

# Ariel Rivers

## ***EDUCATION:***

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- Jan. 2016     **Ph.D., Dual-title in Entomology and International Agriculture and Development**  
Pennsylvania State University, University Park, Pennsylvania  
Dissertation: Effects of management on arthropod communities in organic and conservation agricultural systems in Pennsylvania and Mexico
- Sept. 2015    **Graduate Certificate in College Teaching**  
Pennsylvania State University, University Park, Pennsylvania
- May 2009     **M.S., Environmental Studies**  
San Jose State University, San Jose, California  
Thesis: Conservation and Pasture Value of Remnant Trees in a Tropical Agroecosystem
- Sept. 2004    **B.S., Soil and Water Science; minor in International Agricultural Development**  
University of California, Davis, Davis, California

## ***RECENT WORK EXPERIENCE:***

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- Pacific Region Representative** Jan. 2018 – Present  
National Association of Conservation Districts, California
- Program Manager, Global Locust Initiative** June 2017 – Dec. 2018  
School of Sustainability, Arizona State University, Tempe, Arizona
- Postharvest Coordinator, Latin America** Feb. 2016 – June 2017  
International Maize and Wheat Improvement Center (CIMMYT), Texcoco de Mora, Mexico
- Science Policy Fellow** Nov. 2014 – Nov. 2016  
Entomological Society of America, Washington, District of Columbia
- Graduate Student Research Assistant** Oct. 2011 – Jan. 2016  
Department of Entomology, Pennsylvania State University, University Park, Pennsylvania
- Soil Conservationist** Aug. 2010 – Sept. 2011  
USDA Natural Resources Conservation Service (NRCS), Hanford, California
- AmeriCorps Garden Coordinator** Sept. 2009 – Aug. 2010  
Clark County Public Health, Washington Service Corps, Vancouver, Washington
- Research Assistant** Aug. 2006 – May 2009  
Department of Environmental Studies, San José State University, San José, California
- Environmental Scientist** Apr. 2005 – Dec. 2008  
Marshall Islands Dose Assessment and Radioecology Program, Lawrence Livermore National Laboratory (LLNL), Livermore, California

## ***PUBLICATIONS:***

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### **Peer Reviewed Publications:**

- Elsensohn, J., Anderson, T., Cryan, J., Durham, T., Gandhi, K., Gordon, J., Krell, R., Pimslar, M., **Rivers, A.N.**, Spafford, H. 2019. From research to policy: scientists speaking for science. *Annals of the Entomological Society of America* 112 (2): 75-78. doi: 10.1093/aesa/say057
- Rivers, A.N.**, Mullen, C., and Barbercheck, M.E. 2018. Cover crop management alters arthropod community composition and predation in an organically managed reduced tillage cropping system. *Environmental Entomology* 47 (2): 340-355. doi: 10.1093/ee/nvx149
- Rivers, A.N.**, Mullen, C., Wallace, J., and Barbercheck, M.E. 2017. Cover crop-based reduced tillage system influences Carabidae (Coleoptera) activity, diversity and trophic group during transition to organic

production. *Renewable Agriculture and Food Systems*, pp. 1-14. doi: 10.1017/S1742170516000466.

**Rivers, A.N.**, Barbercheck, M.E., Govaerts, B., and Verhulst, N. 2016. Conservation agriculture affects arthropod community composition in a rainfed maize-wheat system in central Mexico. *Applied Soil Ecology* 100: 81-90. doi: 10.1016/j.apsoil.2015.12.004

Hamilton, T.F., Jernström, J., Martinelli, R.E., Kehl, S.R., Eriksson, M., Williams, R.W., Bielewski, M., **Rivers, A.N.**, Brown, T.A., Tumey, S.J., and Betti, M. 2009. Frequency distribution, isotopic composition and physical characterization of plutonium-bearing particles from the Fig-Quince zone on Runit Island, Enewetak Atoll. *Journal of Radioanalytical and Nuclear Chemistry* 282: 1019–1026.

#### **Extension Publications:**

**Rivers, A.N.**, González Regalado, J., and Verhulst, N. 2017. Tecnologías herméticas y alternativas para disminuir pérdidas de maíz almacenado en México; resultados de cuatro plataformas de poscosecha en el Hub Valles Altos Maíz en 2016. *Enlace: La Revista de la Agricultura de Conservación* 37: 48-52.

