and phenobarbital. Insect Biochemistry and Molecular Biology, 2006, 36, 934-942.	1.2	143
11	Beyond barcoding: A mitochondrial genomics approach to molecular phylogenetics and diagnostics of blowflies (Diptera: Calliphoridae). Gene, 2012, 511, 131-142.	1.0	142
12	Cyp12a4 confers lufenuron resistance in a natural population of Drosophila melanogaster. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 12807-12812.	3.3	133
13	Mitochondrial DNA analysis of field populations of Helicoverpa armigera (Lepidoptera: Noctuidae) and of its relationship to H. zea. BMC Evolutionary Biology, 2007, 7, 117.	3.2	131
14	Quantitative trait symmetry independent of Hsp90 buffering: Distinct modes of genetic canalization and developmental stability. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13396-13401.	3.3	110
15	The acetylcholinesterase gene and organophosphorus resistance in the Australian sheep blowfly, Lucilia cuprina. Insect Biochemistry and Molecular Biology, 2001, 31, 805-816.	1.2	109
16	Molecular Evolution of Glutathione <i>S</i>-Transferases in the Genus Drosophila. Genetics, 2007, 177, 1363-1375.	1.2	92
17	<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. Genetics, 1996, 143, 1321-1337.	1.2	89
18	Low doses of the neonicotinoid insecticide imidacloprid induce ROS triggering neurological and metabolic impairments in <i>Drosophila</i>. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25840-25850.	3.3	85

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19	Predicting insecticide resistance: mutagenesis, selection and response. Philosophical Transactions of the Royal Society B: Biological Sciences, 1998, 353, 1729-1734.	1.8	79
20	Essential Roles in Development and Pigmentation for the Drosophila Copper Transporter DmATP7. Molecular Biology of the Cell, 2006, 17, 475-484.	0.9	74
21	The Molecular Evolution of Cytochrome P450 Genes within and between Drosophila Species. Genome Biology and Evolution, 2014, 6, 1118-1134.	1.1	72
22	Mutations in DÎ±1 or DÎ²2 nicotinic acetylcholine receptor subunits can confer resistance to neonicotinoids in Drosophila melanogaster. Insect Biochemistry and Molecular Biology, 2008, 38, 520-528.	1.2	69
23	Lucilia cuprina genome unlocks parasitic fly biology to underpin future interventions. Nature Communications, 2015, 6, 7344.	5.8	67
24	A Cytochrome P450 Conserved in Insects Is Involved in Cuticle Formation. PLoS ONE, 2012, 7, e36544.	1.1	67
25	Dissecting chill coma recovery as a measure of cold resistance: evidence for a biphasic response in Drosophila melanogaster. Journal of Insect Physiology, 2004, 50, 695-700.	0.9	65
26	Copper homoeostasis in Drosophila melanogaster S2 cells. Biochemical Journal, 2004, 383, 303-309.	1.7	64
27	Gene duplication in the major insecticide target site, <i>Rdl</i> , in <i>Drosophila melanogaster</i>. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14705-14710.	3.3	63
28	Recognition and Detoxification of the Insecticide DDT by Drosophila melanogaster Glutathione S-Transferase D1. Journal of Molecular Biology, 2010, 399, 358-366.	2.0	62
29	Generation of microsatellite repeat families by RTE retrotransposons in lepidopteran genomes. BMC Evolutionary Biology, 2010, 10, 144.	3.2	61
30	Differential regulation of duplicate alcohol dehydrogenase genes in Drosophila mojavensis. Developmental Biology, 1983, 96, 346-354.	0.9	59
31	Molecular markers to discriminate among four pest species of<i>Helicoverpa</i>(Lepidoptera:) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.5	57
32	Using Drosophila melanogaster to validate metabolism-based insecticide resistance from insect pests. Insect Biochemistry and Molecular Biology, 2012, 42, 918-924.	1.2	54
33	InÂvivo functional analysis of the Drosophila melanogaster nicotinic acetylcholine receptor DÎ±6 using the insecticide spinosad. Insect Biochemistry and Molecular Biology, 2015, 64, 116-127.	1.2	54
34	Piperonyl butoxide induces the expression of cytochrome P450 and glutathioneS-transferase genes inDrosophila melanogaster. Pest Management Science, 2007, 63, 803-808.	1.7	53
