



## CONTACT

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Cornell University  
Ithaca, NY 14853  
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## EDUCATION

- 2017 PhD, Entomology  
**Cornell University**  
Ithaca, NY  
PI: **Greg Loeb**
- 2011 BS, Ursinus College  
Collegeville, PA  
Biology & Biostatistics

## EXPERTISE

Landscape Ecology  
Pollination Biology  
Biological Control  
Agroecology  
Phyloecology  
Conservation Ecology  
Public Science Outreach

## SKILLS

R  
Python  
ArcGIS  
QGIS  
Gephi  
Genious  
Bee Taxonomy

# HEATHER GRAB

## PUBLICATIONS

- \*McCabe, E.A., Loeb, G.M, and **H. Grab** (*in review*) Responses of crop pests and natural enemies to wildflower borders depends on functional group. *Insects*. Murray, E; J. Burand, \*N. Trikoz, **H. Grab** & B. Danforth. (*in review*) Infection patterns of three viruses shared in honeybees and native bees, with a worldwide phylogeny of black queen cell virus. *Nature Ecology & Evolution*
- Grab, H.**, Danforth, B.N., Poveda, K. & G. Loeb (*in review*) Landscape influences classical biological control and crop yield. *Ecological Applications*.
- Grab, H.**, Blitzer, E.J., Danforth, B.N. Loeb, G & Poveda, K. (2017) Spillover of pollinators between crops: competition or facilitation. *Scientific Reports*
- Lichtenberg, E.M., Kennedy, C.M., Kremen, C., Batáry, P., Berendse, F., Bommarco, R., Bosque-Pérez, N.A., Carvalheiro, L.G., Snyder, W.E., Williams, N.M., Winfree, R, ..., **H. Connelly**, et al. (2017) A global synthesis of the effects of diversified farming systems on arthropod diversity at field and landscape scales. *Global Change Biology*.
- Wallingford, A.K., **H. Connelly**, G. Dore Brind'Amour, M.T. Boucher, A. Mafra-Neto, and G.M. Loeb. 2016. Field evaluation of an oviposition deterrent for management of spotted-wing drosophila, *Drosophila suzukii*, and potential nontarget effects. *Journal of Economic Entomology*: doi: 10.1093/jee/tow116
- \*Renauld, M., \*Hutchinson, A., Loeb, G., Poveda, K & **H. Connelly** (2016) Landscape simplification constrains adult size in a native ground nesting bee. *PLOS One* 11(3), e0150946.
- Connelly, H.**, Poveda, K & Loeb, G. (2015) Landscape simplification decreases wild bee pollination services to strawberry. *Agriculture, Ecosystems and the Environment*, 211, 51-56

\* indicates undergraduate co-author

## INVITED TALKS

- Grab, H.**, B. Danforth, K. Poveda and G. Loeb, "Managing farms and landscapes for pollination and biological control" 3<sup>rd</sup> International Pollinator Meeting, State College PA (2016)
- Figueroa, LL., **H. Grab**, P. Graystock, Q. McFrederick and S. McArt "Pathogen Prevalence in Plant-Pollinator Networks" 3<sup>rd</sup> International Pollinator Meeting, State College PA (2016)
- VanDyke, M., **H. Grab**, and B. Danforth "The Northeast pollinator partnership" 3<sup>rd</sup> International Pollinator Meeting, State College PA (2016)
- Poveda, K., **H. Grab** and R.P. Alvarez "Advantages from natural habitats for yield: How landscape simplification can affect yield through arthropod mediated ecosystem services and disservices" Ecological Society National Meeting, Ft. Lauderdale FL (2016)
- Connelly, H.**, B. Danforth, K. Poveda and G. Loeb. "Interactive effects between local and landscape diversity on ecosystem services" ESA National Meeting, Minneapolis MN (2015)
- Connelly, H.**, K. Poveda B. Danforth and G. Loeb. "Spatial and Temporal Drivers of Pollination Services in Agroecosystems" Chapman Seminar, Dept. of Entomology, Ithaca NY (2015)
- Connelly, H.**, K. Poveda B. Danforth and G. Loeb. "Farmscaping with Native Plants to Attract Pollinators" Native Landscape Symposium, Ithaca, NY (2014)



# HEATHER GRAB

## APPOINTMENTS

POSTDOCTORAL RESEARCHER  
POVEDA LAB  
CORNELL UNIVERSITY  
JUNE 2017 - PRESENT

EXTENSION & OUTREACH  
ASSISTANT |  
DEPT OF ENTOMOLOGY  
AUG 2011 - MAY 2012

Design and implement outreach and extension projects for the department including talks at 35 venues reaching a total audience of over 3,550

