

Aaron Cato

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Education

2015-Present **Ph.D. in Entomology (Anticipated completion: May, 2019)**

University of Arkansas, Fayetteville, AR
Dissertation title: Evaluation of Rice Stink Bug Damage and Monitoring
Techniques in Arkansas Rice.
Advisor: Gus Lorenz

2015 **M.S. in Entomology**

Kansas State University, Manhattan, KS
Thesis title: Geographic variation of phosphine resistance in the red flour
beetle *Tribolium castaneum* (Herbst).
Advisor: Tom Phillips

2013: **B.S. in Biological Sciences**

Arkansas State University, Jonesboro, AR

Relevant Experience

June 2013-2015: Graduate Research Assistant, Kansas State University, Manhattan, KS

Worked with Dr. Tom Phillips in stored product insect research lab.
Duties/skills included identifying and performing bioassays on stored
product insect pests, working safely with phosphine gas on a daily basis,
assisting in a variety of sampling techniques including climbing in grain
bins, and rearing multiple species of insects.

Nov 2011-May 2013: Experiential Learning Fellowship, Arkansas State University,
Jonesboro, AR

Worked with Dr. Tanya McKay on red flour beetle and stored-rice
research. Duties/skills included identifying stored product pests,
rearing lab colonies of red flour beetles, and preparing and retrieving traps
for field experiments.

Summer 2011-12: Tacker Farms, West Ridge, AR

Duties/skills included operating tractors, irrigating fields, fixing irrigation problems, fixing machinery, and mixing pesticides for field application.

Publications

Cato, A. J., B. Elliot, M. Nayak, and T. W. Phillips. 2017. Geographic Variation in Phosphine Resistance among North American Populations of the Red Flour Beetle, *Tribolium castaneum* (Herbst) (Coleoptera: Tenebrionidae). *Journal of Economic Entomology*: 1–7.
doi: 10.1093/jee/tox091

Afful, E., **A. Cato**, D. Erram, and B. Jancke. 2016. What is the single best tool to reduce malaria cases throughout the world? Genetically-engineered mosquitoes. *American Entomologist* 62: 103-105.

Publications in Review

Cato, A. J., G. M. Lorenz, N. Seiter, G. Studebaker, W. A. Plummer, H. M. Chaney, and J. L. Black. 2017. Assessment of Rice Stink Bug, *Oebalus pugnax*, Damage to Grain Sorghum. Proceedings of the Beltwide Cotton Conference.

Cato, A.J., G.M. Lorenz, J.T. Hardke, T.L. Clayton, N.M. Taillon, D. Frizell, H.M. Chaney, W.A. Plummer, and J.L. Black. 2017. Analysis of Variation in Sweep Net Technique in Rice. B.R. Wells Rice Research Series.

Black, J. L., G. M. Lorenz, N. M. Taillon, W. A. Plummer, H. M. Chaney, and **A. J. Cato**. Horizontal transmission of *Helicoverpa* Nucleopolyhedrosis Virus (NPV) in soybean fields infested with corn earworm. National Beltwide Cotton Proceedings. Dallas, TX. January 2017.

Cato, A.J., G. M. Lorenz, J. T. Hardke, N. M. Taillon, H.M. Chaney, W. A. Plummer, J. Black, and T. L. Clayton. 2017. Evaluation of Rice Stink Bug, *Oebalus pugnax*, Damage to Maturing Rice Kernels. B.R. Wells Rice Research Series.

Clayton, T.L., G.M. Lorenz, J.T. Hardke, **A.J. Cato**, G.J. Lee, H.M. Chaney, E. Castaneda-Gonzalez, D.L. Frizzell, N. Taillon, J.L. Black, and A. Plummer. 2017. Effect of Rice Stink Bug, *Oebalus pugnax*, on Rice Quality and Yields. B.R. Wells Rice Research Series.

G.M. Lorenz, J. Hardke, T. Clayton, N. Taillon, D. Frizzell, **A. Cato**, J. Black, W.A.Plummer, H.M.Chaney. 2017. Potential Exposure of Honey Bees to Neonicotinoid Insecticides in Rice. B.R. Wells Rice Research Series.

N.M. Taillon, G.M. Lorenz, W.A. Plummer, H.M. Chaney, **A. Cato**, J. Black. 2017. Evaluation of Insecticide Seed Treatment Combinations for Control of Rice Water Weevil, *Lissorhoptrus oryzophilus*. B.R. Wells Rice Research Series.

