

## ROBERT F. MITCHELL

Department of Biology  
University of Wisconsin Oshkosh  
142 Halsey Science Center  
800 Algoma Blvd.  
Oshkosh, WI 54901  
Phone: (920) 424-0930  
email: mitchellr@uwosh.edu  
[http://www.uwosh.edu/faculty\\_staff/mitchellr/](http://www.uwosh.edu/faculty_staff/mitchellr/)



## EDUCATION

---

- 2012      **Doctor of Philosophy**, University of Illinois at Urbana-Champaign (UIUC), Department of Entomology. Dr. Lawrence M. Hanks and Dr. Hugh Robertson, advisors.  
*Dissertation:* Chemical communication in cerambycid beetles and the molecular basis of olfaction.
- 2008      **Master of Science**, UIUC, Department of Entomology. Dr. L. M. Hanks, advisor.  
*Thesis:* Insect frass as a means of transmission for the bacterial wilt of cucurbits.
- 2005      **Bachelor of Science**, Duke University. Biology (major), Computer Science (minor).

## APPOINTMENTS

---

- 2015-present      **Assistant Professor**, Department of Biology, University of Wisconsin Oshkosh
- 2012–2015      **Postdoctoral Fellow**, Postdoctoral Excellence in Research and Teaching. National Institutes of Health, through the Center for Insect Science, University of Arizona, Tucson, AZ, and in the laboratory of Dr. J. G. Hildebrand.
- 2013      **Adjunct Professor**, Pima Community College, Tucson, AZ.
- 2011–2012      **Graduate Fellow**, Scott Dissertation Completion Fellowship, Graduate College, UIUC.
- 2007–2011      **Graduate Research Assistant**, University of Illinois at Urbana-Champaign (UIUC), laboratories of Dr. L. M. Hanks and Dr. M. Alleyne.

## COMPETITIVE GRANTS AND FELLOWSHIPS

---

- |      |           |  |
|------|-----------|--|
| 2017 | \$11,700  | <b>Faculty Development Grant</b> , “ <i>Olfactory genetics of an insect pest</i> ,” University of Wisconsin Oshkosh, Oshkosh, WI.  |
| 2015 | \$2,400   | <b>KEY Award for New Faculty</b> , NIGHTSEA and Electron Microscopy Sciences.  |
| 2013 | \$10,000  | <b>Center for Insect Science Seed Grant</b> , with NK Whiteman (PI), LA Oland and CP Faucher. “ <i>Evolution of the antennal lobe in herbivorous insect brains</i> .” Center for Insect Science, University of Arizona, Tucson, AZ.  |
| 2012 | \$144,500 | <b>Postdoctoral Excellence in Research and Teaching</b> , “ <i>Oviposition preference in Manduca sexta (L.) and the neural circuitry governing host choice</i> .” National Institutes of Health, through the Center for Insect Science, University of Arizona, Tucson, AZ. |
| 2011 | \$1,000   | <b>Isabel Norton Award</b> , School of Integrative Biology, UIUC.  |
| 2011 | \$750     | <b>William H. Luckmann Award for Research in Applied Entomology</b> , Illinois Natural History Survey, UIUC.   |
| 2011 | \$20,000  | <b>Scott Dissertation Completion Fellowship</b> , The Graduate College, UIUC.  |
| 2010 | \$500     | <b>Francis M. and Harlie M. Clark Research Support Grant</b> , School of Integrative Biology, UIUC.  |
| 2009 | \$1,000   | <b>Francis M. and Harlie M. Clark Research Support Grant</b> , School of Integrative   |

2004      \$4800      Biology, UIUC.  
**Research Experiences for Undergraduates**, with Dr. H. F. Nijhout. National Science Foundation, through Duke University, Durham, NC.

