CURRICULUM VITAE

Name: Zachary P. Cohen
Title: Research Molecular Biologist
Address: 2771 F and B Road, College Station, TX 77845
Telephone: (979) 260-9301 **Fax:** (979) 260-9386
E-mail: zachary.cohen@usda.gov
ORCID ID: 0000-0002-6251-5611

A. Education/Training

INSTITUTION AND LOCATION	DEGREE	YEAR (s)	FIELD OF STUDY
University of Wisconsin-Madison	Ph.D.	2021	Entomology
Cornell University	M.S.	2015	Entomology
University of Florida	B.S.	2012	Biology

B. Positions and Employment

- October 2021 to present: Research Molecular Biologist (postdoc), United States Department of Agriculture, Agricultural Research Service, Insect Control and Cotton Disease Research Unit, College Station, TX.
- August 2016 – December 2021: Doctoral Student. University of Wisconsin-Madison. Madison, WI.
- August 2013-December 2015: Masters Student. Cornell University. Ithaca, NY

C. Awards and Honors

- 2021, Headquarters funded ARS Postdoctoral Research Associate Program Class of 2021
- 2020-2021. University of Wisconsin Distinguished Graduate Fellowship
- 2016-2017. Lillian & Alex Feir Graduate Student Fellowship for excellent academic performance and research productivity

D. Professional Experience

Dr. Zachary Cohen has over ten years of experience as an insect geneticist and evolutionary biologist. His contributions on topics in genomics, transcriptomics, insecticide resistance, evolutionary biology and population genetics have resulted in 15 peer-reviewed articles and book chapters with over 130 citations.

E. Grants Received

- Cohen, Z.C. 2020-2021. University of Wisconsin Distinguished Graduate Fellowship ($32,127)
- Cohen, Z.C. 2016-2017. Lillian & Alex Feir Graduate Student Fellowship for excellent academic performance and research productivity.

LIST OF PUBLICATIONS (last four years)

Zachary P. Cohen, Lindsey C. Perkin*, Tanya Wagner, Al Bell, Jinggao Liu, Charles Suh, and Joshua Udall. *Nematode Resistance Loci of Upland Cotton are Associated with Structural Differences.* G3 Genes|Genomes|Genetics. June 2024. https://doi.org/10.1093/g3journal/jkae140

Joe C. Gunn, Blair M. Christensen, Erika M. Bueno, **Zachary P. Cohen**, Alexander S. Kissonergis, Yolanda H. Chen. *Agricultural Insect Pests as Models for Studying Stress-Induced Evolutionary Processes.* Insect Molecular Biology, April 2024. IMB-COM-23-187.R1.

Zachary P. Cohen, Michael Crossley, Robert Mitchell, Patamarerk Engsontia, Yolanda Chen, and Sean Schoville*. *Evolution of chemosensory genes in Colorado potato beetle, Leptinotarsa decemlineata.* Journal of Evolutionary Biology, December 2023, voad004, https://doi.org/10.1093/jeb/voad004

Kristian Brevik, Sean D Schoville, Anna Muszewska, Benjamin Pélissié, **Zachary P. Cohen**, Victor Izzo, Yolanda H Chen. *Transposable elements differ between geographic populations of the Colorado potato beetle, Leptinotarsa decemlineata (Coleoptera: Chrysomelidae).* Environmental Entomology, Volume 52, Issue 6, December 2023, 1162–1171, https://doi.org/10.1093/ee/nvad105

Zachary P. Cohen, Sean Schoville, John Bamberg*, Benjamin Bradford. *Colorado Potato Beetle (Leptinotarsa decemlineata) Prefer Solanum jamesii Populations on which they were Originally Observed in the Wild.* March 2023. Am. J. Potato Res. 100, 247–25. DOI: https://doi.org/10.1007/s12230-023-09911-9

Zachary P. Cohen*, Sean D. Schoville, David J. Hawthorne. *The Role of Structural Variants in Pest Adaptation and Genome Evolution of the Colorado potato beetle, Leptinotarsa decemlineata (Say).* Molecular Ecology. March 2023. DOI: 10.1111/mec.16838

Lindsey C. Perkin *, **Zachary P. Cohen**, Jason W. Carlson, Charles P. C. Suh. *The Transcriptomic Response of the Boll Weevil, Anthonomus grandis grandis Boheman (Coleoptera: Curculionidae), following exposure to the organophosphate insecticide malathion Insects.* February 16, 2023. DOI:10.3390/insects14020197

Yolanda H. Chen*, **Zachary P. Cohen**, Erika M. Bueno, Blair M. Christensen, Sean D. Schoville. *Rapid evolution of insecticide resistance in the Colorado potato beetle, Leptinotarsa decemlineata.* February 2023. Current Opinion Insect Science. 10.1016/j.cois.2022.101000

Zachary P. Cohen*, Yolanda H. Chen, Russell Groves, Sean. D. Schoville. *Evidence of hard selective sweeps suggests independent adaptation to insecticides in Colorado potato beetle (Coleoptera: Chrysomelidae) populations.* October 2022. Evolutionary Applications. DOI: 10.1111/eva.13498

Zachary P. Cohen, Lindsey C. Perkin*, Sheina B. Sim, Amanda R Stahlke, Scott M. Geib, Anna K. Childers, Timothy P. L. Smith, Charles Suh. *Insight into weevil biology from a reference quality genome of the boll weevil, Authonomus grandis grandis Boheman (Coleoptera: Curculionidae).* G3 Genes|Genomes|Genetics, 2022; doi: 10.1093/g3journal/jkac309

Zachary P. Cohen, Olivier François, Sean D. Schoville*. *Museum Genomics of an Agricultural Super-Pest, the Colorado Potato Beetle, Leptinotarsa decemlineata (Chrysomelidae), Provides*

Evidence of Adaptation from Standing Variation. August 2022. Integrative and Comparative Biology. DOI 10.1093/icb/icac137.

Benjamin Pélissié, Yolanda H. Chen, **Zachary P. Cohen**, Michael S. Crossley, David J. Hawthorne, Victor Izzo, Sean D. Schoville*. *Genome resequencing reveals rapid, repeated evolution in the Colorado potato beetle, Leptinotarsa decemlineata*. Molecular Biology and Evolution. January 2022 DOI: 10.1093/molbev/msac016

Zachary P. Cohen*, Kristian Brevik, Yolanda H. Chen, David J. Hawthorne, Benjamin D. Weibel§, Sean D. Schoville. *Elevated rates of positive selection drive the evolution of pestiferousness in the Colorado potato beetle (Leptinotarsa decemlineata, Say).* Molecular Ecology 2021; 00: 1– 18. https://doi.org/10.1111/mec.15703