

Wannes Dermauw

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

7,370
citations

76294

40
h-index

60583

81
g-index

90
all docs

90
docs citations

90
times ranked

5369
citing authors

#	ARTICLE	IF	CITATIONS
1	The genome of <i>Tetranychus urticae</i> reveals herbivorous pest adaptations. <i>Nature</i> , 2011, 479, 487-492.	13.7	897
2	Acaricide resistance mechanisms in the two-spotted spider mite <i>Tetranychus urticae</i> and other important Acari: A review. <i>Insect Biochemistry and Molecular Biology</i> , 2010, 40, 563-572.	1.2	626
3	The ABC gene family in arthropods: Comparative genomics and role in insecticide transport and resistance. <i>Insect Biochemistry and Molecular Biology</i> , 2014, 45, 89-110.	1.2	462
4	A link between host plant adaptation and pesticide resistance in the polyphagous spider mite <i>Tetranychus urticae</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E113-22.	3.3	347
5	Genome sequence of the Asian Tiger mosquito, <i>Aedes albopictus</i> , reveals insights into its biology, genetics, and evolution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E5907-15.	3.3	251
6	Mechanisms and ecological consequences of plant defence induction and suppression in herbivore communities. <i>Annals of Botany</i> , 2015, 115, 1015-1051.	1.4	244
7	Population bulk segregant mapping uncovers resistance mutations and the mode of action of a chitin synthesis inhibitor in arthropods. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 4407-4412.	3.3	240
8	The economic importance of acaricides in the control of phytophagous mites and an update on recent acaricide mode of action research. <i>Pesticide Biochemistry and Physiology</i> , 2015, 121, 12-21.	1.6	238
9	Genotype to phenotype, the molecular and physiological dimensions of resistance in arthropods. <i>Pesticide Biochemistry and Physiology</i> , 2015, 121, 61-77.	1.6	237
10	The Molecular Evolution of Xenobiotic Metabolism and Resistance in Chelicerate Mites. <i>Annual Review of Entomology</i> , 2016, 61, 475-498.	5.7	227
11	The cys-loop ligand-gated ion channel gene family of <i>Tetranychus urticae</i> : Implications for acaricide toxicology and a novel mutation associated with abamectin resistance. <i>Insect Biochemistry and Molecular Biology</i> , 2012, 42, 455-465.	1.2	161
12	Whitefly hijacks a plant detoxification gene that neutralizes plant toxins. <i>Cell</i> , 2021, 184, 1693-1705.e17.	13.5	161
13	Abamectin is metabolized by CYP392A16, a cytochrome P450 associated with high levels of acaricide resistance in <i>Tetranychus urticae</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2014, 46, 43-53.	1.2	155
14	Salivary proteins of spider mites suppress defenses in <i>Nicotiana benthamiana</i> and promote mite reproduction. <i>Plant Journal</i> , 2016, 86, 119-131.	2.8	149
15	A gene horizontally transferred from bacteria protects arthropods from host plant cyanide poisoning. <i>ELife</i> , 2014, 3, e02365.	2.8	135
16	A burst of ABC genes in the genome of the polyphagous spider mite <i>Tetranychus urticae</i> . <i>BMC Genomics</i> , 2013, 14, 317.	1.2	118
17	Disruption of a horizontally transferred phytoene desaturase abolishes carotenoid accumulation and diapause in <i>Tetranychus urticae</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E5871-E5880.	3.3	114
18	The Salivary Protein Repertoire of the Polyphagous Spider Mite <i>Tetranychus urticae</i> : A Quest for Effectors. <i>Molecular and Cellular Proteomics</i> , 2016, 15, 3594-3613.	2.5	113

