

## 2019 Curriculum Vitae

**NAME:** Katja Poveda  
**COLLEGE:** Agriculture and Life Sciences  
**DEPARTMENT/UNIT:** Entomology  
**TITLE:** Associate Professor  
**CAMPUS ADDRESS:** 4126 Comstock Hall  
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### BACKGROUND

#### Education

2005 Ph.D., Agroecology  
(summa cum laude) Institute of Agroecology, Georg-August University, Göttingen,  
Germany (Advisor: Teja Tscharntke)

2000 B.A./B.S., Biology Universidad Nacional de Colombia, Bogotá, Colombia  
(graduated with honors)

### PROFESSIONAL EXPERIENCE

Year	Experience
2018-present	Associate Professor (60% research, 40% teaching), Department of Entomology, Cornell University
2012-2018	Assistant Professor (60% research, 40% teaching), Department of Entomology, Cornell University
2011	Research Associate, Entomology Department, Cornell University
2006 – 2010	Postdoctoral Researcher: <b>Diversification of Andean crop systems at local and landscape scales: Enhancing biological control of potato pests.</b> A collaborative project between Georg-August University, Göttingen, Germany, Universidad Nacional de Colombia and Cornell University.
2009 – 2012	Co-PI: <b>Diversification of <i>Physalis peruviana</i> crops to increase production through the control of noctuid pests and enhanced pollination</b> (PI: Augusto Ramirez, Universidad Nacional de Colombia).
2005	Postdoctoral Research: “ <b>Volatiles mediating interactions between root herbivores and pollinators</b> ” at the Institute of Forest Zoology, Göttingen/Germany (mentor: Stefan Schuetz)
2001 – 2005	Ph.D. research: <b>Multitrophic plant insect interactions in dependence of below ground processes</b> (Advisor: Teja Tscharntke).

1999 – 2000 Undergraduate thesis: **Habitat use of two groups of white footed tamarins (*Saguinus leucopus*) in Mariquita, Colombia.** (Advisor: Pedro Sanchez)  
 08-12/ 2000 Biologist at the Environmental Authority (Corporación Autónoma Regional de Cundinamarca) in Villeta, Colombia.

**Sabbaticals and study leaves**

Universidad Nacional de Colombia, Bogota, Colombia. July 2018-July 2019.

**HONORS & AWARDS**

Cornell CALS Young Faculty Teaching Excellence Award. April 2017.

Fellowship from the Studienstiftung des Deutschen Volkes (German National Academic Foundation), 2006

Galante Family Conservation Scholarship (International Primatological Society), July 2001.

**ACADEMIC RESPONSIBILITIES**

**Administrative responsibilities**

Seminar organizer, Entomology Department: 2013-2018

**Research responsibilities**

Current Postdoctoral Associates

Dr. Heather Grab (May 2017-present)

Past Postdoctoral Associates

Dr. Susan Whitehead (February 2014-2016)  
 Dr. Christopher Stieha (June 2012-May 2014)  
 Dr. Etzel Garrido (March 2014-July 2016)

Other Current Research Professionals Supervised

Other Past Research Professionals Supervised

Olivia Mc Candless, Technician (June-October 2017)  
 Ethan Bass, Technician (September 2016- April 2017)  
 Lindsay Fennell, Technician (September 2016- February 2017)  
 Anna Wilson, Technician (August - December 2015, October 2016-present)  
 Sara Cilles, Technician (December 2013-May 2014)  
 Trey Ramsey, Technician (August - December 2015)

**Other Relevant Research Activities, Accomplishments, etc.**

Funding (since at Cornell)

**TEACHING AND ADVISING RESPONSIBILITIES**

PI's, Co-PI	Total \$ award Supporting agency	Start-end dates	Title of project
*denotes grants submitted/received by lab members (students and postdocs) performing 100% of their work in the lab			

Katja Poveda	\$498,347 NIFA/USDA AFRI Foundational Program (Submitted, pending)	01/01/19- 12/31/21	Landscape-mediated changes in functional traits of insect populations and their consequences for ecosystem services
Mattias Jonsson, Charles Midega, Yann Clough, Shem Kuyah & Katja Poveda	\$ 646,259.03 (\$98.500 to my lab) (SEK\$ 5861305) Swedish research council	01/01/2019- 12/31/21	Toward sustainable maize production in East Africa: Cropping system resilience under climate change
Rachel Bezner Kerr et al	€ 1,150,000 Belmont Forum/BiodivERsA	01/01/2019- 12/31/21	FARMS 4 Biodiversity: Farmer-led Agroecological Research in Malawi using Scenarios for Biodiversity
Katja Poveda,	\$ 60,000 USDA-NIFA: Federal Capacity Funds-Multistate	10/18-09/20	Harnessing Chemical Ecology to Address Agricultural Pest and Pollinator Priorities
Diana Obregon*, Katja Poveda	\$4,000	7/01/2018- 6/30/2019	Stingless bees for honey production and crop pollination in Casanare, Colombia
Heather Grab*, Katja Poveda	\$165,000 USDA-NIFA Postdoctoral Fellowship	4/2018- 3/2020	Causes and Consequences of Functional Trait Variations in Crop Pollinators
Tim Luttermoser*, Katja Poveda	\$ 10,000 Toward Sustainability Foundation Grant (Cornell)	02/2018- 01/2019	Sustainable Agriculture, Biological Control, and Invasive Species: Assessing the Role of Intercropping and Natural Enemies in Controlling a New Invasive Maize Pest in Kenya
Katja Poveda, Guiomar Nates, Rodulfo Ospina	\$ 10,000 Seed grant Mario Einaudi Center for International Studies (Cornell)	12/2017- 12/2018	Effect of landscape simplification on pollinators in the tropical Andes.
<b>PI's, Co-PI</b>	<b>Total \$ award Supporting agency</b>	<b>Start-end dates</b>	<b>Title of project</b>
*denotes grants submitted/received by lab members (students and postdocs) performing 100% of their work in the lab			
Katja Poveda, Bryan Danforth	\$ 90,000 USDA-NIFA: Federal Capacity Funds	10/17-09/20	Assessment of costs and benefits of managed crop pollinators under varying landscape contexts

Katja Poveda, Andre Kessler, Laurie Drinkwater, Magdeline Laba	\$125,356 Atkinson Center for a Sustainable Future (Cornell) 75% investment in writing of proposal and 75% of the work will be performed in my lab	03/01/2017- 02/28/2019	Sustainable increase of maize production through ecological intensification
Susan Whitehead*, Katja Poveda	\$150,000 USDA-NIFA Postdoctoral Fellowship	12/15/2015- 12/14/2017	Chemical mechanisms of insect resistance in apple fruits
Rachele Weintraub*, Katja Poveda	\$1,000 USDA-NIFA: Federal Capacity Grants (undergraduate research support)	11/2015- 09/2016	Tolerance response of <i>S. tuberosum</i> to herbivory in varying nutrient environments
Mary Centrella*, Katja Poveda, Bryan Danforth	\$112,000 NSF Graduate Research Fellowship 50% of the work performed in my lab	08/15-07/18	The effects of diet and agro-chemicals on mason bee fitness across landscapes
Katja Poveda	\$90,000 USDA-NIFA: Federal Capacity Grants	10/14-9/17	Augmentative release of spined soldier bugs to reduce pest pressure and increase yield in NYS cabbage
Ricardo Perez*, Katja Poveda	\$14,993 North East Sustainable Agriculture Research and Education Program Graduate Student Grant	05/01/2015- 04/30/2016	Management of the lepidopteran pest complex in cabbage: augmentative biological control strategies in different landscape context
Bryan Danforth, Katja Poveda	\$ 54,686 New York State Apple Research and Development Program 25% of the work is being performed in my lab	04/01/14 - 03/31/15	Mason bees as pesticide biomonitors in apple orchard habitats
<b>PI's, Co-PI</b>	<b>Total \$ award Supporting agency</b>	<b>Start-end dates</b>	<b>Title of project</b>
*denotes grants submitted/received by lab members (students and postdocs) performing 100% of their work in the lab			
Ricardo Perez*, Katja Poveda	\$9,000 Towards Sustainability Foundation (Cornell)	03/2014 - 02/2015	Is augmentative biological control useful in complex landscapes?