Lorenz, G., F. Bourland, N. Taillon, A. Plummer, M. Chaney, J. Black, and **A. Cato**. 2017. Evaluating thrips tolerance in selected cotton cultivars. Cotton Research Series.

Chaney, M., G. Lorenz, N. Taillon, A. Plummer, J. Black, and **A. Cato**. 2017. Alternatives to neonicotinoids for control of thrips in cotton. Cotton Research Series.

Taillon, N., G. Lorenz, A. Plummer, H. M. Chaney, J. Black, and **A. Cato**. 2017. Comparison of control of Heliothines in conventional and dual gene cotton. Cotton Research Series.

Paper Presentations

Cato, A. J., J. Hardke, and G. M. Lorenz. Evaluation of Rice Stink Bug, *Oebalus pugnax*, Damage to Maturing Rice Kernels. Oral Presentation at the Southeastern Branch Entomological Society of America, Memphis, TN, March, 2017.

Cato, A. J., G. M. Lorenz, N. Seiter, G. Studebaker, W. A. Plummer, H. M. Chaney, and J. L. Black. Assessment of Rice Stink Bug, *Oebalus pugnax*, Damage to Grain Sorghum. Oral Presentation at the Beltwide Cotton Conference, Dallas, January, 2017.

Cato, A., J. Hardke, and G. Lorenz. Evaluation of Rice Stink Bug, *Oebalus pugnax*, Damage to Maturing Rice Kernels. Oral Presentation at the Arkansas Crop Protection Conference, Fayetteville, AR, November, 2016.

Cato, A., J. Hardke, and G. Lorenz. Evaluation of *Oebalus pugnax* impact on varying stages of rice development. Oral presentation at the International Congress of Entomology, Orlando, FL, September, 2016.

Cato, A., Z. Chen, and T. W. Phillips. Geographic variation of phosphine resistance in the red flour beetle *Tribolium castaneum* (Herbst). Oral presentation at the Entomological Society of America National Meeting, Portland, OR, November, 2014.

Poster Presentations

Cato, A. and T. W. Phillips. Evaluating rapid bioassays to assess phosphine resistance in the red flour beetle, *Tribolium castaneum* (Herbst). Poster Presentation at the North Central Branch meeting of the Entomological Society of America, Manhattan, KS, March, 2015.

Cato, A., L. Starkus., R. Hampton, and T. McKay. A comparison of arthropods taking refuge under dome traps in four rice mills. Poster Presentation at the Kansas Entsoc. Pittsburg, Kansas, April, 2013.

Awards and Notable Achievements

University of Arkansas

First Place, Southeastern Branch Entomological Society of America, Robert T. Gast
Ph.D. Student Paper Competition Award. 2017

First Place, Cotton Insect Research & Control Conference, Gary A. Herzog Ph. D.
Student Oral Competition Award. 2017
Third Place, ACPA Ph.D. Student Oral Competition. 2016

Kansas State University

Member of winning team in Student Debate at the 2014 ESA National Meeting
Second Place, K-State Department of Entomology Mudge Week 3-Minute-Thesis
Competition. April 2014
Most Valuable Popenoe (K-State Entomology Dept. Service Award). April 2014

Arkansas State University

Outstanding Graduating Senior in the Bachelor of Science, Biology Emphasis. 2013
Internal Student and Undergraduate Research Funds (SURF) award. 2013
Experiential Learning Fellowship, Arkansas State University. Jan 2010 – May 2013

Professional Membership and Certifications

Entomological Society of America 2013 – Present
Arkansas Pesticide Applicator Licensee and Certification.
Research and Demonstration

Department Service, Clubs, and Community Service

Ph. D. Program, The University of Arkansas

Head of volunteer organization, Woolsey Wet Prairie Bioblitz, Fayetteville, AR,
Outreach through the Isely-Baerg Entomology Club 2015-Present
2016 Insect Festival Linnaean game member 2015-Present

M.S. Program, Kansas State University

Student representative, Department of Entomology, Course & Curriculum Committee.
2014-2015
Volunteer, Kansas State University Insect Zoo. May-August 2014
Popenoe Entomology Club, Co-Chair of PEC FFA Coordinator (Club Officer) 2014-2015
Linnaean game member, 2013-2014