**Rivers, A.N.**, González Regalado, J., Vilchis Ramos, R., Castillo Villasenor, L., and Verhulst, N. 2017. Potencial de tecnologías herméticas para reducir pérdidas poscosecha por insectos: resultados de módulos poscosecha en 2016. *Boletín Enlace* 287. Available online: <https://goo.gl/rHm9fn>

**Rivers, A.N.** 2017. Uso de polvos como una práctica alternativa para el almacenamiento de granos básicos. *Enlace: La Revista de la Agricultura de Conservación* 36: 33-34.

**Rivers, A.N.**, González Regalado, J., Reyes Zavala, M., Vilchis Ramos, R., and Ramírez Martínez, G. 2016. Poscosecha de granos básicos en el medio rural. *Claridades Agropecuarias* 271: 7-10.

#### **PRESENTATIONS:**

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##### **Select Workshops and Trainings**

- Organizer, “Global Locust Initiative First International Conference.” **Arizona State University**. Tempe, AZ, Apr. 11-14, 2018.
- Organizer, “Global Locust Initiative ASU Launch Event.” **Arizona State University**. Tempe, Arizona, Mar. 30, 2018.
- Organizer, “Global Locust Initiative: Open Forum and Discussion for New Interdisciplinary & Cross-Sectoral Initiative at ASU.” **Entomological Society of America**, Denver, Colorado, Nov. 6, 2017.
- Organizer, “Curso Específico Poscosecha BAJ/INGP.” **CIMMYT Hub Bajío y Hub Intermedio**. Texcoco de Mora, Mexico, May 16-18, 2017.
- Organizer, “Curso específico Poscosecha - Región Sur.” **CIMMYT Hub Chiapas**. Villaflores, Chiapas, Mexico, Sept. 6-8, 2016.
- Organizer, “Reunión Anual.” **CIMMYT Grupo Interinstitucional de Poscosecha**. Sept. 20, 2016.
- Organizer, “Curso específico de Poscosecha.” **CIMMYT Hub Valles Altos Maíz**. Texcoco de Mora, Mexico, May 3-5, 2016.

##### **Select Research Presentations:**

- Invited Speaker, “Mulch affects arthropod assemblage associated with field crops grown under conservation agricultural practices in North America.” **International Congress of Entomology**. Orlando, FL, Sept. 26, 2016.
- Invited Speaker, “Poscosecha de granos básicos: información y acciones a nivel de pequeños productores.” **FAO Seminario técnico de medición y análisis de pérdidas de alimentos en México – Magnitud, causas y soluciones**. Mexico City, Mexico, Sept. 21, 2016.
- Invited Speaker, “Actividades de poscosecha en CIMMYT: tecnologías herméticas de almacenamiento para pequeños productores” **Sistema Nacional de Almacenamiento Agroalimentario. Diálogo sobre resultados del Estudio: FAO-Banco Mundial**. Mexico City, Mexico, June 2, 2016.
- Presentation, “Crop sequence and cover crop species affect Carabidae assemblages in an organically-managed cover-crop based reduced tillage cropping system.” **Entomological Society of America Annual Meeting**. Minneapolis, MN, Nov. 16, 2015.

- Presentation, “Conservation agriculture contributes to higher predator abundance in central Mexico.” **Entomological Society of America Annual Meeting**. Portland, OR, Nov. 17, 2014.
- Presentation, “Arthropod Community Composition in Conservation Agriculture at Two North American Sites.” **Pennsylvania State University Department of Entomology Student Colloquium**. University Park, PA, June 5, 2014.
- Presentation, “Conservation Agriculture and Soil-Dwelling Arthropods.” **Pennsylvania State University Department of Entomology Student Colloquium**. University Park, PA, Dec. 5, 2013.