## HONORS, AWARDS, TRAVEL GRANTS

---

2017    **Entomological Collections Workshop Travel Grant**, Entomological Collections Network and Entomol. Soc. Am. (\$1000)  
2013    **ISCE Travel Grant**, International Society of Chemical Ecology. (\$1000)  
2012    **Robert Emerson Memorial Award**, School of Integrative Biology, UIUC.  
2011    **First Place**, Student Competition for the President's Prize, Annual Meeting, Entomol. Soc. Am.  
2011    **Best Student Presentation Award**, Annual Meeting, International Society of Chemical Ecology, Burnaby, BC, Canada.  
2011    **Ellis MacLeod/DuPont Award for Outstanding Teaching by a Graduate Student in the Department of Entomology**, Department of Entomology, UIUC.  
2011    **Second Place for Outstanding Presentation of Entomological Research in the Student Competition**, North Central Branch Meeting, Entomol. Soc. Am. Minneapolis, MN, March 2011.  
2010    **Stinger Award**<sup>1</sup>, with ML Richardson, for "The Pharate Carnivore." Annual Meeting, Entomol. Soc. Am., Indianapolis, IN. Media coverage of video in the online edition of the New York Times, 29 November 2012.  
2010    **First Place for Outstanding Presentation of Entomological Research in the Student Competition**, North Central Branch Meeting, Entomol. Soc. Am. Louisville, KY, March 2010.  
2010    **Department Travel Grant**, Department of Entomology, UIUC. (\$200)  
2009    **National Champion Team**, Captain, Linnaean Games<sup>2</sup>, Annual Meeting, Entomol. Soc. Am. Indianapolis, IN, December.  
2009    **First Place for Outstanding Presentation of Entomological Research in the Student Competition**, North Central Branch Meeting, Entomol. Soc. Am. St. Louis, MO, March.  
2009    **Conference Travel Grant**, The Graduate College, UIUC. (\$300)  
2006    **Graduate Teaching Certificate**, Center for Teaching Excellence, UIUC.  
2001    **Outstanding Student Oral Presentation**, Annual Meeting, South Carolina Entomological Society  
**List of Teachers Ranked Excellent by Their Students**, Center for Teaching Excellence, UIUC:  
2009 (Fall), Insect Pest Management  
2006 (Fall), Introduction to Entomology  
2006 (Spring), Insects and People  
2005 (Fall), Animal Biology

## INSTRUCTION AND MENTORSHIP

---

### Semester Courses

Annual      **Instructor**, BIO332/532: Entomology, University of Wisconsin Oshkosh, Oshkosh, WI.  
2015-present    An introduction to the study of insects, covering elements of morphology, physiology, ecology, management, and identification.  
Biannual    **Instructor**, BIO230: Biology of Animals, University of Wisconsin Oshkosh, Oshkosh, WI.  
2015-present    Course for undergraduate biology majors that covers systematics and ecology of major phyla in the animal kingdom.  
Annual      **Instructor**, BIO105: Biological Concepts – Unity, University of Wisconsin Oshkosh,  
2019-present    Oshkosh, WI. Introductory biology for majors and nonmajors, broadly covering biological organization, cell biology, genetics, and evolution.

---

<sup>1</sup> Award for short film on an entomological topic.

<sup>2</sup> Academic trivia competition among teams of four students, focused on entomological knowledge.

- Annual 2018-present **Instructor**, INTRDSCP302: McNair Research Methods. University of Wisconsin Oshkosh, Oshkosh, WI. Intensive, 3-week workshop on methods, statistics, and science writing designed for undergraduate researchers in the McNair Scholars program.
- 2018 (Spring) **Instructor**, BIO766: Advanced Topics in Biology (Chemical Ecology). University of Wisconsin Oshkosh, Oshkosh, WI. Course for graduate students that covers a variety of topics in chemical ecology, emphasizing methods and current literature.
- 2013 (Fall) **Instructor**, BIO206: Biotechnology Instrumentation I, Pima Community College, Tucson, AZ. Combined laboratory/lecture course designed to train students in multiple genetic techniques including restriction digests, gel electrophoresis, southern blotting, PCR, cloning, quantitative PCR, and bioinformatics.
- 2009 (Fall) **Teaching Assistant**, IB482: Insect Pest Management, School of Integrative Biology, U. Illinois at Urbana-Champaign (UIUC), Urbana, IL. Course for entomology graduate students, duties included coordinating guest lecturers and tours of external facilities, guiding students in preparing insect collections, presenting lectures on biology and management of pest insects.
- 2006 (Fall) **Teaching Assistant**, IB460: Introduction to Entomology, UIUC. Course for graduate students and undergraduate biology majors. Duties included developing and teaching labs in insect physiology, behavior, ecology, and systematics.
- 2006 (Spring) **Teaching Assistant**, IB109: Insects and People, UIUC. Course for undergraduate non-majors, duties included teaching lab sections and review sessions for lecture.
- 2005 (Fall) **Teaching Assistant**, IB104: Animal Biology, UIUC. Course for undergraduate biology majors, duties included teaching lab sections, and proctoring practicals and exams.