35	Dissecting the Insect Metabolic Machinery Using Twin Ion Mass Spectrometry: A Single P450 Enzyme Metabolizing the Insecticide Imidacloprid <i>in Vivo</i>. Analytical Chemistry, 2014, 86, 3525-3532.	3.2	50
36	Developing compound eye in lozenge mutants of Drosophila : lozenge expression in the R7 equivalence group. Development Genes and Evolution, 1997, 206, 481-493.	0.4	48

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37	Resistance to antiparasitic drugs: the role of molecular diagnosis. International Journal for Parasitology, 2002, 32, 637-653.	1.3	48
38	Effects of mutations in Drosophila nicotinic acetylcholine receptor subunits on sensitivity to insecticides targeting nicotinic acetylcholine receptors. Pesticide Biochemistry and Physiology, 2012, 102, 56-60.	1.6	48
39	Control of the sheep blowfly in Australia and New Zealand â€“ are we there yet?. International Journal for Parasitology, 2014, 44, 879-891.	1.3	44
40	Describing the role of Drosophila melanogaster ABC transporters in insecticide biology using CRISPR-Cas9 knockouts. Insect Biochemistry and Molecular Biology, 2017, 91, 1-9.	1.2	44
41	Population Genetic Structure of the Cotton Bollworm Helicoverpa armigera (HÃ¼bner) (Lepidoptera:) Tj ETQq1 1 0.784314 rgBT /Ov	1.1	44
42	Role of nicotinic acetylcholine receptor subunits in the mode of action of neonicotinoid, sulfoximine and spinosyn insecticides in Drosophila melanogaster. Insect Biochemistry and Molecular Biology, 2021, 131, 103547.	1.2	43
43	Asymmetry - where evolutionary and developmental genetics meet. BioEssays, 1996, 18, 841-845.	1.2	42
44	Two independent duplications forming the Cyp307a genes in Drosophila. Insect Biochemistry and Molecular Biology, 2007, 37, 1044-1053.	1.2	37
45	Partitioning the roles of CYP6G1 and gut microbes in the metabolism of the insecticide imidacloprid in Drosophila melanogaster. Scientific Reports, 2017, 7, 11339.	1.6	37
46	Multiple P450s and Variation in Neuronal Genes Underpins the Response to the Insecticide Imidacloprid in a Population of Drosophila melanogaster. Scientific Reports, 2017, 7, 11338.	1.6	37
47	Expression of insect Î±6-like nicotinic acetylcholine receptors inÂDrosophila melanogaster highlights a high level of conservation ofÂthe receptor:spinosyn interaction. Insect Biochemistry and Molecular Biology, 2015, 64, 106-115.	1.2	36
48	ORIGIN AND EXPRESSION OF AN ALCOHOL DEHYDROGENASE GENE DUPLICATION IN THE GENUSDROSOPHILA. Evolution; International Journal of Organic Evolution, 1984, 38, 644-657.	1.1	34
49	Pleiotropic Effects of Loss of the <i>D</i>Î±<i>1</i> Subunit in <i>Drosophila melanogaster</i>: Implications for Insecticide Resistance. Genetics, 2017, 205, 263-271.	1.2	34
50	Cross-Resistance Patterns Among Lucilia cuprina (Diptera: Calliphoridae) Resistant to organophosphorus Insecticides. Journal of Economic Entomology, 1998, 91, 367-375.	0.8	32
51	Transcriptome Analysis of<i>Drosophila melanogaster</i>Third Instar Larval Ring Glands Points to Novel Functions and Uncovers a Cytochrome p450 Required for Development. G3: Genes, Genomes, Genetics, 2017, 7, 467-479.	0.8	31
52	The role of Rdl in resistance to phenylpyrazoles in Drosophila melanogaster. Insect Biochemistry and Molecular Biology, 2014, 54, 11-21.	1.2	30
53	MOLECULAR GENETIC CHARACTERIZATION OF A LOCUS THAT CONTAINS DUPLICATE A<i>dh</i> GENES IN <i>DROSOPHILA MOJAVENSIS</i> AND RELATED SPECIES. Genetics, 1986, 112, 295-310.	1.2	30
54	Effect of E(sev) and Su(Raf) Hsp83 Mutants and Trans-heterozygotes on Bristle Trait Means and Variation in Drosophila melanogaster. Genetics, 2005, 171, 119-130.	1.2	29

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55	Cyromazine Resistance in Drosophila melanogaster (Diptera: Drosophilidae) Generated by Ethyl Methanesulfonate Mutagenesis. Journal of Economic Entomology, 1993, 86, 1001-1008.	0.8	28
56	Biochemical characterization of the products of the Adh loci of Drosophila mojavensis. Biochemical Genetics, 1983, 21, 871-883.	0.8	27
