

# ENTOMOLOGY (GRADUATE FIELD)

Program Website (<https://cals.cornell.edu/entomology/>)

## Field Description

Excellent facilities for laboratory and field studies include the outstanding Entomology Library collection and a renowned insect collection on the Cornell campus. The Boyce Thompson Institute at Cornell and the Cornell AgriTech at Geneva are outstanding research facilities.

For doctoral degree candidates, the qualifying examination should be taken by the fifth semester.

## Data and Statistics

- Research Master's Program Statistics (<https://gradschool.cornell.edu/about/program-metrics-assessments-and-outcomes/research-masters-program-statistics/?SelectGradField=47>)
- Doctoral Program Statistics (<https://gradschool.cornell.edu/about/program-metrics-assessments-and-outcomes/doctoral-program-statistics/?SelectGradField=47>)

## Field Manual

- Manual (<https://cals.cornell.edu/education/degrees-programs/graduate-field-entomology/resources-entomology-graduate-students/>)

## Subject and Degrees

### Entomology

- Entomology (MS) (<https://catalog.cornell.edu/programs/entomology-ms/>)
- Entomology (PhD) (<https://catalog.cornell.edu/programs/entomology-phd/>)

## Concentrations by Subject

### Entomology

- acarology
- apiculture
- applied entomology
- aquatic entomology
- biological control
- general entomology (minor)
- insect behavior
- insect biochemistry
- insect ecology
- insect genetics
- insect morphology
- insect pathology
- insect physiology
- insect systematics
- insect toxicology and insecticide chemistry

- integrated pest management
- medical and veterinary entomology

## Faculty

Anurag Agrawal (<http://agrawal.eeb.cornell.edu/prof-anurag-agrawal/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect behavior; insect ecology
- **Research Interests:** insect ecology; insect behavior

Nicolas S Buchon (<http://cals.cornell.edu/nicolas-buchon/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: general entomology; insect genetics; insect physiology; medical and veterinary entomology

Bryan Nicholas Danforth (<http://cals.cornell.edu/bryan-nicholas-danforth/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect behavior; insect ecology; insect morphology; insect systematics
- **Research Interests:** morphology, molecular systematics and evolution of bees; social evolution; behavioral ecology; pollination biology

Jason Dombroskie (<http://cals.cornell.edu/jason-dombroskie/>)

- **Campus:** Ithaca - (Minor Member)
- **Concentrations:** *Entomology*: general entomology; insect morphology; insect systematics
- **Research Interests:** insect systematics, general entomology, insect morphology

Christophe Duplais (<http://cals.cornell.edu/christophe-duplais/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect biochemistry; insect ecology; insect toxicology and insecticide chemistry; integrated pest management
- **Research Interests:** Plant-insect interactions, insect-microbe symbiosis, insect chemical ecology, chemical application in pest management

Sara Elizabeth Emery (<http://cals.cornell.edu/sara-emery/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: applied entomology; biological control; insect ecology; integrated pest management
- **Research Interests:** insect phenology, landscape ecology, management of insect pests in agricultural systems, biological control, community ecology, agroecology

Cole Gilbert (<http://cals.cornell.edu/cole-gilbert/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: general entomology; insect behavior; insect physiology
- **Research Interests:** insect physiology; sensory systems; neural basis of behavior

Steven M Grodsky (<http://cals.cornell.edu/steve-grodsky/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* applied entomology; aquatic entomology; insect ecology
- **Research Interests:** Renewable energy ecology and insect conservation

Laura Melissa Guzman Uribe (<http://cals.cornell.edu/melissa-guzman/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* insect ecology; insect genetics
- **Research Interests:** Insect conservation, Community science data, Distributional modelling, Pollinator Biodiversity, Community Ecology

Laura C Harrington (<http://cals.cornell.edu/laura-c-harrington/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* insect ecology; medical and veterinary entomology
- **Research Interests:** medical entomology; mosquito biology; vector-borne disease ecology

Michelle L Heck (<http://www.ars.usda.gov/northeast-area/ithaca-ny/robert-w-holley-center-for-agriculture-health/emerging-pests-and-pathogens-research/docs/michelle-cilia/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* general entomology; insect genetics; integrated pest management
- **Research Interests:** vector-borne pathogens, vector biology, plant-insect interactions, citrus greening, psyllids, aphids, whiteflies, proteomics, mass spectrometry, protein interactions

Tory Hendry (<http://cals.cornell.edu/tory-hendry/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* insect genetics; insect pathology; insect physiology
- **Research Interests:** insect-microbe interactions

Georg Jander (<http://cals.cornell.edu/georg-jander/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* general entomology; insect behavior; insect biochemistry; insect genetics; insect physiology
- **Research Interests:** Plant-insect interactions, plant amino acid metabolism

Brian Paul Lazzaro (<http://cals.cornell.edu/brian-paul-lazzaro/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* insect genetics; insect pathology
- **Research Interests:** insect population genetics; insect immune defenses; molecular evolution; insect pathology

Gregory M. Loeb (<http://cals.cornell.edu/gregory-m-loeb/>)

- **Campus:** Geneva
- **Concentrations:** *Entomology:* applied entomology; biological control; insect ecology; integrated pest management
- **Research Interests:** ecology; integrated pest management; viticulture

John E Losey (<http://cals.cornell.edu/john-e-losey/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* applied entomology; biological control; insect behavior; integrated pest management
- **Research Interests:** applied entomology; biocontrol; insect behavior; insect and ecology; integrated pest management