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19	Diversity and evolution of the P450 family in arthropods. <i>Insect Biochemistry and Molecular Biology</i> , 2020, 127, 103490.	1.2	109
20	Molecular analysis of resistance to acaricidal spirocyclic tetroneic acids in <i>Tetranychus urticae</i> : CYP392E10 metabolizes spiropdiclofen, but not its corresponding enol. <i>Insect Biochemistry and Molecular Biology</i> , 2013, 43, 544-554.	1.2	107
21	Genome wide gene-expression analysis of facultative reproductive diapause in the two-spotted spider mite <i>Tetranychus urticae</i> . <i>BMC Genomics</i> , 2013, 14, 815.	1.2	92
22	A mutation in the PSST homologue of complex I (NADH:ubiquinone oxidoreductase) from <i>Tetranychus urticae</i> is associated with resistance to METI acaricides. <i>Insect Biochemistry and Molecular Biology</i> , 2017, 80, 79-90.	1.2	82
23	The relative contribution of target-site mutations in complex acaricide resistant phenotypes as assessed by marker assisted backcrossing in <i>Tetranychus urticae</i> . <i>Scientific Reports</i> , 2017, 7, 9202.	1.6	81
24	Does host plant adaptation lead to pesticide resistance in generalist herbivores?. <i>Current Opinion in Insect Science</i> , 2018, 26, 25-33.	2.2	74
25	Long-Term Population Studies Uncover the Genome Structure and Genetic Basis of Xenobiotic and Host Plant Adaptation in the Herbivore <i>Tetranychus urticae</i> . <i>Genetics</i> , 2019, 211, 1409-1427.	1.2	70
26	The complete mitochondrial genome of the house dust mite <i>Dermatophagoides pteronyssinus</i> (Trouessart): a novel gene arrangement among arthropods. <i>BMC Genomics</i> , 2009, 10, 107.	1.2	69
27	A glutathione-S-transferase (TuGSTd05) associated with acaricide resistance in <i>Tetranychus urticae</i> directly metabolizes the complex II inhibitor cyflumetofen. <i>Insect Biochemistry and Molecular Biology</i> , 2017, 80, 101-115.	1.2	68
28	Significance and interpretation of molecular diagnostics for insecticide resistance management of agricultural pests. <i>Current Opinion in Insect Science</i> , 2020, 39, 69-76.	2.2	64
29	High-resolution QTL mapping in <i>Tetranychus urticae</i> reveals acaricide-specific responses and common target-site resistance after selection by different METI-I acaricides. <i>Insect Biochemistry and Molecular Biology</i> , 2019, 110, 19-33.	1.2	62
30	Molecular analysis of cyenopyrafen resistance in the two-spotted spider mite <i>Tetranychus urticae</i> . <i>Pest Management Science</i> , 2016, 72, 103-112.	1.7	60
31	Bacterial origin of a diverse family of UDP-glycosyltransferase genes in the <i>Tetranychus urticae</i> genome. <i>Insect Biochemistry and Molecular Biology</i> , 2014, 50, 43-57.	1.2	59
32	Combined Activity of DCL2 and DCL3 Is Crucial in the Defense against Potato Spindle Tuber Viroid. <i>PLoS Pathogens</i> , 2016, 12, e1005936.	2.1	58
33	Transcriptomic responses of the olive fruit fly <i>Bactrocera oleae</i> and its symbiont <i>Candidatus Erwinia dacicola</i> to olive feeding. <i>Scientific Reports</i> , 2017, 7, 42633.	1.6	58
34	Analysis of the Olive Fruit Fly <i>Bactrocera oleae</i> Transcriptome and Phylogenetic Classification of the Major Detoxification Gene Families. <i>PLoS ONE</i> , 2013, 8, e66533.	1.1	55
35	Transcriptome profiling of a spiropdiclofen susceptible and resistant strain of the European red mite <i>Panonychus ulmi</i> using strand-specific RNA-seq. <i>BMC Genomics</i> , 2015, 16, 974.	1.2	54
36	Genome-enabled insights into the biology of thrips as crop pests. <i>BMC Biology</i> , 2020, 18, 142.	1.7	54