57	Evolutionary Changes in Gene Expression, Coding Sequence and Copy-Number at the Cyp6g1 Locus Contribute to Resistance to Multiple Insecticides in Drosophila. PLoS ONE, 2014, 9, e84879.	1.1	27
58	Functional characterization and fitness cost of spinosad-resistant alleles in Ceratitis capitata. Journal of Pest Science, 2020, 93, 1043-1058.	1.9	27
59	Analysis of the Antennal Phenotype in theDrosophilaMutantLozenge. Journal of Neurogenetics, 1993, 9, 29-53.	0.6	26
60	Predicting resistance and managing susceptibility to cyromazine in the Australian sheep blowfly Lucilia cuprina. Australian Journal of Experimental Agriculture, 1996, 36, 413.	1.0	26
61	Whole-Genome Expression Analysis in the Third Instar Larval Midgut of <i>Drosophila melanogaster</i>. G3: Genes, Genomes, Genetics, 2014, 4, 2197-2205.	0.8	26
62	The spread of resistance to imidacloprid is restricted by thermotolerance in natural populations of Drosophila melanogaster. Nature Ecology and Evolution, 2019, 3, 647-656.	3.4	26
63	Smg1 Nonsense Mutations Do Not Abolish Nonsense-Mediated mRNA Decay in Drosophila melanogaster. Genetics, 2005, 171, 403-406.	1.2	25
64	The Genetic Basis of Resistance to Diazinon in Natural Populations of Drosophila melanogaster. Genetica, 2004, 121, 13-24.	0.5	24
65	Fluctuating asymmetry for specific bristle characters in notch mutants of Drosophila melanogaster. Genetica, 2000, 109, 151-159.	0.5	23
66	A blow to the fly â€" Lucilia cuprina draft genome and transcriptome to support advances in biology and biotechnology. Biotechnology Advances, 2016, 34, 605-620.	6.0	23
67	Translational asymmetry as a sensitive indicator of cadmium stress in plants: a laboratory test with wildâ€type and mutant Arabidopsis thaliana. New Phytologist, 2003, 159, 471-477.	3.5	22
68	Copper homeostasis gene discovery in Drosophila melanogaster. BioMetals, 2007, 20, 683-697.	1.8	22
69	Harnessing model organisms to study insecticide resistance. Current Opinion in Insect Science, 2018, 27, 61-67.	2.2	22
70	Genetic Analysis of the<i>Lozenge</i>Gene Complex in<i>Drosophila Melanogaster</i>: Adult Visual System Phenotypes. Journal of Neurogenetics, 1996, 10, 193-220.	0.6	21
71	Exon-primed intron-crossing (EPIC) PCR markers of<i>Helicoverpa armigera</i>(Lepidoptera:) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	0.5	21
72	Evidence for activation of nitenpyram by a mitochondrial cytochrome P450 in Drosophila melanogaster. Pest Management Science, 2018, 74, 1616-1622.	1.7	21

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73	Deletion of the nicotinic acetylcholine receptor subunit gene <i>DÎ±1</i> confers insecticide resistance, but at what cost?. Fly, 2018, 12, 46-54.	0.9	21
74	Mutations in lozenge and D-Pax2 invoke ectopic patterned cell death in the developing Drosophila eye using distinct mechanisms. Development Genes and Evolution, 2003, 213, 107-119.	0.4	19
75	The Wiggle Index: An Open Source Bioassay to Assess Sub-Lethal Insecticide Response in Drosophila melanogaster. PLoS ONE, 2015, 10, e0145051.	1.1	18
76	Cross-resistance to dicyclanil in cyromazine-resistant mutants of Drosophila melanogaster and Lucilia cuprina. Pesticide Biochemistry and Physiology, 2005, 81, 129-135.	1.6	17
77	Alternative splicing removes an Ets interaction domain from Lozenge during Drosophila eye development. Development Genes and Evolution, 2005, 215, 423-435.	0.4	17
78	Syntaxin 5 Is Required for Copper Homeostasis in Drosophila and Mammals. PLoS ONE, 2010, 5, e14303.	1.1	17
79	Perturbation of gene frequencies in a natural population of Drosophila melanogaster: evidence for selection at the Adh locus. Genetica, 1994, 92, 187-196.	0.5	16
80	Yan regulates Lozenge during Drosophila eye development. Development Genes and Evolution, 2002, 212, 267-276.	0.4	16
81	Selective Sweeps at the Organophosphorus Insecticide Resistance Locus, Rop-1, Have Affected Variation across and beyond the Â-Esterase Gene Cluster in the Australian Sheep Blowfly, Lucilia cuprina. Molecular Biology and Evolution, 2011, 28, 1835-1846.	3.5	16