Georg Jander Katja Poveda	\$498,312 USDA (\$264,572 to my lab)	1/1/14 to 12/31/16	Increasing potato yield through genetic and biochemical analysis of compensatory growth responses during tuber moth infestation
Katja Poveda, William Fry	\$120,000 USDA-NIFA: Federal Capacity Grants 80% investment in writing of proposal and 100% of the work being performed in my lab	9/1/13 - 8/31/17	Collaborative potato breeding and variety development activities to enhance farm sustainability in the Eastern US
Katja Poveda, Christopher Stieha*	\$ 30,089 gift from Iowa State University (Karen Abbott program)	2/1/13 - 6/30/13	Models of plant-herbivore dynamics with plant tolerance
Rachel Au*, Katja Poveda	\$1,000 CALs Charitable Trust (undergraduate research support, Cornell) \$300 from the Ann S. and Robert R. Morley Student Research Fund (Cornell)	10/13 - 09/14	Tolerance responses of potato to Colorado Potato Beetle
Ricardo Perez*, Katja Poveda	\$9,000 Toward Sustainability Foundation Grant (Cornell)	04/14 - 03/15	Is augmentative biological control useful in complex landscapes?
Heather Connelly, Greg Loeb, Katja Poveda, Bryan Danforth	\$9,000 Towards Sustainability Foundation Grant (Cornell) 30% of the work performed in my lab	03/2013 - 03/2014	Influence of on farm habitat diversity and landscape complexity on biological control and pollination in strawberry
Heather Connelly, Greg Loeb, Katja Poveda, Bryan Danforth	\$1,561 Griswold Fellowship (Cornell) 30% of the work performed in my lab	03/2013 - 02/2014	Influence of landscape complexity on biological control of tarnished plant bug in strawberry
<b>PI's, Co-PI</b>	<b>Total \$ award Supporting agency</b>	<b>Start-end dates</b>	<b>Title of project</b>
*denotes grants submitted/received by lab members (students and postdocs) performing 100% of their work in the lab			
Greg Loeb, Heather Connelly, Katja Poveda	\$14,534 North East Sustainable Agriculture Research and Education Program Graduate Student Grant 30% of the work performed in my lab	11/2012 - 10/2015	Use of native perennial wildflowers and alfalfa trap crops to increase pollination and biological control in strawberry

Jennifer Thaler, Miguel Gomez, Georg Jander, Katja Poveda	\$107,000 Atkinson Center for a Sustainable Future (Cornell) 40% of the work performed in my lab	09/2011 - 08/2013	Sustainable pest management and yield increase strategies through ecological, genetic, and economic analysis
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#### Funding (before being at Cornell)

PI's	Total \$ award Supporting agency	Start-end dates	Title of project
*denotes grants submitted/received by student I mentored			
Alexander Chauta*	\$ 10,000 Colciencias (Colombia)	01/2012-12/2012	Biología reproductiva e importancia de los polinizadores asociados a dos especies de plantas de bosque Alto Andino
Laura Abril*	\$ 10,000 Colciencias (Colombia)	01/2011-12/2011	Tolerance and resistance response of different goldenberry accessions to the herbivory of <i>Copitarsia decolora</i>
Maria Fernanda Diaz*	\$ 10,000 Colciencias (Colombia)	01/2011-12/2011	Effect of the presence of flowering plants to the parasitism and predation rates of noctuid pests in goldenberry fields
Augusto Ramirez, Katja Poveda	\$ 98,000 Colciencias (Colombia)	01/2009-08/2011	Diversification of <i>Physalis peruviana</i> crops to increase production through the control of noctuid pests and enhanced pollination
Carlos E. Sarmiento, Katja Poveda	\$ 10,000 Banco de la Republica (Colombia)	12/2010-11/2011	Preference and performance of different noctuid pests in goldenberry crop diversification practices
PI's, Co-PI	Total \$ award Supporting agency	Start-end dates	Title of project
*denotes grants submitted/received by lab members (students and postdocs) performing 100% of their work in the lab			
Katja Poveda	€ 93,148 (\$ 136,450) DFG (German Science Foundation)	08/2008-12/2010	Diversification of Andean crop systems at local and landscape scales: Enhancing biological control of potato pests (extension from the previous grant)
Katja Poveda	€ 97,389 (\$ 142,670) DFG (German Science Foundation)	05/2006- 04/2008	Diversification of Andean crop systems at local and landscape scales: Enhancing biological control of potato pests

Katja Poveda	€ 22,080 (\$ 32,350) Studienstiftung des Deutschen Volkes (German National Academic Foundation)	2003-2005	Multitrophic plant-insect interactions in dependence of belowground processes
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**Administrative Leadership (positions related to teaching/education/advising)**

None

**Courses Taught**

ENTOM 3030 Applied Statistics: Biological Experiments in Practice (Spring 2013, 2015, 2017, 2018), 3 credits

HORT/ENTOM 4730 Ecology of Agricultural Systems  
(Fall 2013, 2014, 2015, 2016, 2017), 3 credits

BIOEE/BIONB/ENTOM 7640 Plant-Insect Interactions Seminar (every semester since Fall 2012), 1 credit

**Educational Innovations Developed Including; Web-Based Materials; New Courses Developed, etc.**

New course developed:

ENTOM 3030 Applied Statistics: Biological Experiments in Practice

**Current Undergraduate Students Mentored in Independent Research**

Leeah Richardson, Grace Pederson, Cheyenne Markowski

**Current Student Organizations for Which You Served as Faculty Advisor**

PorColombia Cornell

**Current Undergraduate Advisees**

Brian Liang, Entomology, 2021

**Current Teaching Assistants (graduate & undergraduate) and Other Teaching Support Professionals Supervised (list names)**

Danielle Rutkowski, Spring 2018

Kalenga Banda, Fall 2017

Zoe Getman-Pickering, Spring 2017

Adam Karl, Horticulture, Fall 2016

Heather Connelly, Entomology, Spring 2015

Emily Reiss, Horticulture, Fall 2013, 2014, 2015

Mia Park, Entomology, Spring 2013

**Other Relevant Teaching and Advising Activities, Accomplishments, etc.**

### Field courses

Invited faculty to the “Undergraduate semester abroad program: tropical biology on a changing planet”. Organization for Tropical Studies and Duke University. (March 2014, La Selva Biological Station, Costa Rica).

Coordinator of the Organization for Tropical Studies Field Course “Plant-Animal Interactions in the Tropics” (January 2010, La Selva Biological Station, Costa Rica).

Co-coordinator of the Organization for Tropical Studies Field Course “Tropical Biology: An Ecological Approach”, OTS, Costa Rica. Spring 2008

Co-coordinator of the Organization for Tropical Studies Field Course “Tropical Biology: An Ecological Approach”, OTS, Costa Rica. Spring 2006

### Guest lectures

NTRES 3301 - Sustainability Science. Fall 2017. 1 lecture: Sustainable pest management strategies.

PLSCS 1900 - Sustainable Agriculture: Food, Farming, and the Future, Fall 2015, 2016 & 2017. 1 lecture: Diversity at local and landscape scales to improve ecosystem services.