## PROFESSIONAL MEMBERSHIPS

Pollinator Partnership,  
2014-Present

National Pollinator Protection  
Campaign, 2014-Present

Sigma Xi Scientific Research  
Society, 2013-Present

Entomological Society of  
America, Sept 2012-Present

## AWARDS

Student Talk Award at the  
Entomology Department  
Symposium (2013 & 2015)

President's Prize for 1<sup>st</sup> Place in the  
ESA 10 minute paper competition  
(2013 & 2014 & 2015 & 2016)

Entomology Society of America  
John Henry Comstock Award (2015)

Palmer Fellowship (2016)

Gyrisco Award in Applied  
Entomology (2016)

CALS Outstanding Graduate  
TA Award (2017)

## GRANTS

2016	CALS Alumni Association Grant, \$500
	Andrew W. Mellon Student Research Grant, \$1,000
2015	Grace H. Griswold Fund, \$1,442
	Paul J. Chapman Graduate Student Fellowship, \$44,000
	Hatch Grant Supplement, 2015, \$1,000
	CALS Alumni Association Grant*, \$500
	Rawlins Graduate Travel Grant, \$572
	Cornell Conference Travel Grant, \$414
2014	Cornell Conference Travel Grant, \$515
	Cornell Research Travel Grant, \$1,880
	Rawlins Graduate Travel Grant, \$550
	USDA NIFA Student Travel Grant, \$500
	Atkinson Sustainable Biodiversity Fund, \$5,000
	Rawlins Graduate Travel Grant, \$365
2013	Towards Sustainability Fund, \$9,000
	Grace H. Griswold Fund, \$1,561
	Cornell Conference Travel Grant, \$440
2012	Northeastern SARE Graduate Student Grant, \$14,975

## MENTORED STUDENTS

Jacob Leiby	Influence of landscape structure on wild bee communities in strawberry
Brett Morgan	Pollinator communities of the wild strawberry, <i>Fragaria virginiana</i>
Hayley Stanboro	Effects of flowering field margins on predator and herbivore communities
Melanie MacMullen	Assessing potential for pollinator competition between apple and strawber
Alena Hutchinson	Intra-specific body size variation in wild bees across a landscape gradient
Ellie McCabe	Interactions between pollinators and herbivores mediated by fruit quality
Melody So	Plant pollinator networks in flowering strip restorations
Kabeera Fox	Influence of landscape structure on parasitoid communities attacking <i>Lygu. lineolaris</i>
Miles Renauld	Effects of habitat restoration on body size distributions in a native bee
Nolan Amon	Landscape effects on bee community phylodiversity
Erin Krichilskey	Factors influencing <i>Ascospaera</i> prevalence in <i>Osmia cornifrons</i>



# HEATHER GRAB

## EXTENSION & OUTREACH

- 2016  
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2015  
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2014  
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2013  
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2012
- Instructor**, NYS Pesticide Management Education Program
  - Leader**, Bug and Butterfly Walk, Finger Lakes Land Trust 2013, 14, 15 & 16  
Outreach about insect diversity and importance.
  - Volunteer Coordinator**, Insectapalooza, Ithaca NY
  - Presenter**, Small Fruit Open House, Ithaca, NY
  - Volunteer**, New York State Fair, Syracuse, NY, 2013 & 2014
  - Volunteer**, Empire Farm Days, Seneca Falls, NY, 2012 & 2014
  - Co-organizer**, Entomology Station, Organic Field Day, Freeville, NY, 2013
  - 4H STEM Outreach Videos**, 4H Scientifically Speaking, 2012 & 2013  
<http://www.youtube.com/watch?v=B2JdRPKYyTc>
  - Workshop Leader**, 4H Career Explorations, 2012 & 2013
  - Workshop Leader**, Expanding Your Horizons, Cornell University, 2012 & 2013
  - Panelist**, Girl Scouts Connect a Million Minds Program, April 19, 2012
  - Extension and Outreach Assistant**, Cornell Entomology Dept. 2012  
*Total of 750 hours across 35 venues reaching a total audience of 8,550*
  - Naturalist Outreach Spring Coordinator**, Cornell Entomology Dept. 2012  
Scheduled and coordinated talks for the Naturalist Outreach Speakers Bureau