#### **Select Extension Presentations:**

- Invited Speaker, “Poscosecha de granos básicos: información y acciones a nivel de pequeños productores.” **Colaboraciones de CIMMYT y CBTa para reducir pérdidas poscosecha**. Guachochi, Chihuahua, Mexico, Feb. 9, 2017.
- Online Webinar, “No Pesticides, No Problem! Pest Management in Organic Agriculture.” **American Society of Agronomy**. Conducted in collaboration with Drs. Mary Barbercheck and Ebony Murrell, Nov. 3, 2015.
- Presentation, “Los Cambios en la Comunidad de Depredadores del Suelo Durante la Transición a la Agricultura Orgánica.” **Organización Internacional Agropecuario de Argentina Site Visit**. Russel E. Larson Research and Extension Center. Pennsylvania State University, June 18, 2015.
- Presentation, “Agricultura de Conservación y los Artrópodos del Suelo.” **International Maize and Wheat Improvement Center**. Texcoco de Mora, Mexico, Oct. 28, 2013.

#### **Select Outreach Presentations:**

- Co-Presenter, “Global Locust Initiative.” **School of Sustainability Undergraduate Welcome Camp**. Arizona State University, Prescott, AZ, Aug. 18, 2018.
- Presenter, “The Global Locust Initiative: Objectives, Activities, and Partnerships.” **Global Locust Initiative First International Conference**. Arizona State University. Tempe, Arizona, Apr. 12, 2018.
- Presenter, “The Global Locust Initiative: Objectives, Activities, and Partnerships.” **Global Locust Initiative ASU Launch Event**. Arizona State University. Tempe, Arizona, Mar. 30, 2018.
- Outreach, “Launching the Global Locust Initiative”. **Knowledge Enterprise Development Showcase, at the Opening of ASU’s Ambassador Barbara Barrett & Justice Sandra Day O’Connor Washington Center**. Washington, DC, Mar. 13, 2018.
- Panel Presentation (Online), “Entomology and INTAD Grad Perspectives.” **INTAD Global Gallery**. Pennsylvania State University, University Park, PA, Feb. 24, 2018.
- Co-Presenter, “Launching the Global Locust Initiative: An organization to link researchers, governmental and non-governmental agencies, and farming communities to address and mitigate the effects of locust plagues.” **Entomological Society of America**, Denver, Colorado, Nov. 6, 2017.
- Co-Presenter, “Global Locust Initiative.” **Taller Internacional de Manejo de la Langosta Sudamericana**. National Service of Agri-Food Health and Quality (SENASA), Córdoba, Argentina, Oct. 31-Nov. 3, 2017.
- Panel Presentation, “Career Opportunities in International Research.” **Locusts and Sustainability Lab**. Arizona State University, Tempe, AZ, Sept. 28, 2017.
- Presentation, “Global Locust Initiative.” **ASU’s Big Ideas: Potential Applicants to the National Science Foundation’s Science and Technology Center’s Grants**. Arizona State University, Tempe, AZ, Aug. 9, 2017.
- Panel Presentation (Online), “Career Opportunities in International Agriculture and Development.” **International Agriculture and Development Seminar**. Pennsylvania State University, University Park, PA, Apr. 21, 2017.
- Panel Presentation, “Career Opportunities in the Agricultural Sciences.” **Agriculture Education Orientation**. Pennsylvania State University, University Park, PA, Nov. 4, 2015.
- Presentation, “International Opportunities in Agriculture.” **Pennsylvania’s Governor’s School for Agricultural Sciences**. Pennsylvania State University, University Park, PA, July 27, 2015.
- Presentation, “Penn State’s International Ag Dual-Title Program: Building Interdisciplinary Networks

and Training Professionals of the Future.” **Association for International Agriculture and Rural Development Annual Meeting**. Washington, D.C., June 2, 2015.

- Presentation, “Global Opportunities in the Health Sciences.” **Biomedical Sciences Undergraduate Club Career and Research Conference**. Pennsylvania State University, University Park, PA, Mar. 29, 2014.
- Panel Presentation, “Experiences in International Research.” **International Agriculture and Development Seminar**. Pennsylvania State University, University Park, PA, Feb. 3, 2014.
- Presentation, “Student Perspectives on INTAD Program.” **INTAD Faculty Mini-Retreat**. Pennsylvania State University, University Park, PA, Jan. 24, 2014.
- Panel Presentation, “Student Opportunities in International Research.” **International Agriculture and Development Seminar**. Pennsylvania State University, University Park, PA, Feb. 4, 2013.
- Panel Presentation, “Experiences at the Association for International Agriculture and Rural Development Future Leaders Forum.” **College of Agricultural Sciences International Speaker Series**. Pennsylvania State University, University Park, PA, Nov. 28, 2012.