Guest Lectures

- UW Oshkosh Watercolor 1 (T. Smith; F 2017), Public Health and Food Microbiology (S. Mueller-Spitz; S 2017, S 2018)
- University of Arizona Undergraduate Biology Research Program seminar series (J. Cubeta; S 2015)
- Xavier University General Biology (A. Ray; S 2011, S 2012)
- University of Illinois Insects and People (A. Wild; S 2012), Statistical Consulting (P. Qu; S 2012), Insect Pest Management (L. Hanks; F 2011), Introduction to Entomology (L. Hanks; F 2010), Insect Physiology (M. Alleyne; S 2010)

Mentored Graduate Students, University of Wisconsin Oshkosh

- 2018-present **Luke Walter**. Measuring the effect of chemical defenses of longhorned beetles on vertebrate predators.
- 2017-present **Doua Yang**. Relating the architecture of antennal lobes to pheromone use in cerambycid beetles. Received 2018 UWO Graduate Student/Faculty Collaborative Research Grant, \$3,550. Poster presentation of research, UWO Celebration of Scholarship (UWOCS), 2018.
- 2017-present **Lyndsay Poeschl**. Description and functional study of stridulatory organs in cerambycid beetles. Received 2018 UWO Graduate Student Travel Grant, \$500. Poster presentations of research: North Central Branch of Entomol. Soc. Am., 2018, and UWOCS, 2018.

Mentored Undergraduate Students, University of Wisconsin Oshkosh

- 2018-present **Audra Jenson**. Annotation of olfactory genes from numerous beetle genomes.
- 2018-present **Maria Nummerdor**. Survey of calyptrate flies of east-central Wisconsin.
- 2017-2018 **Allison Clausen**. Characterizing changes in volatile compounds produced by wild lupine under drought and flood conditions. Received 2017 UWO Undergraduate Small Grant, \$430.

- 2016-2018 **Troy Schneider**. Annotation of odorant receptors from numerous beetle genomes. Poster presentation of research, UWOCS, 2018.
- 2016 **Sean Kirkpatrick**. Effect of urbanization on diversity of longhorned beetles in Winnebago Co., WI. Poster presentation of research, UWOCS, 2017.
- 2015-2016 **Adam Schwartz**. Annotation of odorant binding proteins and odorant receptors from the emerald ash borer. Poster presentations of research, UWOCS, 2016, and UW System Symposium, 2016.

#### Mentored Undergraduate Students, Other Institutions

- 2014 **Tiffany Bledsoe**, Pima Community College. Annotation of odorant binding proteins from the Asian longhorned beetle genome, and 3'RACE of incomplete odorant receptor transcripts from other cerambycid species.
- 2013 **Lauren Amos**, Middlebury College. 16-channel neural recording to identify response of *Manduca sexta* antennal lobe neurons to five blends of host plant volatiles.
- 2012-2013 **Arthur Abougou**, Pima Community College. Annotation of select odorant receptor genes in two cerambycid species.

#### Workshops



"Web Design Workshop," April 2010, January 2010, January 2008, UIUC. 3-hour course in basic HTML. Participants created personal web sites with CV and research interests that were linked to the departmental web page.

"What Is (and Isn't) a Bee," BeeSpotter Workshop, 25 June 2008, Champaign, IL. 1-hour course on distinguishing bees from bee mimics, as part of a lecture series during National Pollinator Week in Champaign-Urbana.

#### **REFEREED PUBLICATIONS** (\* denotes student author)

---

26. **Mitchell, RF**, TM Schneider\*, AM Schwartz\*, MN Andersson, and DD McKenna. 2018. The diversity and evolution of odorant receptors in beetles (Coleoptera). *Mol. Biol. Evol.* (*submitted*)
25. **Mitchell, RF**, AM Ray, LM Hanks, and JG Millar. 2018. The common natural products (S)- $\alpha$ -terpineol and (E)-2-hexenol are important pheromone components of *Megacyllene antennata* (Coleoptera: Cerambycidae). *Environ. Entomol.* (*in press*)
24. Schoville, SD, YH Chen, and the **Colorado Potato Beetle Genome Consortium**. 2018. A model species for agricultural pest genomics: the genome of the Colorado potato beetle, *Leptinotarsa decemlineata* (Coleoptera: Chrysomelidae). *Sci. Rep.* 8: 1931.
23. Millar, JG, **RF Mitchell**, JA Mongold-Diers, Y Zou, CE Bográn, MK Fierke, MD Ginzel, CW Johnson, JR Meeker, TM Poland, IR Ragenovich, and LM Hanks. 2018. Identifying possible pheromones of cerambycid beetles by field testing known pheromone components in four widely separated regions of the United States. *J. Econ. Entomol.* 111: 252-259.
22. Millar, JG, **RF Mitchell**, LR Meier, TD Johnson, JA Mongold-Diers, LM Hanks. 2017. (2E,6Z,9Z)-2,6,9-pentadecatrienal as a male-produced aggregation-sex pheromone of the cerambycid beetle *Elaphidion mucronatum*. *J. Chem. Ecol.* 43: 1056-1065.
21. **Mitchell, RF**, LP Hall, PF Reagel, DD McKenna, TC Baker, and JG Hildebrand. 2017. Odorant receptors and antennal lobe morphology offer a new approach to understanding the olfactory biology of the Asian longhorned beetle. *J. Comp. Physiol. A* 203: 99-109.