Brian Lovett (<http://cals.cornell.edu/brian-lovett/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* biological control; general entomology; insect behavior; insect pathology; integrated pest management; medical and veterinary entomology
- **Research Interests:** Insect pathology, entomopathogenic fungi, molecular genetics, evolutionary genomics, and mycology

Scott H. McArt (<http://cals.cornell.edu/scott-mcart/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* general entomology; insect ecology
- **Research Interests:** Chemical ecology; Insect-plant interactions; Pollination biology

Lindsey Ryan Milbrath (<http://www.ars.usda.gov/Aboutus/docs.htm?docid=12117>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* biological control; integrated pest management
- **Research Interests:** biological control; integrated pest management; biological and integrated control of invasive plants

Corrie Saux Moreau (<http://moreaulab.org/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* general entomology; insect behavior; insect ecology; insect morphology; insect systematics
- **Research Interests:** evolution and ecology of insects, molecular systematics and phylogenetics, biogeography, insect associated microbes

Courtney Cuinn Murdock (<http://cals.cornell.edu/courtney-murdock/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* applied entomology; insect ecology; insect pathology; insect physiology
- **Research Interests:** ecology and evolution of infectious diseases, vector-borne disease transmission, vector-pathogen interactions, medical entomology, statistical and mechanistic modeling

Brian A Nault (<http://cals.cornell.edu/brian-nault/>)

- **Campus:** Geneva
- **Concentrations:** *Entomology:* insect ecology; integrated pest management
- **Research Interests:** landscape ecology; insect-transmitted viruses; population ecology; arthropod pest management in vegetable crops; native pollinators

Patrick Michael O'Grady (<http://www.drosophilaevolution.com/current-members.html>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology:* insect systematics

- **Research Interests:** phylogeny and taxonomy of Diptera: Drosophilidae; insect evolution

Katja Poveda (<http://blogs.cornell.edu/katjapoveda/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: applied entomology; insect behavior; insect ecology
- **Research Interests:** landscape ecology; ecology of cropping systems; plant-insect interactions; agroecology

Alison G Power (<http://ecologyandevolution.cornell.edu/alison-g-power/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: biological control; insect behavior; insect ecology; integrated pest management
- **Research Interests:** agricultural ecology; ecology of cropping systems; ecology of insect vectors

Robert A. Raguso (<http://nbb.cornell.edu/robert-raguso/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect behavior
- **Research Interests:** chemical communication between flowers and their pollinators; floral chemistry; insect behavior; sensory systems

Linda Susan Rayor (<http://blogs.cornell.edu/rayor/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect behavior
- **Research Interests:** spider and insect behavior; behavioral ecology; arachnology

Robert D. Reed (<http://reedlab.org/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect genetics; insect morphology
- **Research Interests:** evolution and development of butterfly wing patterns; strong organismal focus on insects - specifically Lepidoptera; insect biodiversity

Monique Joy Rivera (<http://cals.cornell.edu/monique-rivera/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: applied entomology; biological control; insect behavior; insect ecology; insect toxicology and insecticide chemistry; integrated pest management
- **Research Interests:** applied insect ecology; agricultural entomology; integrated pest management; soil ecology

Jeffrey Graham Scott (<http://blogs.cornell.edu/scott/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect biochemistry; insect genetics; insect physiology; insect toxicology and insecticide chemistry
- **Research Interests:** insecticide resistance and mode of action; population genetics; evolutionary biology; gene regulation

Kerry L. Shaw (<http://nbb.cornell.edu/kerry-l-shaw/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect genetics

Brent Sinclair (<http://cals.cornell.edu/brent-sinclair/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: applied entomology; insect biochemistry; insect ecology; insect physiology
- **Research Interests:** Thermal biology, Metabolism, Environmental physiology, Insect overwintering

Mabel L Taracena (<http://cals.cornell.edu/mabel-l-taracena/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect genetics; insect physiology; medical and veterinary entomology
- **Research Interests:** genetics, physiology, vector biology and vector control

Jennifer S. Thaler (<http://blogs.cornell.edu/thaler/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect ecology
- **Research Interests:** insect ecology

Ping Wang (<http://blogs.cornell.edu/wang/>)

- **Campus:** Geneva
- **Concentrations:** *Entomology*: insect biochemistry; insect genetics; insect pathology; insect physiology
- **Research Interests:** insect biochemistry and molecular biology; molecular basis of insect-plant and insect-pathogen interactions

Kyle G. Wickings (<http://cals.cornell.edu/kyle-wickings/>)

- **Campus:** Geneva
- **Concentrations:** *Entomology*: insect ecology
- **Research Interests:** soil arthropod ecology, turfgrass entomology, soil biogeochemistry, feedbacks between soil arthropod communities and ecosystem processes/services.

Samantha Anne Willden (<http://cals.cornell.edu/samantha-willden-0/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: applied entomology; insect ecology; integrated pest management
- **Research Interests:** controlled environment entomology, community ecology, fruit and vegetable crops

Beatriz Willink Castro (<http://cals.cornell.edu/beatriz-willink/>)

- **Campus:** Ithaca
- **Concentrations:** *Entomology*: insect behavior; insect genetics; insect systematics
- **Research Interests:** insect evolution, evolution of sexual dimorphism and phenotypic polymorphisms, systematics and biogeography of Odonata