82	Fitness and Asymmetry Modification as an Evolutionary Process A Study in the Australian Sheep Blowfly, Lucilia cuprina and Drosophila melanogaster. , 1990, , 57-73.		16
83	Low doses of the organic insecticide spinosad trigger lysosomal defects, elevated ROS, lipid dysregulation, and neurodegeneration in flies. ELife, 2022, 11, .	2.8	16
84	A Genetic Analysis of Cyromazine Resistance in <I>Drosophila melanogaster</I> (Diptera:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.8	14
85	The insect growth regulator insecticide cyromazine causes earlier emergence inDrosophila melanogaster. Archives of Insect Biochemistry and Physiology, 2006, 63, 101-109.	0.6	14
86	Ttk69-dependent repression of lozenge prevents the ectopic development of R7 cells in the Drosophila larval eye disc. BMC Developmental Biology, 2009, 9, 64.	2.1	14
87	A phenol oxidase polymorphism in Drosophila melanogaster. Genetica, 1980, 54, 121-125.	0.5	13
88	Induction of a detoxification gene in Drosophila melanogaster requires an interaction between tissue specific enhancers and a novel cis-regulatory element. Insect Biochemistry and Molecular Biology, 2011, 41, 863-871.	1.2	13
89	Evolution, Expression, and Function of Nonneuronal Ligand-Gated Chloride Channels in<i>Drosophila melanogaster</i>. G3: Genes, Genomes, Genetics, 2016, 6, 2003-2012.	0.8	13
90	Recombinant expression and characterization of Lucilia cuprina CYP6G3: Activity and binding properties toward multiple pesticides. Insect Biochemistry and Molecular Biology, 2017, 90, 14-22.	1.2	12

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91	Nucleotide diversity in the <i>Hsp90</i> gene in natural populations of <i>Drosophila melanogaster </i>from Australia. Insect Molecular Biology, 2008, 17, 685-697.	1.0	11
92	Identification, analysis, and linkage mapping of expressed sequence tags from the Australian sheep blowfly. BMC Genomics, 2011, 12, 406.	1.2	11
93	Molecular characterization of the Notch homologue from the Australian sheep blowfly, Lucilia cuprina. Insect Biochemistry and Molecular Biology, 1998, 28, 601-612.	1.2	10
94	Origin and Expression of an Alcohol Dehydrogenase Gene Duplication in the Genus Drosophila. Evolution; International Journal of Organic Evolution, 1984, 38, 644.	1.1	9
95	Australian genetics: A brief history. Genetica, 1993, 90, 81-114.	0.5	9
96	Positional cloning of a cyromazine resistance gene in Drosophila melanogaster. Insect Molecular Biology, 2006, 15, 181-186.	1.0	9
97	The genetic bases of high-level resistance to diflubenzuron and low-level resistance to cyromazine in a field strain of the Australian sheep blowfly, Lucilia cuprina (Wiedemann) (Diptera: Calliphoridae). Australian Journal of Entomology, 2006, 45, 87-90.	1.1	8
98	Inhibiting the proteasome reduces molecular and biological impacts of the natural product insecticide, spinosad. Pest Management Science, 2021, 77, 3777-3786.	1.7	7
99	The Battle Against Flystrike â€“ Past Research and New Prospects Through Genomics. Advances in Parasitology, 2017, 98, 227-281.	1.4	6
100	Dual nicotinic acetylcholine receptor subunit gene knockouts reveal limits to functional redundancy. Pesticide Biochemistry and Physiology, 2022, 184, 105118.	1.6	6
101	Loss of the <i>D</i>Î²<i>1</i> nicotinic acetylcholine receptor subunit disrupts <i>bursicon</i>-driven wing expansion and diminishes adult viability in <i>Drosophila melanogaster</i>. Genetics, 2021, 219, .	1.2	4
102	Genomic knockout of hsp23 both decreases and increases fitness under opposing thermal extremes in Drosophila melanogaster. Insect Biochemistry and Molecular Biology, 2021, 139, 103652.	1.2	4
103	The Ovicidal, Larvacidal and Adulticidal Properties of 5,5â€²-Dimethyl-2,2â€²-Bipyridyl against Drosophila melanogaster. PLoS ONE, 2012, 7, e49961.	1.1	4
104	Characterization of a novel pesticide transporter and P-glycoprotein orthologues in <i>Drosophila melanogaster</i>. Proceedings of the Royal Society B: Biological Sciences, 2022, 289, 20220625.	1.2	3
105	Reply from J.A. McKenzie and P. Batterham. Trends in Ecology and Evolution, 1995, 10, 165.	4.2	2