# Rayko Halitschke

## List of Publications by Year in Descending Order



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| 77 papers | 7,465 citations | 41 h-index | 84 g-index |
| 84 ext. papers | 8,500 ext. citations | 7.9 avg, IF | 5.88 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 77 | Sequestration of Defenses against Predators Drives Specialized Host Plant Associations in Preadapted Milkweed Bugs (Heteroptera: Lygaeinae).. *American Naturalist*, **2022**, 199, E211-E228 | 3.7 | 2 |
| 76 | Natural history-guided omics reveals plant defensive chemistry against leafhopper pests.. *Science*, **2022**, 375, eabm2948 | 33.3 | 2 |
| 75 | Natural variation in linalool metabolites: One genetic locus, many functions?. *Journal of Integrative Plant Biology*, **2021**, 63, 1416-1421 | 8.3 | 0 |
| 74 | Honeybee colonies compensate for pesticide-induced effects on royal jelly composition and brood survival with increased brood production. *Scientific Reports*, **2021**, 11, 62 | 4.9 | 3 |
| 73 | Controlled hydroxylations of diterpenoids allow for plant chemical defense without autotoxicity. *Science*, **2021**, 371, 255-260 | 33.3 | 20 |
| 72 | Specific decorations of 17-hydroxygeranyllinalool diterpene glycosides solve the autotoxicity problem of chemical defense in Nicotiana attenuata. *Plant Cell*, **2021**, 33, 1748-1770 | 11.6 | 5 |
| 71 | Light dominates the diurnal emissions of herbivore-induced volatiles in wild tobacco. *BMC Plant Biology*, **2021**, 21, 401 | 5.3 | 2 |
| 70 | microRNA390 modulates Ss tolerance response to herbivory. *Plant Direct*, **2021**, 5, e350 | 3.3 | 2 |
| 69 | Syringaldehyde is a novel smoke-derived germination cue for the native fire-chasing tobacco, Nicotiana attenuata. *Seed Science Research*, **2021**, 31, 292-299 | 1.3 | 0 |
| 68 | Information theory tests critical predictions of plant defense theory for specialized metabolism. *Science Advances*, **2020**, 6, eaaz0381 | 14.3 | 14 |
| 67 | ZEITLUPE facilitates the rhythmic movements of Nicotiana attenuata flowers. *Plant Journal*, **2020**, 103, 308-322 | 6.9 | 1 |
| 66 | TOC1 in Nicotiana attenuata regulates efficient allocation of nitrogen to defense metabolites under herbivory stress. *New Phytologist*, **2020**, 228, 1227-1242 | 9.8 | 5 |
| 65 | Determining the scale at which variation in a single gene changes population yields. *ELife*, **2020**, 9, | 8.9 | 1 |
| 64 | Strigolactone signaling regulates specialized metabolism in tobacco stems and interactions with stem-feeding herbivores. *PLoS Biology*, **2020**, 18, e3000830 | 9.7 | 8 |
| 63 | The Clock Gene TOC1 in Shoots, Not Roots, Determines Fitness of under Drought. *Plant Physiology*, **2019**, 181, 305-318 | 6.6 | 5 |
| 62 | Mate Selection in Self-Compatible Wild Tobacco Results from Coordinated Variation in Homologous Self-Incompatibility Genes. *Current Biology*, **2019**, 29, 2020-2030.e5 | 6.3 | 8 |
| 61 | Symbiont-mediated chemical defense in the invasive ladybird. *Ecology and Evolution*, **2019**, 9, 1715-1729 | 2.8 | 9 |