HORT/BIOEE 4730, Ecology of Agricultural Systems, Fall 2010 & 2012. 1 lecture and 1 lab: Plant diversity and pest control

ENTOM 4550, Insect Ecology, Fall 2010. 1 lecture: Diversity in Agroecosystems

OTS 07-1, January 2007 “Tropical Biology: An Ecological Approach”. Invited faculty to lecture and lead group and independent projects for 2 weeks. OTS, Costa Rica.

“Biología de Insectos” (Biology of Insects). 1 lecture: Biodiversity in Agroecosystems. Universidad Nacional de Colombia-Sede Bogotá.

### **Undergraduate project students**

(\*indicates students were co-authors on published papers)

(†indicates students performed/are performing a senior thesis at Cornell University)

Arabelle Osicky†

Nathaniel Flicker †

Patrick O’Brian†

Annika Salzberg†

Anthony Polyakov

Ali Bergman

Rachel Au †\*

Alena Hutchinson\*

Miles Renauld\*

Rachele Weintraub†

Alexander Chautá\* (Universidad Nacional de Colombia, July 2010)

### **Graduate field memberships**

Entomology

### **Graduate majors**

Current (names and expected date and field of degree including degree. For example, Ph.D., M.S., MPS, MAT, etc.)



Cassandra Vogel, Co-advised student with Prof. Dr. Ingolf Steffan-Dewenter, Department of Animal Ecology and Tropical Biology, University of Wuerzburg, Germany. Ph.D., anticipated in 2022

Diana Obregon, Entomology, Ph.D., anticipated in 2022

Tim Luttermoser, Entomology, Ph.D., anticipated in 2021

Manuel Ricardo Perez, Entomology, Ph.D., anticipated in 2019

Mary Centrella, Entomology, Ph.D., anticipated in 2019

#### Total Completed (names and dates)

Alexander Chautá. Biology, M.S. Universidad Nacional de Colombia. Physiological and ecological costs of leaf herbivory on pollination. \* November 2014

Maria Fernanda Diaz. Agronomy (Entomology), M.S. Universidad Nacional de Colombia. Diversification of *Physalis peruviana* crops through flowering plants to increase *Trichogramma* spp. parasitism of noctuid moths.\* May 2011

Eliana Martinez. Biology, M.S. Universidad Nacional de Colombia. Effect of landscape structure on herbivores and their natural enemies in potato crops in Cundinamarca.\* Merithourius thesis July 2008

Maria Isabel Gómez Jimenez. Agronomy (Entomology), M.S. Universidad Nacional de Colombia (Bogotá). Synergistic effects of repellents and attractants for potato tuber moth control.\* Merithourius thesis July 2008

\* translated from original Spanish title

#### **Graduate minors**

##### Current (names and expected date and field of degree)

Anna Madeline Lello-Smith, PhD, 2022, Natural Resources, Major Advisor: Amanda Rodewald

Katherine Urban-Mead, PhD, 2022, Entomology, Major Advisor: Bryan Danforth

Stephanie Enloe, PhD, 2021, Development Sociology, Major Advisor: Rachel Bezner-Kerr

Laura Figueroa, PhD, 2020, Entomology, Major Advisor: Scott McArt

Talya Shragai, PhD, 2020, Entomology, Major Advisor: Laura Harrington

Lauren D. Snyder, PhD, 2017, EEB, Major Advisor: Allison Power

##### Total Completed (names and dates)

Emily R. Reiss, PhD, 2017, PLSCS, Major Advisor: Laurie Drinkwater

Erin M. Kelley, M.S., 2013, Agricultural Economics, Major Advisor: Miguel Gomez

Susan B. Clafin, PhD, 2016, Entomology, Major Advisor: Jennifer Thaler & Alison Power

Heather L. Connelly, PhD, 2017, Entomology, Major Advisor: Greg Loeb

#### **Sabbatical visitors**

None

## **OTHER CURRENT PROFESSIONAL ACTIVITIES**

#### **Professional societies**

Entomological Society of America (2012-present)  
Ecological Society of America (2004-present)

**Professional honoraries**

None

**Editorial boards**

Basic and Applied Ecology, January 2019-present

**Ad hoc reviewer**

2018: Ecology and Evolution, Proceedings of the Royal Society B, Biological Control

2017: Ecology Letter, Functional Ecology, Journal of Applied Ecology, Basic and Applied Ecology (2), Oecologia, Journal of Agricultural Sciences

2016: Journal of Applied Ecology (2), Basic and Applied Ecology (1), Chemoecology (1), Agriculture, Ecosystems and Environment (1), PLoS ONE (1), Agriculture, Ecosystems and Environment (1), USDA-AFRI Federal Capacity Grants proposals.

2015: PNAS (1), Journal of Applied Ecology (2), Oecologia (2), External reviewer for PhD thesis at the Universidad Nacional de Colombia (2), TSF Grant proposal (Cornell University), USDA-NIFA grant proposal, USDA-AFRI Federal Capacity Grants proposals.

2014: Biocontrol Science and Technology (1), Revista Colombiana de Entomologia (1), NSF grant (1)

2013: Journal of Applied Ecology (2), Frontiers in Plant-Microbe Interaction (1), Basic and Applied Ecology (1), grant for the DFG (German Science Foundation) (1), Ecological Applications (1)

2012: Ecology (1), Journal of Applied Entomology (1), Journal of Animal Ecology (2), Grass and Forage Science (1)

Prior to 2012: grants for NSF and Colciencias (Colombia). Oikos, Ecological Applications, Ecological Entomology, Functional Ecology, Basic and Applied Ecology, Revista Colombiana de Entomologia, Journal of Applied Ecology, New Phytologist

**Committee assignments**

International/National (including federal government agencies):

None

State/Local (including state and local government agencies):

None

Commodity and other Stakeholder:

None

University:

None

College:

TNC Nature Net postdoc application review committee (2014)

Department:

2014-2018: Seminar series organizer

2013-2014: Seminar series co-organizer

2012 - 2015: Graduate Students Recruitment Committee

## **OTHER CURRENT PROFESSIONAL CONTRIBUTIONS**

### **Symposia organized**

P-IE Section Symposium: Igniting Next Generation Science on Habitat and Landscape Management to Enhance Pest Suppression and Pollination. Organized by Doug Landis, Claudio Gratton, Katja Poveda, Felix Bianchi & Mary Gardiner. The Annual Meeting of the Entomological Society of America, Denver, CO, USA. November 7, 2017.

Symposium: Crop Domestication Effects on Plant-Insect Interactions: Patterns, Mechanisms, and Future Directions. Organized by Katja Poveda and Susan Whitehead. International Conference of Entomology. Orlando, FL, USA. September 30, 2016

P-IE Section Symposium: Landscape Simplification: Effects on Arthropod Mediated Ecosystem Services and Agricultural Production. Organized by Katja Poveda and Heather Connelly. The Annual Meeting of the Entomological Society of America, Minneapolis, MN, USA. November 18, 2015.

### **Invited presentations**

#### 2018

**K. Poveda, M. Centrella & H. Grab.** La simplificación del paisaje reduce la productividad de cultivos a través de cambios en la comunidad y los rasgos funcionales de los polinizadores. Cátedra Fulbright: “Gestión de sistemas agrícolas diversificados para la seguridad alimentaria”. Cali, Colombia. Invited talk.

**K. Poveda.** Landscape complexity affects arthropod-mediated ecosystem services. University of California – Davis, Department of Entomology and Nematology, April 4, 2018. Invited seminar.

**K. Poveda, M. Centrella & H. Grab.** La simplificación del paisaje reduce la productividad de cultivos a través de cambios en la comunidad y los rasgos funcionales de los polinizadores. V CONGRESO COLOMBIANO DE ZOOLOGIA, Bogotá D.C. Colombia. December 4, 2018. Invited plenary talk.