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37	Parallel evolution of cytochrome <i>b5</i> mediated bifenthrin resistance in the citrus red mite <i>Panonychus citri</i> . <i>Insect Molecular Biology</i> , 2011, 20, 135-140.	1.0	51
38	Spider mite control and resistance management: does a genome help?. <i>Pest Management Science</i> , 2013, 69, 156-159.	1.7	50
39	A G326E substitution in the glutamate-gated chloride channel 3 (GluCl3) of the two-spotted spider mite <i>Tetranychus urticae</i> abolishes the agonistic activity of macrocyclic lactones. <i>Pest Management Science</i> , 2017, 73, 2413-2418.	1.7	50
40	Targeted mutagenesis using CRISPR-Cas9 in the chelicerate herbivore <i>Tetranychus urticae</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2020, 120, 103347.	1.2	49
41	Geographical distribution and molecular insights into abamectin and milbemectin cross-resistance in European field populations of <i>Tetranychus urticae</i> . <i>Pest Management Science</i> , 2020, 76, 2569-2581.	1.7	47
42	Complex Evolutionary Dynamics of Massively Expanded Chemosensory Receptor Families in an Extreme Generalist Chelicerate Herbivore. <i>Genome Biology and Evolution</i> , 2016, 8, 3323-3339.	1.1	42
43	Genome-wide gene expression profiling reveals that cuticle alterations and P450 detoxification are associated with deltamethrin and DDT resistance in <i>Anopheles arabiensis</i> populations from Ethiopia. <i>Pest Management Science</i> , 2019, 75, 1808-1818.	1.7	42
44	Reduced proinsecticide activation by cytochrome P450 confers coumaphos resistance in the major bee parasite <i>Varroa destructor</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	42
45	A horizontally transferred cyanase gene in the spider mite <i>Tetranychus urticae</i> is involved in cyanate metabolism and is differentially expressed upon host plant change. <i>Insect Biochemistry and Molecular Biology</i> , 2012, 42, 881-889.	1.2	40
46	A massive incorporation of microbial genes into the genome of <i>Tetranychus urticae</i> , a polyphagous arthropod herbivore. <i>Insect Molecular Biology</i> , 2018, 27, 333-351.	1.0	40
47	Protocols for the delivery of small molecules to the two-spotted spider mite, <i>Tetranychus urticae</i> . <i>PLoS ONE</i> , 2017, 12, e0180658.	1.1	40
48	Systemic Use of Spinosad to Control the Two-spotted Spider Mite (Acari: Tetranychidae) on Tomatoes Grown in Rockwool. <i>Experimental and Applied Acarology</i> , 2005, 37, 93-105.	0.7	39
49	On the mode of action of bifenthrin: New evidence for a mitochondrial target site. <i>Pesticide Biochemistry and Physiology</i> , 2012, 104, 88-95.	1.6	39
50	Substrate specificity and promiscuity of horizontally transferred UDP-glycosyltransferases in the generalist herbivore <i>Tetranychus urticae</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2019, 109, 116-127.	1.2	38
51	Transcriptomic Plasticity in the Arthropod Generalist <i>Tetranychus urticae</i> Upon Long-Term Acclimation to Different Host Plants. <i>G3: Genes, Genomes, Genetics</i> , 2018, 8, 3865-3879.	0.8	36
52	Mitochondrial genome analysis of the predatory mite <i>Phytoseiulus persimilis</i> and a revisit of the <i>Metaseiulus occidentalis</i> mitochondrial genome. <i>Genome</i> , 2010, 53, 285-301.	0.9	35
53	Short term transcriptional responses of P450s to phytochemicals in insects and mites. <i>Current Opinion in Insect Science</i> , 2021, 43, 117-127.	2.2	35
54	Identification and geographical distribution of pyrethroid resistance mutations in the poultry red mite <i>Dermanyssus gallinae</i> . <i>Pest Management Science</i> , 2020, 76, 125-133.	1.7	33