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| 60 | Using natural variation to achieve a whole-plant functional understanding of the responses mediated by jasmonate signaling. *Plant Journal*, **2019**, 99, 414-425 | 6.9 | 6 |
| 59 | Epigenetic Mechanisms Are Involved in Sex-Specific -Generational Immune Priming in the Lepidopteran Model Host. *Frontiers in Physiology*, **2019**, 10, 137 | 4.6 | 28 |
| 58 | An unbiased approach elucidates variation in ()-(+)-linalool, a context-specific mediator of a tri-trophic interaction in wild tobacco. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 14651-14660 | 11.5 | 20 |
| 57 | Quantification of Blumenol Derivatives as Leaf Biomarkers for Plant-AMF Association. *Bio-protocol*, **2019**, 9, e3301 | 0.9 | 3 |
| 56 | Shoot phytochrome B modulates reactive oxygen species homeostasis in roots via abscisic acid signaling in Arabidopsis. *Plant Journal*, **2018**, 94, 790-798 | 6.9 | 18 |
| 55 | Jasmonate signaling makes flowers attractive to pollinators and repellant to florivores in nature. *Journal of Integrative Plant Biology*, **2018**, 60, 190-194 | 8.3 | 10 |
| 54 | Environmentally sustainable pest control options for Drosophila suzukii. *Journal of Applied Entomology*, **2018**, 142, 3-17 | 1.7 | 48 |
| 53 | Blumenols as shoot markers of root symbiosis with arbuscular mycorrhizal fungi. *ELife*, **2018**, 7, | 8.9 | 35 |
| 52 | The decoration of specialized metabolites influences stylar development. *ELife*, **2018**, 7, | 8.9 | 18 |
| 51 | Differential and Synergistic Functionality of Acylsugars in Suppressing Oviposition by Insect Herbivores. *PLoS ONE*, **2016**, 11, e0153345 | 3.7 | 42 |
| 50 | Tri-trophic effects of seasonally variable induced plant defenses vary across the development of a shelter building moth larva and its parasitoid. *PLoS ONE*, **2015**, 10, e0120769 | 3.7 | 3 |
| 49 | Phylogenetic correlations among chemical and physical plant defenses change with ontogeny. *New Phytologist*, **2015**, 206, 796-806 | 9.8 | 44 |
| 48 | Plant mating systems affect adaptive plasticity in response to herbivory. *Plant Journal*, **2014**, 78, 481-90 | 6.9 | 15 |
| 47 | Quantitative trait loci regulating the fatty acid profile of acylsugars in tomato. *Molecular Breeding*, **2014**, 34, 1201-1213 | 3.4 | 23 |
| 46 | Dietary plant phenolic improves survival of bacterial infection in Manduca sexta caterpillars. *Entomologia Experimentalis Et Applicata*, **2013**, 146, 321-331 | 2.1 | 16 |
| 45 | Leaf herbivory increases plant fitness via induced resistance to seed predators. *Ecology*, **2013**, 94, 966-97 | 4.6 | 50 |
| 44 | Herbivore damage-induced production and specific anti-digestive function of serine and cysteine protease inhibitors in tall goldenrod, Solidago altissima L. (Asteraceae). *Planta*, **2013**, 237, 1287-96 | 4.7 | 34 |
| 43 | Salicylic acid 3-hydroxylase regulates Arabidopsis leaf longevity by mediating salicylic acid catabolism. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 14807-12 | 11.5 | 148 |

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| 42 | The effect of polychlorinated biphenyls on the song of two passerine species. *PLoS ONE*, **2013**, 8, e73471 | 3.7 | 18 |
| 41 | Cardenolides in nectar may be more than a consequence of allocation to other plant parts: a phylogenetic study of Asclepias. *Functional Ecology*, **2012**, 26, 1100-1110 | 5.6 | 46 |
| 40 | Overcompensating plants: their expression of resistance traits and effects on herbivore preference and performance. *Entomologia Experimentalis Et Applicata*, **2012**, 143, 245-253 | 2.1 | 17 |
| 39 | Herbivory in the previous generation primes plants for enhanced insect resistance. *Plant Physiology* , **2012**, 158, 854-63 | 6.6 | 316 |
| 38 | Direct and indirect root defences of milkweed (Asclepias syriaca): trophic cascades, trade-offs and novel methods for studying subterranean herbivory. *Journal of Ecology*, **2011**, 99, 16-25 | 6 | 95 |
| 37 | Herbivore-specific elicitation of photosynthesis by mirid bug salivary secretions in the wild tobacco Nicotiana attenuata. *New Phytologist*, **2011**, 191, 528-535 | 9.8 | 56 |
| 36 | Herbivory-mediated pollinator limitation: negative impacts of induced volatiles on plant-pollinator interactions. *Ecology*, **2011**, 92, 1769-80 | 4.6 | 127 |
| 35 | Oxylipin channelling in Nicotiana attenuata: lipoxygenase 2 supplies substrates for green leaf volatile production. *Plant, Cell and Environment*, **2010**, 33, 2028-40 | 8.4 | 70 |
| 34 | Evolutionary trade-offs in plants mediate the strength of trophic cascades. *Science*, **2010**, 327, 1642-4 | 33.3 | 101 |
| 33 | Salicylate-mediated interactions between pathogens and herbivores. *Ecology*, **2010**, 91, 1075-82 | 4.6 | 119 |
| 32 | Simultaneous analysis of tissue- and genotype-specific variation in Solidago altissima (Asteraceae) rhizome terpenoids, and the polyacetylene dehydromatricaria ester. *Chemoecology*, **2010**, 20, 255-264 | 2 | 17 |
| 31 | Quorum sensing regulates electric current generation of Pseudomonas aeruginosa PA14 in bioelectrochemical systems. *Electrochemistry Communications*, **2010**, 12, 459-462 | 5.1 | 94 |
| 30 | Evidence for adaptive radiation from a phylogenetic study of plant defenses. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 18067-72 | 11.5 | 111 |
| 29 | The potato R locus codes for dihydroflavonol 4-reductase. *Theoretical and Applied Genetics*, **2009**, 119, 931-7 | 6 | 45 |
| 28 | Testing the potential for conflicting selection on floral chemical traits by pollinators and herbivores: predictions and case study. *Functional Ecology*, **2009**, 23, 901-912 | 5.6 | 171 |
| 27 | An ecological analysis of the herbivory-elicited JA burst and its metabolism: plant memory processes and predictions of the moving target model. *PLoS ONE*, **2009**, 4, e4697 | 3.7 | 45 |
| 26 | Physiological integration of roots and shoots in plant defense strategies links above- and belowground herbivory. *Ecology Letters*, **2008**, 11, 841-51 | 10 | 156 |
| 25 | Constitutive and induced defenses to herbivory in above- and belowground plant tissues. *Ecology*, **2008**, 89, 392-406 | 4.6 | 201 |