**K. Poveda.** Landscape complexity affects arthropod-mediated ecosystem services. University of Manitoba, Canada, Department of Entomology, March 6, 2018. Invited seminar.

**K. Poveda.** Landscape complexity effects on arthropod-mediated ecosystem services. Netherlands Annual Ecology Meeting, February 15, 2018. Invited plenary talk.

**K. Poveda.** Landscape constrains body size and ecosystem services. Wageningen University (Netherlands), Department of Entomology, February 15, 2018. Invited seminar.

#### 2017

**K. Poveda,** Grab, H., & R. Perez-Alvarez. Effects of landscape simplification on the effectiveness of local management practices in delivering ecosystem services mediated by arthropods. The Annual Meeting of the Entomological Society of America, Denver, CO, USA. November 7 2017.

**K. Poveda.** Landscape complexity effects on yield: the importance of arthropod mediated ecosystem services, Cornell University, Department of Entomology, March 13, 2017

**K. Poveda.** Introduction to the Session “Plant-Herbivore Interactions: An Evolutionary Perspective”. Gordon Research Conference, Ventura, CA, February 14, 2017

**K. Poveda.** Importance from natural habitats for yield: a landscape perspective. Michigan State University, Department of Natural Resources. January 20, 2017

#### 2016

**K. Poveda.** Landscape complexity, resource pulses and plant responses to herbivory: their effect on crop productivity. Washington State University, Department of Entomology. March 2, 2016

**Poveda K.,** E. Garrido, P. Kumar, E. Vargas & G. Jander. Transgenerational effects of tuber herbivory on potato compensation and resistance. 1st Joint Meeting ISCE/ALAEQ (International Society of Chemical Ecology/ Asociacion Latino Americana de Ecologia Quimica). Iguassu Falls, Brazil. July 6, 2016.

**Poveda K.,** H. Grab, & R. Perez Alvarez. Advantages from natural habitats for yield: how landscape simplification can affect yield through arthropod-mediated ecosystem services and disservices. Ecological Society of America Meeting. Ft. Lauderdale, FL, USA. August 11, 2016.

**K. Poveda.** Importance from natural/managed habitats for yield: a landscape perspective. Swedish University of Agricultural Sciences (SLU) Department of Ecology. September 9, 2016.

**K. Poveda.** Altitude and land-use change effects on yield in agricultural systems. International Conference of Entomology. Orlando, FL, USA. September 26, 2016

**K. Poveda.** Natural habitats improve yields: how landscape complexity can increase yield through arthropod-mediated ecosystem services. Cornell University. School of Integrative Plant Science, Soil and Crop Sciences Section. October 6, 2016.

**K. Poveda.** Natural habitats improve yields: how landscape complexity can increase yield through arthropod-mediated ecosystem services. Purdue University. Department of Entomology. October 20, 2016.

#### 2015

**K. Poveda.** Diversity at a local and landscape scale and its effects on herbivores, plant responses and productivity. Michigan State University. Department of Entomology. April 17, 2015.

**Poveda K. & M. Diaz.** Landscape effects on yield mediated through plant induced responses to herbivores. Annual Meeting of the Entomological Society of America, Minneapolis, MN, USA. November 18, 2015.

- Poveda K.**, E. Garrido, J. Thaler, M. Diaz & C. Nustez. Tradeoffs between plant tolerance and resistance to herbivory in different potato varieties. Annual Eastern Branch Meeting, Entomology Society of America, Rehoboth Beach, DE. March 16, 2015.
- K. Poveda.** Respuesta de las plantas a insectos para aumentar la productividad de cultivos. Special Seminar. CORPOICA, Mosquera, Colombia. June 23, 2015

#### 2014

- Poveda K.** & M. Diaz. Agricultural intensification and its effect on local management practices. Invited talk at a Program Symposium. Annual Meeting of the Entomological Society of America, Portland, OR. November, 2014
- K. Poveda.** Biodiversity in tropical agroecosystems and plant responses to herbivory: consequences for plant productivity. University of Massachusetts, Amherst, March 28, 2014

#### 2013

- Poveda K.** & M. Diaz. Compensatory plant responses to pest damage: a new path for more sustainable agriculture? Entomological Society of America, Eastern Branch meeting, Lancaster, PA. March 16-19, 2013
- K. Poveda.** Biodiversity in tropical agroecosystems: implications for natural pest control and productivity. University of Vermont. February 1, 2012
- K. Poveda.** Biodiversity in tropical agroecosystems: implications for natural pest control and productivity. Department of Horticulture, Cornell University. February 4, 2012
- K. Poveda.** Plant tolerance in different landscapes: consequences for plant productivity. Chemical Ecology and Coevolution Workshop. Cornell University, Ithaca, NY. September 8-11

#### 2012

- Poveda K.** & M.I. Gómez. Repellents, attractants and compensatory responses to reduce pest pressure and increase yield in Andean Potato Systems in the Symposium: Beyond Borders: Global Research in Pest Management, Annual Meeting of the Entomological Society of America, Knoxville, TN November 14, 2012
- K. Poveda.** Biodiversity in tropical agroecosystems: implications for natural pest control and productivity. UNAM, Mexico D.F. Mexico
- K. Poveda.** Biodiversity in tropical agroecosystems: implications for natural pest control and productivity. Entomology Department, Rutgers University, New Brunswick, NJ. October 26, 2012.
- K. Poveda.** Chemical ecology in Agroecosystems: The push-pull strategy for pest control as part of the course: Ecología química: curso corto. Universidad Nacional de Colombia. Bogota, Colombia June 25, 2012.

#### 2011 and prior

- K. Poveda.** Biodiversity in tropical agroecosystems: implications for natural pest control and production Department of Entomology, Cornell University, Ithaca, NY. August 16, 2011.
- K. Poveda.** Biodiversity in tropical agroecosystems: implications for natural pest control and production EEB, Cornell University, Ithaca, NY. October 4, 2010.
- K. Poveda.** Biodiversity in tropical agroecosystems: implications for natural pest control and production Department of Entomology, Cornell University, Geneva, NY. February 7, 2010.

- K. Poveda.** Plant responses to herbivory: its application in agricultural systems\* Meeting of the Colombian Entomological Society (SOCOLEN), Universidad Javeriana, Colombia. June 30, 2010.
- K. Poveda.** A Mutualistic Pest? Herbivory Increases Potato Yield, Agroecology, University of Göttingen, Germany. October 30, 2007.
- K. Poveda.** Plant-herbivore mutualism in potatoes: do we also benefit? University of Bayreuth, Department of Animal Ecology I, Population Ecology Group, Germany. October 17, 2007.
- K. Poveda.** August 17, 2005. Aboveground plant-animal interactions in dependence on belowground processes in the Department of Ecology and Evolutionary Biology, Cornell University, USA.
- K. Poveda.** Pflanze-Insekt-Interaktionen in Abhängigkeit von Zersettern, unter- und oberirdischen Herbivoren. Institute for Forest Zoology and Forest Conservation, Göttingen, Germany. November 28, 2003.
- K. Poveda.** Habitatnutzung von Weissfuss-Tamarinen, *Saguinus leucopus*, an zwei verschiedenen Standorten (Wald und Stadt) in Mariquita, Kolumbien. German Center for Primatology (DPZ), Göttingen. June 10, 2002.

### Conferences/workshops

NOTE: For each presentation listed below, the first person was the presenter. A single asterisk (\*) denotes that the presenter was a graduate student in my program, a double asterisk (\*\*) denotes that the presenter was a Post-doctoral Associate in my program and a (#) denotes an undergraduate that performed research in the lab.