#### **Poster Presentations:**

- “Cover crop species and termination timing influence Carabidae assemblage in 3-year transition to organic.” **Entomological Society of America Annual Meeting**. Minneapolis, MN, Nov. 17, 2015.
- “Cover cropping augments Carabidae assemblage in 3-year wheat-corn-soybean rotation.” **4th Annual Sustainable Agriculture Systems Research Symposium**. Pennsylvania State University, University Park, PA, Mar. 27, 2013.
- “Conservation and pasture value of remnant trees in a tropical agroecosystem.” **Ecological Society of America Annual Meeting**. Sacramento, CA, Aug. 15, 2014.
- “Soil surface arthropods in an organic, reduced tillage forage system: Two Years of Data.” **3rd Annual Sustainable Agriculture Systems Research Symposium**. Pennsylvania State University, University Park, PA, Mar. 22, 2013.

#### **SELECT TEACHING:**

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*Arizona State University, Tempe, Arizona*

- **AECL 1000: Agroecology** (University of Wyoming online)
  - Guest Lecturer, “Smallholder grain storage in Mexico.” Spring 2018, *30 students*
- **SOS 117: Food System Sustainability**
  - Guest Lecturer, “Soil conservation, biodiversity and pest management.”
    - Fall 2018, *18 students*
    - Spring 2018, *25 students*
    - Fall 2017, *20 students*
- **SOS 327: Sustainable Food and Farms**
  - Guest Lecturer, “Soil biodiversity and pest management.” Fall 2017, *35 students*
  - Guest Lecturer, “Smallholder postharvest losses in Mexico.” Fall 2017, *35 students*
- **SOS 494: Sustainability and Locusts Lab**
  - Guest Lecturer, “International collaboration in scientific research.” Fall 2017, *7 students*
  - Guest Lecturer, “Engaging stakeholders: a case study in postharvest management in Mexico.” Fall, 2018, *5 students*
- **SOS 498: Sustainable Neighborhoods for Happiness**
  - Mentor, guiding a group of 4 students through an urban landscaping project, Fall 2018

*CIMMYT, Texcoco de Mora, Mexico*

- **Advanced Course for Researchers in Agronomy** (in Spanish). Summer 2016, *8 participants*
  - “Introduction to Postharvest and CIMMYT’s postharvest activities and results”
  - “Pests and diseases of stored grains”
  - “Conventional management and alternative technologies in grain storage”
  - “Importance of a participatory diagnostic in the postharvest system”

*Pennsylvania State University, University Park, Pennsylvania*

- **INTAG 100: Introduction to International Agriculture**
  - Guest Lecturer “Soil and Water Issues in International Agriculture.”, Fall 2015, *40 students*
  - Teaching Assistant and Lecturer, “Natural Resource Issues in International Agriculture.” Spring 2014, *40 students*
- **INTAD 820: Graduate Seminar in International Agriculture and Development**
  - Teaching Assistant, with a 1-week course trip to Managua, Nicaragua. Spring 2015, *7 students*
- **INTAG 490: Senior Seminar in International Agriculture**
  - Guest Lecturer, “Mexico as a case study in International Development.”, Spring 2015, *27 students*
  - Guest Lecturer, “Mexico as a case study in International Development.” Spring 2014, *23 students*
- **ENT 316: Field Crops Entomology**
  - Guest Lecturer, “Corn Pests.” Spring 2014, *20 students*
  - Instructor, Spring 2013, *22 students*
  - Instructor, Spring 2012, *20 students*
- **ENT 530: Tropical Entomology Graduate Seminar,**
  - Instructor. Spring 2014, *13 students*
- **ENT 310: Introduction to Entomology Laboratory**
  - Instructor. Spring 2013, *20 students*

