

Edwin (“Ted”) Ridgway Burgess IV

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Education

- 2012 - present Ph.D. candidate, Department of Biological Sciences, Northern Illinois University.
Expected graduation: Fall 2016
Dissertation title: "Assessing the compatibility of filth fly pesticides with filth fly biological control parasitoids through toxicological and behavioral assays."
Advisor: Dr. Bethia H. King
GPA: 3.8/4.0
- Apr – Sep 2012 Entomology Research and Development Intern at Clarke Mosquito Control Products & Services, Roselle, IL, phone: (630)894-2000
- 2006 - 2010 B.S. in Biology, Northern Illinois University

Ongoing Research

- Quantifying pesticide residues found in filth fly breeding environments
- Toxicological effects of two non-nutritive sugars against the house fly, *Musca domestica*.
- Field test of compatibility of bait and *Spalangia endius*, a pupal parasitoid of filth flies.
- Analysis of the larvicidal properties of non-nutritive sugars against house fly larvae

Publications

- **Burgess, ER** and King, BH. 2015. Compatibility of the parasitoid wasp *Spalangia endius* (Hymenoptera: Pteromalidae) and insecticides against *Musca domestica* (Diptera: Muscidae) as evaluated by a new index. *Journal of Economic Entomology* 108: 986-992.
- Cooper, J, **Burgess IV, ER** and King, BH. 2013. Courtship behavior and detection of female receptivity in the parasitoid wasp *Urolepis rufipes*. *Journal of Insect Behavior* 26:745-761.

Manuscripts in Review or Preparation

- **Burgess, ER** and King, BH. Behavior and survival of the filth fly parasitoids *Urolepis rufipes* and *Spalangia endius* (Hymenoptera: Pteromalidae) to three granular house fly baits and components. *Environmental Entomology*, *in review*.
- **Burgess, ER**, Kremer, A, Elsawa, SF, and King, BH. *submitted*. Effects of sublethal imidacloprid exposure on *Spalangia endius*, a pupal parasitoid of filth flies. *Biocontrol*, *in review*.
- **Burgess, ER** and King, BH. Insecticidal properties of two non-nutritive polyol sweeteners to adult house flies, *Musca domestica* L. (Diptera: Muscidae). In preparation.

Broader Impact Activities

- **Burgess, ER**, Toxicology Basics. Freshman honors class at Larkin High School, Elgin, IL (Mar 2015).
- **Burgess, ER**, King, BH. [The Good the Bad and the Buggy. STEM Café](#), DeKalb, IL (Mar 2014).
- **Burgess, ER**, Entomology Basics. Freshman honors class at Larkin High School, Elgin, IL (Sep 2014).

Presentations

- **Burgess, ER**. Evaluation of two novel non-nutritive sugars as potential pesticides against the house fly (*Musca domestica*). Invited speaker, Symposium on new approaches to biological control changing global perspectives on filth fly management, International Congress of Entomology, Orlando, Florida, 30 September 2016.
- **Burgess, ER**. A new index to assess compatibility of pesticides with beneficial organisms. Midwestern Ecology and Evolution Conference, Miami University, March 19-20, 2016.
- **Burgess, ER**. Sublethal effects of a neonicotinoid on a natural enemy of filth flies. Entomological Society of America National Meeting, Minneapolis, Minnesota, November 15-18, 2015.
- **Burgess, ER**. Strange bee-havior: A look at how agricultural chemicals can affect native bee populations. US Fish and Wildlife Service Upper Mississippi River Refuge, Thomson, Illinois, June 20, 2015.
- **Burgess, ER**, King, BH. Sublethal effects of a neonicotinoid on a natural enemy of filth flies. Midwestern Ecology and Evolution Conference, Indiana University, March 29, 2015.
- Trebel, L, **Burgess, ER**, King BH. The effects of pesticides on natural enemies of pest flies. 4th Annual Undergraduate Research & Artistry Day, Northern Illinois University, April 24, 2014.
- **Burgess, ER**, King BH. Comparative toxicity of seven common filth fly pesticides in the pupal parasitoid, *Spalangia endius*. Phi Sigma Biological Honor Society Research Symposium, Northern Illinois University, April 2013.
- Cooper, J, **Burgess, ER**, King, BH, Female antennae and male mouthparts: role in courtship of the parasitoid wasp *Urolepis rufipes*. Phi Sigma Biological Honor Society Research Symposium, Northern Illinois University, April 2010.

Professional Memberships

Entomological Society of America

Awards

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| 2016 | Northern Illinois University Dissertation Completion Fellowship |
| 2016 | Northern Illinois University "Kill Pests But Not their Natural Enemies." College of Liberal Arts & Sciences and Office of Student Engagement and Experiential Learning |
| 2016 | Northern Illinois University Biological Sciences departmental travel grant, Spring semester |
| 2015 | Northern Illinois University Biological Sciences departmental travel grant, Fall semester |
| 2015 | Northern Illinois University Biological Sciences departmental travel grant, Spring semester |

Teaching Experience

Graduate Teaching Assistant at Northern Illinois University

- **General Ecology lab** (Fall 2013/2014/2015). I completely redesigned this course in 2014. This course involves several field trips.
- **Biostatistical Analysis** (Graduate class; Spring 2014/2015/2016). All biology graduate students were required to take this course. I presented background material, assisted students with SPSS and R software, created homework keys and graded weekly homework assignments.
- **Fundamentals of Organismal Biology lab** (Fall 2012/Spring 2013). This course is the second core course that biology majors take, but is also taken by non-majors, particularly those in a pre-professional track. I taught three sections in each of two semesters. I presented background material, supervised laboratory exercises, made and graded weekly quizzes, and graded all of the students' written work, which included topic papers and laboratory notebooks.

Statistics Club Founder

- R Club, A weekly meeting of faculty and graduate students to develop skills in R programming and statistics.

Biostatistics Seminars; Co-Developer

- The New Statistics in R, BIOS 761. Fall 2015.
- An introduction to R-based programming, BIOS 761. Spring 2014.

Professional Experience

Mentor for undergraduate researchers: Cameran Hackman, Brooke Heinsohn, Kyle Huttner, Tyler Bieda, Aspen Kremer, Alex Larson, Nicole Walker, Nancy Laguna-Aguillon, Lynn Hanlon, Courtney Meyers, Lydia Trebels, Megan Sieg, Ben Walter, Joseph Morrow, Kara Kresanek

References

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