2018

- #O. R. Guerrero Espinosa, D. Obregon, & **K. Poveda.** ECA1-Valoración del servicio de la polinización en cultivos de lulo (*Solanum quitoense*) en Chameza, Casanare. V CONGRESO COLOMBIANO DE ZOOLOGIA, Bogotá D.C. Colombia. December 4, 2018.
- \*D. Obregon, Olger R. Guerrero Espinosa & **K. Poveda.** ECA1-Efecto de la simplificación del paisaje sobre poblaciones de *Tetragonisca angustula*. V CONGRESO COLOMBIANO DE ZOOLOGIA, Bogotá D.C. Colombia. December 4, 2018.
- \*\*H. Grab, R. Chaplin-Kramer, D. Karp, E. Martin, M. E. O'Rourke, R. Perez-Alvarez, M. Centrella, T. Luttermoser & **K. Poveda.** A global quantitative synthesis of landscape effects on conservation biological control. 2018 ESA, ESC and ESBC joint Annual Meeting. Vancouver, BC, Canada. November 11-14, 2018. Invited Presentation for Member Symposium.
- \*M. Centrella, **K. Poveda**, B. N. Danforth, A. Fersch, N. Baert, B. D. Eitzer, M. van Dyke, K. Böröczky & S. McArt. Do solitary and social bees respond in the same way to stressors in agroecosystems? 2018 ESA, ESC and ESBC joint Annual Meeting. Vancouver, BC, Canada. November 11-14, 2018. Oral Presentation.

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\* Translated from the original Spanish title

\*T. Luttermoser, C. Midega, Z. Khan & **K. Poveda**. Ecologically intensified farms in East Africa maintain successful pest control over time 2018 ESA, ESC and ESBC joint Annual Meeting. Vancouver, BC, Canada. November 11-14, 2018. Oral Presentation.

\*\*Whitehead, S., E. Bass, A. Kessler & **K. Poveda**. Effects of phytochemical diversity on insect performance. Ecological Society of America Meeting. New Orleans, LA. August 5-10, 2018

## 2017

\*Centrella, M., B.N. Danforth, B.D. Eitzer, H. Grab, & **K. Poveda**. Fitness responses of wild bees (*Osmia cornifrons*) to their environment: The interactive effects of landscape complexity, pesticide exposure, and pollen diet diversity. The Annual Meeting of the Entomological Society of America, Denver, CO, USA. November 6, 2017. Invited Presentation for Member Symposium.

Grab, H., J. B.N. Danforth, **K. Poveda**, & G. Loeb. Managing farms and landscapes for both biological control and pollination services. The Annual Meeting of the Entomological Society of America, Denver, CO, USA. November 6, 2017. Invited Presentation for Member Symposium.

#Polyakov, A., A. Osicky, A. Grele. Z. Getman-Pickering J. Thaler and **K. Poveda**, Predation risk mediates induced chemical defenses in Colorado Potato Beetle larvae. The Annual Meeting of the Entomological Society of America, Denver, CO, USA. November 6, 2017. Contributed Undergraduate Poster.

\*Perez, R., A. Polyakov & **K. Poveda**. Delivery of pest control services is mediated by the functional composition of predator communities. The Annual Meeting of the Entomological Society of America, Denver, CO, USA. November 6, 2017. Contributed Presentation.

\*\*Whitehead, S., E. Bass, A. Kessler & **K. Poveda**. Effects of phytochemical diversity on insect performance. 54th Annual Meeting of the Association of Tropical Biology and Conservation. Merida, Mexico. Contributed Presentation. July 9-14, 2017

\*\*Stieha C., B. Lerch, **K. Poveda** & K. Abbott. Plant Compensatory Regrowth and Plant Resistance Effects on the Population Dynamics of Herbivores and Plants. Symposium speaker for Dynamical Models of Plant Response to Threats May 21-25, 2017, SIAM Conference on Applications of Dynamical Systems, Snowbird, Utah

## 2016

\*\*Whitehead, S., M. Turcotte & **K. Poveda**. Effects of crop domestication on herbivore defense: A meta-analysis. XXV International Congress of Entomology. Orlando, FL, USA. Invited Presentation. September 30, 2016

O'Rourke, M. & **K. Poveda**. Linking herbivore dispersal and population dynamics in complex landscapes. XXV International Congress of Entomology. Orlando, FL, USA. Invited Presentation. September 27, 2016

\*Perez, R., B. Nault & **K. Poveda**. Testing the intermediate landscape complexity hypothesis for augmentative biological control. XXV International Congress of Entomology. Orlando, FL, USA. Contributed Presentation. September 28, 2016

\*Centrella, M., **K. Poveda** & B.N. Danforth. Landscape effects on mason bee fitness mediated by diet diversity and pesticide exposure. XXV International Congress of Entomology. Orlando, FL, USA. Contributed Presentation. September 28, 2016

Grab, H., J. Brokaw, B.N. Danforth, J. Gibbs, A. Hutchinson, R. Isaacs, **K. Poveda**, M. Renauld & G. Loeb. Landscape simplification constrains adult body size in native bees. XXV International Congress of Entomology. Orlando, FL, USA. Contributed Presentation. September 29, 2016

## 2015

- \*Perez, R., B. Nault & **K. Poveda**. Effects of landscape composition on crop yield mediated by specialist herbivores. Annual meeting of the Entomological Society of America, Minneapolis, MN, USA. Contributed Presentation. November 16th 2015.
- Connelly H., **K. Poveda** & G. Loeb. Local and landscape scale drivers of ecosystem services: Pollination, biological control and yield. Annual meeting of the Entomological Society of America, Minneapolis, MN, USA. Invited Presentation. November 18, 2015.
- Connelly H., N. Amon , B.N. Danforth , **K. Poveda** & G.M. Loeb. Does landscape mediate wild bee health and phylogenetic diversity? Annual meeting of the Entomological Society of America, Minneapolis, MN, USA. Contributed Presentation. November 16, 2015.
- \*Centrella M., B.N. Danforth , **K. Poveda** , E. Blitzer & L. Russo. You are what you eat: The effects of pesticides and diet diversity on mason bees in apple. Annual meeting of the Entomological Society of America, Minneapolis, MN, USA. Invited Presentation. November 15, 2015.
- \*\*Whitehead S.R. & **K. Poveda**. Plant-herbivore interactions in domesticated crops: does selection for increased fruit size in apples affect chemical defense and herbivore performance? Annual meeting of the Ecological Society of America, Baltimore, MD, USA. Contributed Presentation. August 11, 2015
- \*\*Whitehead S.R. & **K. Poveda**. Effects of selection for increased fruit size on insect resistance in apples. Annual Eastern Branch Meeting, Entomology Society of America, Rehoboth Beach, DE. Invited Presentation. March 16, 2015.

## 2014

- \*\*Whitehead S. & **K. Poveda**. 2014. Crop yield and insect resistance: Effects of selection for increased fruit size on codling moth resistance in wild and domestic apples. Abstracts ESA (Entomology) meeting, Portland, OR. Contributed Presentation.
- \*Perez-Alvarez R., B.A. Nault & **K. Poveda**. 2014. Testing the intermediate landscape complexity hypothesis for augmentative biological control. Abstracts ESA (Entomology) meeting, Portland, OR. Contributed Presentation.
- \*\*Stieha C., S. Cilles, E. Garrido, W. Fry & **K. Poveda**. 2014. Trade-offs between Colorado potato beetle resistance and late blight resistance in commercial potato varieties Abstracts ESA (Entomology) meeting, Portland, OR. Contributed Presentation.
- Connelly H., E.J. Blitzer, B. N. Danforth, G.M. Loeb & **K. Poveda**. 2014. Spillover of pollinators between crops: Competition or facilitation? Abstracts ESA (Entomology) meeting, Portland, OR. Contributed Presentation.
- Huseth A., J.D. Petersen, **K. Poveda**, Z. Szendrei, B. A. Nault, G. G. Kennedy & R.L. Groves. 2014. Insecticide resistance in a specialist herbivore shows a hidden cost of agricultural intensification. Abstracts ESA (Entomology) meeting, Portland, OR. Invited Presentation at a Program Symposium.
- Kessler A., A. Uesugi, **K. Poveda** & R.H. Johnson. 2014. Plant induced responses to herbivory and their effects on insect population dynamics. Abstracts ESA (Entomology) meeting, Portland, OR. Invited Presentation.