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| 24 | Shared signals -Salarm callsSfrom plants increase apparency to herbivores and their enemies in nature. *Ecology Letters*, **2008**, 11, 24-34 | 10 | 208 |
| 23 | Effects of plant vascular architecture on aboveground-belowground-induced responses to foliar and root herbivores on Nicotiana tabacum. *Journal of Chemical Ecology*, **2008**, 34, 1349-59 | 2.7 | 18 |
| 22 | Co(i)-ordinating defenses: NaCOI1 mediates herbivore- induced resistance in Nicotiana attenuata and reveals the role of herbivore movement in avoiding defenses. *Plant Journal*, **2007**, 51, 79-91 | 6.9 | 204 |
| 21 | Tuning the herbivore-induced ethylene burst: the role of transcript accumulation and ethylene perception in Nicotiana attenuata. *Plant Journal*, **2007**, 51, 293-307 | 6.9 | 119 |
| 20 | Specificity and complexity: the impact of herbivore-induced plant responses on arthropod community structure. *Current Opinion in Plant Biology*, **2007**, 10, 409-14 | 9.9 | 116 |
| 19 | Independently silencing two JAR family members impairs levels of trypsin proteinase inhibitors but not nicotine. *Planta*, **2007**, 226, 159-67 | 4.7 | 113 |
| 18 | Using SmuteSplants to translate volatile signals. *Plant Journal*, **2006**, 45, 275-91 | 6.9 | 126 |
| 17 | Volatile signaling in plant-plant interactions: "talking trees" in the genomics era. *Science*, **2006**, 311, 812-5 | 33.3 | 629 |
| 16 | Priming of plant defense responses in nature by airborne signaling between Artemisia tridentata and Nicotiana attenuata. *Oecologia*, **2006**, 148, 280-92 | 2.9 | 288 |
| 15 | NicotineSs defensive function in nature. *PLoS Biology*, **2004**, 2, E217 | 9.7 | 313 |
| 14 | Silencing of hydroperoxide lyase and allene oxide synthase reveals substrate and defense signaling crosstalk in Nicotiana attenuata. *Plant Journal*, **2004**, 40, 35-46 | 6.9 | 133 |
| 13 | Individual variability in herbivore-specific elicitors from the plantSs perspective. *Molecular Ecology*, **2004**, 13, 2421-33 | 5.7 | 80 |
| 12 | Jasmonates and Related Compounds in Plant-Insect Interactions. *Journal of Plant Growth Regulation*, **2004**, 23, 238-245 | 4.7 | 101 |
| 11 | Silencing the jasmonate cascade: induced plant defenses and insect populations. *Science*, **2004**, 305, 665-8 | 33.3 | 432 |
| 10 | Antisense LOX expression increases herbivore performance by decreasing defense responses and inhibiting growth-related transcriptional reorganization in Nicotiana attenuata. *Plant Journal*, **2003**, 36, 794-807 | 6.9 | 289 |
| 9 | Molecular interactions between the specialist herbivore Manduca sexta (lepidoptera, sphingidae) and its natural host Nicotiana attenuata. VI. Microarray analysis reveals that most herbivore-specific transcriptional changes are mediated by fatty acid-amino acid conjugates. *Plant Physiology*, **2003**, 131, 1894-902 | 6.6 | 170 |
| 8 | Volatile signaling in plant-plant-herbivore interactions: what is real?. *Current Opinion in Plant Biology*, **2002**, 5, 351-4 | 9.9 | 151 |
| 7 | Agrobacterium-mediated transformation of Nicotiana attenuata, a model ecological expression system. *Chemoecology*, **2002**, 12, 177-183 | 2 | 264 |

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| 6 | A knock-out mutation in allene oxide synthase results in male sterility and defective wound signal transduction in Arabidopsis due to a block in jasmonic acid biosynthesis. *Plant Journal*, **2002**, 31, 1-12 | 6.9 | 462 |
| 5 | Merging molecular and ecological approaches in plant-insect interactions. *Current Opinion in Plant Biology*, **2001**, 4, 351-8 | 9.9 | 153 |
| 4 | Molecular interactions between the specialist herbivore Manduca sexta (Lepidoptera, Sphingidae) and its natural host Nicotiana attenuata. III. Fatty acid-amino acid conjugates in herbivore oral secretions are necessary and sufficient for herbivore-specific plant responses. *Plant Physiology*, **2001**, 125, 711-7 | 6.6 | 445 |
| 3 | Ecophysiological comparison of direct and indirect defenses in Nicotiana attenuata. *Oecologia*, **2000**, 124, 408-417 | 2.9 | 194 |
| 2 | Predation drives specialized host plant associations in preadapted milkweed bugs (Heteroptera: Lygaeinae) | | 2 |
| 1 | Specific decorations of 17-hydroxygeranyllinalool diterpene glycosides solve the autotoxicity problem of chemical defense in Nicotiana attenuata | | 1 |