## PROFESSIONAL SERVICE

- 2017  
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2016  
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2015  
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2014  
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2013  
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2012
- Co-organizer**, Landscape simplification: effects on arthropods, ecosystem services and agricultural production, Program Symposium, ESA National Meeting, Denver, CO 2017
  - Co-organizer**, Landscape simplification: effects on arthropods, ecosystem services and agricultural production, Section Symposium, ESA National Meeting, Denver, CO 2017
  - Reviewer**, *Environmental Entomology, Agriculture Ecosystems & the Environment*
  - Member**, Professional Development Committee, Cornell Entomology
  - Co-organizer**, Landscape simplification: effects on arthropods, ecosystem services and agricultural production, Section Symposium, ESA National Meeting, Minneapolis, MN 2015
  - Leader**, Active Learning Workshop, Cornell University
  - Organizer**, Graduate Extension Workshop, Cornell University
  - Early Career Fellow**, Atkinson Center for a Sustainable Future, Jan 2014-Present
  - Member**, Insectapalooza Planning Committee, Cornell Entomology
  - Co-Chair** of Volunteer Organizing Committee 2012, 2013 & 2014
  - President**, Entomology Grad. Student Organization, Cornell Ento. 2013 – 2015
  - Reviewer**, Sustainable Biodiversity Fund Grant Panel, Cornell University
  - Chair**, Department Symposium Planning Committee, Cornell, 2012 – 2014
  - Co-organizer**, Annual Research Symposium, Cornell Entomology, 2012-2014
  - Secretary**, Entomology Grad Student Organization, Cornell Entomology
  - Field Rep**, Graduate and Professional Student Assn., Cornell University



# HEATHER GRAB

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## TEACHING EXPERIENCE

2017	Spring	<b>Guest Lecturer</b> , Applied Statistics, Department of Entomology, Cornell University, Ithaca, NY. <ul style="list-style-type: none"><li>• Delivered 1 week of lectures and labs while instructor was traveling</li></ul>
2016	Fall	<b>Guest Lecturer</b> , Agroecology, Department of Biology, Hobart William Smith College, Geneva, NY. <b>Course Development &amp; Guest Lecturer</b> , Field Biology, Natural Resources Department, Cornell University, Ithaca, NY.
2015	Full Year	<b>Graduate Teaching Fellow</b> , Center for Teaching Excellence, Cornell University <ul style="list-style-type: none"><li>• Facilitate workshops on best practices on higher education teaching</li><li>• Lead discussion groups for new and current TAs across the university</li><li>• Facilitate training sessions for new and ESL TAs</li></ul>
	Fall	<b>Course Development &amp; Guest Lecturer</b> , Field Biology, Natural Resources Department, Cornell University, Ithaca, NY. <ul style="list-style-type: none"><li>• Developed a one week module on entomology including a lecture and a series of two labs.</li></ul>
	Fall	<b>Guest Lecturer</b> , Agroecology, Department of Biology, Hobart William Smith College, Geneva, NY.
	Fall	<b>Guest Lecturer</b> , Insect Phylogeny and Evolution, Department of Entomology, Cornell University, Ithaca, NY.
	Fall	<b>Guest Lecturer</b> , Professional Development in Entomology, Department of Entomology, Cornell University, Ithaca, NY.
	Spring	<b>Teaching Assistant</b> , Applied Statistics, Department of Entomology, Cornell University, Ithaca, NY. <ul style="list-style-type: none"><li>• Managed course logistics, graded and developed laboratory Exercises in the statistical program R, supervised undergraduate TA, mentored students on class projects.</li></ul>
2014	Fall	<b>Guest Lecturer</b> , Agroecology, Department of Biology, Hobart William Smith College, Geneva, NY.
	Fall	<b>Guest Lecturer</b> , Professional Development in Entomology, Department of Entomology, Cornell University, Ithaca, NY.
	Fall	<b>Teaching Assistant</b> , Insect Biology, Department of Entomology, Cornell University, Ithaca, NY. <ul style="list-style-type: none"><li>• Guided lab activities, developed practical exams, curated course insect collections.</li></ul>
2013	Fall	<b>Guest Lecturer</b> , Professional Development in Entomology, Department of Entomology, Cornell University, Ithaca, NY.
2012	2012-2014	<b>Teaching Assistant</b> , Investigative Biology, Department of Biology, Cornell University, Ithaca, NY. <ul style="list-style-type: none"><li>• Led two 3 hours lab sections a week, graded exams and papers.</li></ul>