## 2013

- \*\*Stieha C., K. Abbott & **K. Poveda**. 2013. Effects of plant defenses on herbivore population cycles. M2E2-Current challenges for mathematical modeling of cyclic populations Banff international research station, Canada. Contributed Presentation.
- Poveda K.**, & M.F. Diaz. 2013. Crop production in dependence of landscape complexity, herbivore density and plant tolerance. Abstracts ESA (Entomology) meeting, Austin, TX. Contributed Presentation.
- Gómez-Jiménez M., C. Sarmiento, M. Díaz, A. Chautá, A. Peraza, A. Ramírez & **K. Poveda**. 2013. Preference-performance in polyphagous *Copitarsia decolora* and *Peridroma saucia*: are mothers or larvae right? Abstracts ESA meeting, Austin, TX. Contributed Poster.
- \*Díaz Niño M. F., A. Ramírez, **K. Poveda**. 2013. Eficiencia de tres especies parasitoides e incremento en la diversidad floral en el cultivo de uchuva, sobre el control biológico de noctuidos plaga (Lepidoptera). Resúmenes 40° Congreso Socolen, Bogota, Colombia. Contributed Presentation.
- \*Gómez Jiménez M. I., M. F. Díaz Niño, A. Chautá, A. Peraza, A. Ramírez-Godoy, C. E. Sarmiento Monroy & **K. Poveda**. 2013. Probando la hipótesis preferencia-desempeño en las especies polífagas *Copitarsia decolora* y *Peridroma saucia* (Lepidoptera: Noctuidae): ¿Tienen las madres o las larvas la razón? Resúmenes 40° Congreso Socolen, Bogota, Colombia. Contributed Presentation.
- \*Peraza Arias A. R., M. I. Gómez Jiménez, A. Ramírez-Godoy, **K. Poveda**. 2013. Preferencia de hospedero y parámetros de desarrollo de *Copitarsia decolora* (Lepidoptera: Noctuidae) en plantas cultivadas Resúmenes 40° Congreso Socolen, Bogota, Colombia. Contributed Presentation.
- K. Poveda** & , M. F. Diaz. 2013. Landscape simplification and plant tolerance responses to herbivory affect the outcome of plant-herbivore interactions. Abstracts ESA (Ecology) meeting, Minneapolis , MN. Contributed Presentation.
- \*\*Stieha C., K.C. Abbott & **K. Poveda**. 2013. Plant responses to herbivores and their effects on pest outbreaks. Abstracts ESA (Ecology) meeting, Minneapolis, MN. Contributed Presentation.
- Connelly H., **K. Poveda** & G.M. Loeb. 2013. Influence of landscape simplification on pollination services to strawberry. Abstracts ESA (Entomology) meeting, Lancaster, PA. Contributed Presentation.

## 2012 and before

- Poveda K.** & M.I. Gomez-Jimenez. 2012. Repellents, attractants, and compensatory responses to reduce pest pressure and increase yield in Andean Potato Systems. Abstracts ESA (Entomology) meeting, Knoxville, TN. Contributed Presentation.
- Poveda K.**, M.I. Gomez-Jimenez, R. Halitschke, A. Kessler. 2011. Overcompensating plants: their expression of resistance traits and effects on herbivore preference & performance. Abstracts ESA (Ecology) Meeting. Austin, Texas. Contributed Presentation.
- Poveda K.**, E. Martinez, M. A. Bonilla & T. Tschardt. 2010. Landscape simplification and altitudinal variation affect biodiversity, herbivory, and Andean potato yield. Abstracts ESA (Ecology) Meeting, Pittsburg, PE. Contributed Presentation.

- \*Gómez M.I. & **K. Poveda**. 2010. Effect of the integrated use of repellent and attractive stimuli on *Tecia solanivora* in potato fields\*. Resúmenes XXXVII Congreso SOCOLEN in Bogota, Colombia. Contributed Presentation.
- \*Chautá A., A. Bonilla & **K. Poveda** 2010. Influence of different pollinators on the fruit quality of goldenberries (*Physalis peruviana*, Solanaceae)\*. Resúmenes XXXVII Congreso SOCOLEN in Bogota, Colombia. Contributed Poster.
- \*Díaz M.F., A. Ramírez-Godoy & **K. Poveda**. 2010. Efficacy of three egg parasitoid (Hymenoptera: Trichogrammatidae) for the management of noctuid pests\*. Resúmenes XXXVII Congreso SOCOLEN in Bogota, Colombia. Contributed Presentation.
- \*Martínez E., C. E. Sarmiento & **K. Poveda**. 2010. *Spodoptera frugiperda* adults and larvae host selection\*. Resúmenes XXXVII Congreso SOCOLEN in Bogota, Colombia. Contributed Presentation.
- Kessler A., **Poveda K.**, Sapp J., Reid E.M., Whitehead, S. Posto A., Royer A.N. 2009. Chemical mimicry allows parasitism of an ant-Acacia mutualism by a coreid bug (Mozena sp.: Coreidae). Abstracts ESA (Ecology) Meeting. Albuquerque. USA. Contributed Presentation.
- Poveda K.**, A. Kessler & M.I. Gómez. 2008. A mutualistic herbivore? Increased yield through herbivore specific cues. Abstracts ICE Meeting in Durban, South Africa. Contributed Presentation.
- Kessler A. & **K. Poveda**. 2008. The value of changing phenotypes: Herbivore population consequences of induced plant responses. Abstracts ICE Meeting in Durban, South Africa. Contributed Presentation.
- \*Gómez M.I., T. Tschardt & **K. Poveda**. 2008. Repellents and attractants as push-pull strategy for potato moth control. Abstracts ICE Meeting in Durban, South Africa. Contributed Poster.
- Poveda K.**, E. Martínez, M.A. Bonilla, T. Tschardt. 2008. Landscape-scale diversification of Andean crop systems: enhancing biological control of potato pests. Gómez M.I., T. Tschardt & K. Poveda. 2008. Abstracts ICE Meeting in Durban, South Africa. Contributed Poster.
- Poveda K.**, Nchimi N., Gomez-Jimenez M.I., Steffan-Dewenter I., S. Scheu & T. Tschardt. 2007. Belowground herbivory influences plant growth and plant-pollinator interactions. Abstracts Volume of the ESA(Ecology) /SER Joint Meeting in San José, California. Contributed Presentation.
- \*Gómez Jiménez M.I., C. Núñez, E. Torrado, T. Tschardt & **K. Poveda** 2007. Evaluación de una estrategia "push-pull" para el manejo de *Tecia solanivora* (Lepidoptera:Gelechiidae) en cultivos de papa. Resúmenes XXXIV Congreso SOCOLEN in Cartagena, Colombia. Contributed Presentation.
- Poveda K.**, I. Steffan-Dewenter, S. Scheu & T. Tschardt. 2007. Relaciones multitróficas entre plantas e insectos en dependencia de procesos ecológicos en el suelo. II Congreso de Botánica, Medellín Colombia. Actualidades biológicas 29(1):69. Contributed Poster.
- \*Gómez Jiménez M.I., **K. Poveda** & T. Tschardt. 2007. Evaluación del efecto de plantas repelentes sobre la oviposición de la polilla guatemalteca de la papa (*Tecia solanivora*) (Lepidoptera). II Congreso de Botánica, Medellín Colombia. Actualidades biológicas 29(1):303. Contributed Presentation.