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55	Genome streamlining in a minute herbivore that manipulates its host plant. <i>Elife</i> , 2020, 9, .	2.8	33
56	The effect of insecticide synergist treatment on genome-wide gene expression in a polyphagous pest. <i>Scientific Reports</i> , 2017, 7, 13440.	1.6	32
57	Resistance incidence and presence of resistance mutations in populations of <i>Tetranychus urticae</i> from vegetable crops in Turkey. <i>Experimental and Applied Acarology</i> , 2019, 78, 343-360.	0.7	30
58	A Gene Family Coding for Salivary Proteins (SHOT) of the Polyphagous Spider Mite <i>Tetranychus urticae</i> Exhibits Fast Host-Dependent Transcriptional Plasticity. <i>Molecular Plant-Microbe Interactions</i> , 2018, 31, 112-124.	1.4	29
59	Overexpression of an alternative allele of carboxyl/choline esterase 4 (CCE04) of <i>Tetranychus urticae</i> is associated with high levels of resistance to the keto- ϵ -enol acaricide spiroticlofen. <i>Pest Management Science</i> , 2020, 76, 1142-1153.	1.7	29
60	Untangling a Gordian knot: the role of a GluCl3 I321T mutation in abamectin resistance in <i>Tetranychus urticae</i> . <i>Pest Management Science</i> , 2021, 77, 1581-1593.	1.7	29
61	Identification and characterization of striking multiple insecticide resistance in a <i>Tetranychus urticae</i> field population from Greece. <i>Pest Management Science</i> , 2021, 77, 666-676.	1.7	23
62	Characterization of abamectin resistance in Iranian populations of European red mite, <i>Panonychus ulmi</i> Koch (Acari: Tetranychidae). <i>Crop Protection</i> , 2019, 125, 104903.	1.0	21
63	Molecular and genetic analysis of resistance to MET-I acaricides in Iranian populations of the citrus red mite <i>Panonychus citri</i> . <i>Pesticide Biochemistry and Physiology</i> , 2020, 164, 73-84.	1.6	21
64	Metabolic mechanisms of resistance to spiroticlofen and spiromesifen in Iranian populations of <i>Panonychus ulmi</i> . <i>Crop Protection</i> , 2020, 134, 105166.	1.0	21
65	<i>Wolbachia</i> induces strong cytoplasmic incompatibility in the predatory bug <i>Macrolophus pygmaeus</i> . <i>Insect Molecular Biology</i> , 2009, 18, 373-381.	1.0	20
66	The genome of the extremophile <i>Artemia</i> provides insight into strategies to cope with extreme environments. <i>BMC Genomics</i> , 2021, 22, 635.	1.2	20
67	Molecular characterization of pyrethroid resistance in the olive fruit fly <i>Bactrocera oleae</i> . <i>Pesticide Biochemistry and Physiology</i> , 2018, 148, 1-7.	1.6	16
68	Point mutations in the voltage-gated sodium channel gene associated with pyrethroid resistance in Iranian populations of the European red mite <i>Panonychus ulmi</i> . <i>Pesticide Biochemistry and Physiology</i> , 2019, 157, 80-87.	1.6	16
69	Acaricide resistance status and identification of resistance mutations in populations of the two-spotted spider mite <i>Tetranychus urticae</i> from Ethiopia. <i>Experimental and Applied Acarology</i> , 2020, 82, 475-491.	0.7	16
70	Intradiol ring cleavage dioxygenases from herbivorous spider mites as a new detoxification enzyme family in animals. <i>BMC Biology</i> , 2022, 20, .	1.7	14
71	QTL mapping suggests that both cytochrome P450-mediated detoxification and target-site resistance are involved in fenbutatin oxide resistance in <i>Tetranychus urticae</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2022, 145, 103757.	1.2	13
72	Combination of target site mutation and associated CYPs confers high-level resistance to pyridaben in <i>Tetranychus urticae</i> . <i>Pesticide Biochemistry and Physiology</i> , 2022, 181, 105000.	1.6	12

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73	Systemic toxicity of spinosad to the greenhouse whitefly <i>Trialeurodes vaporariorum</i> and to the cotton leaf worm <i>Spodoptera littoralis</i> . <i>Phytoparasitica</i> , 2006, 34, 102-108.	0.6	10
74	Biochemical and molecular mechanisms of acaricide resistance in <i>Dermanyssus gallinae</i> populations from Turkey. <i>Pesticide Biochemistry and Physiology</i> , 2022, 180, 104985.	1.6	8
75	Fenpyroximate resistance in Iranian populations of the European red mite <i>Panonychus ulmi</i> (Acari: Tj ETQq1 1 0.784314 rgBT /Overlo	0.7	7
76	Ticks and Tick-Borne Pathogens Abound in the Cattle Population of the Rabat-Sale Kenitra Region, Morocco. <i>Pathogens</i> , 2021, 10, 1594.	1.2	7
77	A loop-mediated isothermal amplification (LAMP) assay for rapid identification of <i>Ceratitis capitata</i> and related species. <i>Current Research in Insect Science</i> , 2022, 2, 100029.	0.8	6
78	Variation of diazinon and amitraz susceptibility of <i>Hyalomma marginatum</i> (Acari: Ixodidae) in the Rabat-Sale-Kenitra region of Morocco. <i>Ticks and Tick-borne Diseases</i> , 2022, 13, 101883.	1.1	2
79	Structural and functional characterization of β^2 -cyanoalanine synthase from <i>Tetranychus urticae</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2022, 142, 103722.	1.2	2
80	A link between host plant adaptation and pesticide resistance in the polyphagous spider mite <i>Tetranychus urticae</i> . , 2016, , .		0