*Institute for Tropical Ecology and Conservation, Bocas del Toro, Panama*

- Teaching Assistant, **Tropical Rainforest Ecology**, Dec. 2012, *2 students*.
  - 3-week field course on-site in Panama

#### **GRANTS:**

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| 2018-19 | <b>USAID Office of Foreign Disaster Assistance Solicited Proposal, \$539,708</b><br>Lead the proposal development and submittal process<br>Project Title: “ <i>Monitoring and Soil Amendments for Locust Management: A Pilot Project in the Kaffrine Region of Senegal</i> ”   |
| 2012-14 | <b>Borlaug Fellowship for Global Food Security, \$14,795</b><br>U.S. Agency for International Development and Purdue Center for Global Food Security<br>Project Title: “ <i>Conservation Agriculture and Soil-Dwelling Arthropods: Implications for Subsistence Agriculture</i> ”<br>Included 6 months in residence at the International Maize and Wheat Improvement Center (CIMMYT) in central Mexico to conduct research |
| 2012-14 | <b>Graduate Student Grant, \$14,234</b><br>Northeast Sustainable Agriculture Research and Education Program<br>Project Title: “ <i>Predator-Prey Interactions in a high residue, reduced tillage agroecosystem</i> ”   |
| 2010    | <b>Community Engagement Grant, \$800</b><br>Washington State University Extension, Clark County Master Gardeners<br>Project Title: “ <i>Growing Groceries Mentor Program – building community through food gardens</i> ”   |
| 2008    | <b>Graduate Student Grant, \$2,000</b><br>College of Social Sciences Foundation, San José State University<br>Project Title: “ <i>Conservation and Pasture Value of Remnant Trees in a Tropical Agroecosystem</i> ”<br>Included 6 months in residence in central Nicaragua to conduct research   |

### **RECENT AWARDS:**

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2018	Nominated, Rookie of the Year, Arizona State University's Office of Knowledge Enterprise Development
2015	First Place Presentation, Student Competition for the President's Prize, Entomological Society of America Annual Meeting
2015	Yendol Travel Award, Department of Entomology, Pennsylvania State University, \$494
2015	World Food Prize Travel Award, Office of International Programs, College of Agricultural Sciences, Pennsylvania State University, \$1,000
2014	Graduate Student Travel Award, College of Agricultural Sciences, Pennsylvania State University, \$300
2014	Graduate Student Travel Grant, USDA, Agriculture and Food Research Initiative, \$500
2014	Ralph O. Mumma Graduate Student Award, Department of Entomology, Pennsylvania State University, \$800
2012	Future Leaders Forum Travel Award, Association for International Agriculture and Rural Development

### **RECENT SERVICE:**

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#### **Professional Societies**

Entomological Society of America. Member, 2013 – Pres.

- Volunteer, ESA Booth, USA Science and Engineering Festival, Washington, D.C., Apr. 16, 2014
- Volunteer, 2013 annual meeting

Association for International Agriculture and Rural Development. Member, 2012 – Pres.

- Co-organizer, "Organizational Innovation in AIARD" Session, 2015 annual meeting
- Volunteer, 2014 annual meeting

#### **Pennsylvania State University**

Coordinator, "Friends and Foes of Agriculture" exhibit at the Great Insect Fair at Agricultural Progress Days, held at Pennsylvania State University, Aug. 20, 2015

Judge, Extemporaneous Public Speaking, State FFA Competition, held at Pennsylvania State University, June 16, 2015

Vice President, Entomology Graduate Student Association, Pennsylvania State University, 2014-2015

Treasurer, International Agriculture and Development Student Club, Pennsylvania State University, 2013-2015

Member, Department of Entomology Social Committee, Pennsylvania State University, 2013-2015

Member, Department of Entomology Instruction Committee, Pennsylvania State University, 2014-2015

Volunteer, Department of Entomology Great Insect Fair, Pennsylvania State University, 2012-2015

English as a Second Language Conversation Partner, Office of Global Programs, Pennsylvania State University, 2012-2013

Volunteer Facilitator, Global Knowledge Initiative Workshop, Fulbright Global Food Security Seminar, Pennsylvania State University, 2012

### **LANGUAGES:**

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English, Native Speaker

Spanish, Professionally Fluent