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\* Translated from the original Spanish title

- Poveda K.** & T. Tschardtke. 2006 Diversification of Andean crop systems at local and landscape scales: enhancing biological control of potato pests. Abstracts of PAA/Solanaceae 2006: Genomics meets biodiversity in Madison, Wisconsin, USA (Poster)
- Kessler A. & **K. Poveda**. 2006. SOL-ANDINO: The genome project and its impact. Abstracts of PAA/Solanaceae 2006: Genomics meets biodiversity in Madison, Wisconsin, USA. Contributed Poster.
- Poveda K.**, I. Steffan-Dewenter, S. Scheu & T. Tschardtke. 2005. Effects of farming practice and soil organisms on aboveground plant-herbivore and plant-pathogen interactions. Abstracts ESA (Ecology) meeting in Montreal, Canada. Contributed Presentation.
- Poveda K.**, I. Steffan-Dewenter, S. Scheu & T. Tschardtke. 2005. Effects of belowground and aboveground organisms on plant floral traits and seed set. Abstracts XVII International Botanical Congress. www.ibc2005.ac.at. Contributed Presentation.
- Poveda K.**, I. Steffan-Dewenter, S. Scheu & T. Tschardtke. 2004. Floral attractiveness to pollinators and seed set in response to below- and aboveground plant-animal interactions. Verhandlungen der Gesellschaft für Ökologie Band 34. Contributed Presentation.
- Poveda K.**, I. Steffan-Dewenter, S. Scheu & T. Tschardtke. 2004. Above-ground plant-animal interactions in dependence of below-ground processes. Abstracts Volume of ESA (Ecology) Meeting in Portland, Oregon, USA. Contributed Presentation.
- Poveda K.**, I. Steffan-Dewenter, S. Scheu & T. Tschardtke. 2003. Effects of decomposers, below and above-ground herbivores on plant growth and herbivore-parasitoid interactions. Verhandlungen der Gesellschaft für Ökologie Band 33. Contributed Presentation.
- Poveda K.**, I. Steffan-Dewenter, S. Scheu & T. Tschardtke. 2003. The influence of root and leaf herbivores on plant growth, flower visitation and seed set. Kurzfassung und Programm der DgaaE. Pag.54. Contributed Poster.
- Poveda K.**, I. Steffan-Dewenter, S. Scheu & T. Tschardtke. 2002. Effects of below- and above-ground herbivores on plant growth, flower visitation and seed set. Verhandlungen der Gesellschaft für Ökologie Band 32. Contributed Poster.
- Poveda K.** 2001. Habitat use of *Saguinus leucopus*: comparison between an urbanized group and a forest-dwelling group in Mariquita, Colombia. In: Müller A.E. & W. Scheffrahn (Eds.). Abstracts of the 7th Congress of the German Primate Society. Contributed Poster.
- Poveda K.** & P. Sanchez. 2000. Areas de acción de dos grupos del tití de pies blancos (*Saguinus leucopus*) que viven en hábitats diferentes en Mariquita, Colombia. pag. 71, en: Muñoz de Hoyos, P. & J. Aguirre C. (eds). Libro de Resúmenes del 1er Congreso Colombiano de Zoología - Año 2000, Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Sede Santafé de Bogotá. Contributed Poster.

#### Workshops/other university services

None

#### Working group

Part of the SESYNC working group “Evidence and Decision-Support Tools for Controlling Agricultural Pests with Conservation Interventions” First meeting in Annapolis, MA, Sep30-Oct 2, 2014. Since then we have met 3 more times and the first product of the collaboration is in revision in Biological Conservation.

### Meetings organized

None

### **Research and extension grant review panels**

None

### **Consulting**

None

### **Resource for media (i.e., called upon as an expert for electronic or print media)**

None

## **PUBLICATIONS**

### **Revision requested/preparing to submit to new journal**

Centrella M., L. Russo, N. Moreno-Ramirez, B. Eitzer, M. van Dyke, B. Danforth, **K. Poveda**. Landscape simplification reduces solitary bee performance in agroecosystems via increased pesticide exposure, reduced floral diet diversity, and their interaction. *Journal of Applied Ecology* (invited to resubmit).

H. Grab, R. Perez, A. Bergmann, G. Loeb & **K. Poveda**. Bees in simplified landscapes are smaller, less effective pollinators. *Ecology Letters*

### **In review**

**Poveda K.**, M.F. Díaz, S. Espinosa, D. Obregon, and A. Ramirez. Landscape simplification decreases effectiveness of a local pest-management practice. *Global Ecology and Conservation*

### **Refereed Papers**

48. R Perez-Alvarez, BA Nault, K Poveda. 2019. Effectiveness of augmentative biological control depends on landscape context. *Scientific reports* 9 (1), 8664
47. D Mutyambai, E Bass, T Luttermoser, K Poveda, CAO Midega, ZR Khan, A Kessler. 2019. More than 'Push' and 'Pull'? Plant-soil feedbacks of maize companion cropping increase chemical plant defenses against herbivores. *Frontiers in Ecology and Evolution* 7, 217
46. Grab H., J. Brokaw, E. Anderson, L. Gedlinske, J. Gibbs, J. Wilson, G. Loeb, R. Isaacs and K. Poveda. Habitat enhancements for pollinators buffer the negative effects of landscape intensification on bee body size. *Journal of Applied Ecology* (accepted)
45. S.R. Whitehead & K. Poveda. 2019. Resource Allocation Trade-offs and the Loss of Chemical Defenses During Apple Domestication. *Annals of Botany* 123 (6), 1029-1041
44. Grab H., M. Branstetter, N. Amon, E.J. Blitzer, J. Gibbs, M. Park, K. Urban-Mead, **K. Poveda**, G. Loeb, B. Danforth. Agriculturally dominated landscapes reduce bee phylogenetic diversity and pollination services. *Science* 363 (6424): 282-284

43. Weintraub R., E. Garrido, K. Poveda. 2018. [Age-Dependent Potato Tolerance to Herbivory in Different Nutrient Environments](#). American Journal of Potato Research 95 (6), 642-649
42. Grab H., **K. Poveda**, B. Danforth & G Loeb. 2018. Landscape context shifts the balance of costs and benefits from wildflower borders on multiple ecosystem services. Proceedings of the Royal Society B: Biological Sciences 285 (1884), 20181102
41. Karp D. et al. (**K. Poveda** as one of 117 co-authors) Crop pests and predators exhibit inconsistent responses to surrounding landscape composition. Proceedings of the National Academy of Sciences (PNAS) 115 (33), E7863-E7870
40. Kumar, P., G. Etzel, K. Zhao, Y. Zheng, S. Alseekh, E. Vargas-Ortiz, A. Fernie, Z. Fei, **K. Poveda**, G. Jander. 2018. *Tecia solanivora* infestation increases tuber starch accumulation in Pastusa Suprema potatoes. Journal of Integrative Plant Biology. 60 (11) : 1083–1096 <https://doi.org/10.1111/jipb.12675>
39. Perez-Alvarez R., B.A. Nault, **K. Poveda**. 2018. Contrasting effects of landscape composition on crop yield mediated by specialist herbivores. Ecological Applications 28(3): 842-853
38. **Poveda K.**, M.F. Díaz & A. Ramirez. 2018. Can overcompensation increase crop production? Ecology 99 (2), 270-280
37. Grab H., B. Danforth, **K. Poveda** & G. Loeb. 2018. Landscape simplification reduces classical biological control and crop yield. Ecological Applications 28(2): 348-355
36. Chauta A., S. Whitehead, M. Amaya-Marquez & **K. Poveda**. 2017. Leaf herbivory imposes fitness costs mediated by hummingbird and insect pollinators. PloSone 12(12), e0188408
35. Garrido E, Diaz MF, Bernal H, Nustez CE, Thaler J, G. Jander & **K. Poveda**. (2017) Costs and Tradeoffs of Resistance and Tolerance to Belowground Herbivory in Potato. PLoS ONE 12 (1): e0169083. doi:10.1371/journal.pone.0169083
34. Lichtenberg E.M. et al. (**K. Poveda** is 26th of 34 authors).2017. A global synthesis of the effects of diversified farming systems on arthropod diversity at field and landscape scales. Global Change Biology. DOI: 10.1111/gcb.13714
33. Grab H., E.J. Blitzer, G. Loeb, B. Danforth & **K. Poveda**. 2017 Temporally dependent pollinator competition and facilitation with mass flowering crops affects yield in co-blooming crops. Scientific Reports 7. Article number: 45296. doi:10.1038/srep45296
32. Whitehead S.R., M. Turcotte & **K. Poveda**. 2017. Domestication impacts on plant-herbivore interactions: a meta-analysis. Philosophical Transactions of the Royal Society B. 372(1712): 20160034
31. Turcotte M., H. Araki, D.S. Karp, **K. Poveda** & S.R. Whitehead S.R. 2017. The evolutionary impacts of domestication and agricultural practices on wild species. Philosophical Transactions of the Royal Society B. 372(1712): 20160033
30. Tschamtko T., D. Karp, R. Chaplin-Kramer, P. Batary, F. DeClerk, C. Gratton, A. Ives, M. Jonsson, A. Larsen, E. Martin, A. Martinez-Salinas, T. Meehan, M. O'Rourke, **K. Poveda**, J. Rosenheim, A. Rusch, N. Schelhorn, T. Wagner, S. Wratten, W. Zhang. 2016. When natural habitat fails to enhance biological pest control – Five hypotheses, Biological Conservation, Available online: <http://dx.doi.org/10.1016/j.biocon.2016.10.001>
29. Echeverria-Londono S., T. Newbold, L. Hudson, S.Contu, S. Hill, I. Lysenko, E. Arbelaez-Cortes, I. Armbrrecht, T. Boekhout, J. Cabra-Garcia, Y. Dominguez-Haydar, G. Nates-Parra, D. Gutierrez-Lamus, D. Higuera, P. J. Isaacs-Cubides, C. A. Lopez-

- Quintero, E. Martinez, D. R. Miranda-Esquivel, L. E. Navarro-Iriarte, J. A. Noriega, S. Eduardo Otavo, A. Parra-H, **K. Poveda**, M. P. Ramirez-Pinilla, J. C. Rey-Velasco, L. Rosselli, A. Smith-Pardo, G. Stiles, J.N. Urbina-Cardona & A. Purvis. (2016) Modelling and projecting the response of Colombian biodiversity to land-use change. *Diversity and Distribution* 22: 1099–1111.
28. De Palma A., et al. (**K. Poveda** is 51<sup>th</sup> of 64 authors). (2016) Predicting bee community responses to land-use changes: effects of geographic and taxonomic biases. *Scientific Reports* 6:31153.
  27. Kumar P., E. Vargas Ortiz, E. Garrido, **K. Poveda** & G. Jander (2016) Potato tuber herbivory increases resistance to aboveground lepidopteran herbivores. *Oecologia*. Published online. DOI: 10.1007/s00442-016-3633-2.
  26. Renaud M., A. Hutchinson, G. Loeb, **K. Poveda**, & H. Connelly (2016) Landscape simplification constrains adult size in a native ground-nesting bee. *PLoS ONE* 11: e0150946.
  25. Stieha C., K. Abbott & **K. Poveda** (2016) The effects of plant compensatory regrowth and induced resistance on herbivore population dynamics. *The American Naturalist* 187:167-181.
  24. Huseh A. S., J. D. Petersen, **K. Poveda**, Z. Szendrei, B. A. Nault, G. G. Kennedy & R. L. Groves (2015) Spatial and temporal potato intensification drives insecticide resistance in the specialist herbivore, *Leptinotarsa decemlineata*. *PLoS ONE* 10: e0127576
  23. Connelly H., **K. Poveda** & G. Loeb (2015) Landscape simplification limits wild bee pollination services to strawberry. *Agriculture, Ecosystems and the Environment* 211:51-56.
  22. Raguso R.A., Agrawal A.A., Douglas A.E., Jander G, Kessler A., **Poveda K.** & J. S. Thaler (2015) The raison d'être of chemical ecology. *Ecology* 96:617-630.
  21. Christopher Stieha C. & **K. Poveda** (2015) Tolerance responses to herbivory: implications for future management strategies in potato. *Annals of Applied Biology* 166: 208-217.
  20. Hudson L., et al (**K. Poveda** is 134<sup>th</sup> of 200 authors). (2014) The PREDICTS database: a global database of how local terrestrial biodiversity responds to human impacts. *Ecology and Evolution* 4: 4701-4735.
  19. Gomez Jimenez M.I., Sarmiento C.E., Diaz M.F. Chauta J.A., Peraza A., Ramirez A. & **K. Poveda** (2014) Oviposition, larval preference, and larval performance in two polyphagous species: does the larva know best? *Entomologia Experimental et Applicata* 153:24-33.
  18. Whitehead S.R., Reid E., Sapp J., **Poveda K.**, Royer A.M., Posto A.L. & A. Kessler (2014) A Specialist Herbivore Uses Chemical Camouflage to Overcome the Defenses of an Ant-Plant Mutualism. *PLoS ONE* 9: e102604.
  17. **Poveda K.** & A. Kessler (2012) Plant volatiles as functional cues in intercropping systems. *Journal of Chemical Ecology* 38:1341.
  16. Chautá-Mellizo A., S. Campbell, M.A. Bonilla, J.S. Thaler & **K. Poveda** (2012) Effects of natural and artificial pollination on fruit and offspring quality. *Basic and Applied Ecology* 13:525-532.
  15. **Poveda K.**, M.I. Gómez. R. Halitschke & A. Kessler (2012) Overcompensating plants: their expression of resistance traits and effects on herbivore preference & performance. *Entomologia Experimentalis et Applicata* 143: 245-253.

14. **Poveda K.\***, E. Martínez\*, M.F. Kersch-Becker, M. A. Bonilla & T. Tschardtke (2012) Landscape simplification and altitudinal variation affect biodiversity, herbivory and Andean potato yield (\*equal authorship). *Journal of Applied Ecology* 49:513-522.
13. Díaz M.F, A. Ramírez & **K. Poveda** (2012) Efficiency of different egg parasitoids and increased floral diversity for the biological control of noctuid pests. *Biological Control* 60:182-191.
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## **PROFESSIONAL OVERVIEW AND OBJECTIVES**

My research focuses on the ecology of plant-insect interactions in agricultural systems and their interface with natural systems. I focus on two main themes: 1) The effect of diversity at local and landscape scales on ecosystem services important for agricultural systems, including pollination, herbivory, biological control and ultimately yield, and 2) the ecological, physiological, and genetic mechanisms of plant tolerance and resistance traits in agricultural crops. We seek to improve our understanding of ecological phenomena in agroecosystems that can potentially inform management strategies important for more sustainable agricultural production. My research approach involves rigorously designed field experiments at farm- or landscape-scales, combined with greenhouse and laboratory experiments that provide insight into the mechanisms driving the field patterns. I feel very passionate about personalized mentoring and teaching students at all levels of education. My research is conducted in agro-ecosystems in Colombia, Kenya, Malawi, Costa Rica and the US.