20. **Mitchell, RF**, T Curkovic, J Mongold-Diers, L Neuteboom, H-M Galbrecht, A Tröger, J Bergmann, W Francke, and LM Hanks. 2017. Evidence that cerambycid beetles mimic vespid wasps in odor as well as appearance. *J. Chem. Ecol.* 43: 75-83.
19. McKenna, DD, ED Scully, Y Pauchet, K Joover, R Kirsch, SM Geib, **RF Mitchell**, RM Waterhouse, and the Asian Longhorned Beetle Genome Consortium\*. 2016. Genome of the Asian longhorned beetle (*Anoplophora glabripennis*), a globally significant invasive species, reveals key functional and evolutionary innovations at the beetle-plant interface. *Genome Biol.* 17:227.
18. Ray, AM, JG Millar, JA Moreira, JS McElfresh, **RF Mitchell**, JD Barbour, and LM Hanks. 2015. North American species of cerambycid beetles in the genus *Neoclytus* share a common hydroxyhexanone-hexanediol pheromone structure. *J. Econ. Entomol.* 108: 1860-8.
17. **Mitchell, RF**, PF Reagel, JCH Wong, LR Meier, WD Silva, J Mongold-Diers, JG Millar, LM Hanks. 2015. Cerambycid beetle species with similar pheromones are segregated by phenology and minor pheromone components. *J. Chem. Ecol.* 41: 431-440. Journal cover. 
16. Goldman-Huertas, B, **RF Mitchell**, RT Lapoint, CP Faucher, JG Hildebrand, and NK Whiteman. 2015. Evolution of herbivory in Drosophilidae linked to loss of behaviors, antennal responses, odorant receptors, and ancestral diet. *Proc. Natl. Acad. Sci. USA* 112: 3026-3031. Journal cover. 
15. Hanks, LM, PF Reagel, **RF Mitchell**, JCH Wong, LR Meier, CA Silliman, EE Graham, BL Striman, KP Robinson, JA Mongold-Diers, and JG Millar. 2014. Seasonal phenology of the cerambycid beetles of east-central Illinois. *Ann. Entomol. Soc. Am.* 107: 211-226.
14. **Mitchell, RF**, JG Millar, and LM Hanks. 2013. Blends of (*R*)-3-hydroxyhexan-2-one and alkan-2-ones identified as potential pheromones produced by multiple species of cerambycid beetles. *Chemoecol.* 23: 121-127.
13. Allison, JD, JL McKenna, JG Millar, JS McElfresh, **RF Mitchell**, and LM Hanks. 2012. Response of the woodborers *Monochamus carolinensis* and *Monochamus titillator* to known cerambycid pheromones in the presence and absence of the host plant volatile alpha-pinene. *Environ. Entomol.* 41: 1587-1596.
12. Ray, AM, JD Barbour, JS McElfresh, JA Moreira, I Swift, IM Wright, A Žunic, **RF Mitchell**, EE Graham, RL Alten, JG Millar, and LM Hanks. 2012. 2,3-Hexanediols are female-produced sex attractant pheromones for cerambycid beetles in the prionine genus *Tragosoma*. *J. Chem. Ecol.* 38: 1151-1158.
11. Hanks, LM, JG Millar, JA Mongold-Diers, JCH Wong, LR Meier, PF Reagel, and **RF Mitchell**. 2012. Using blends of cerambycid beetle pheromones and host plant volatiles to simultaneously attract a diversity of cerambycid species. *Can. J. For. Res.* 42: 1050-1059.
10. **Mitchell, RF**, DT Hughes, CW Luetje, JG Millar, F Soriano-Agatón, LM Hanks, and HM Robertson. 2012. Sequencing and characterizing odorant receptors of the cerambycid beetle *Megacyllene caryae*. *Insect Biochem. Mol. Biol.* 42: 499-505.
9. Wong, JCH, **RF Mitchell**, BL Striman, JG Millar, and LM Hanks. 2012. Blending synthetic pheromones of cerambycid beetles to develop trap lures that simultaneously attract multiple species. *J. Econ. Entomol.* 105: 906-915.

8. Richardson, ML, PF Reagel, **RF Mitchell**, and DW Whitman. 2012. Opportunistic carnivory by *Romalea microptera* (Orthoptera: Acrididae). *Ann. Entomol. Soc. Am.* 105: 28-35. Journal cover.
7. **Mitchell, RF**, EE Graham, JCH Wong, PF Reagel, BL Striman, GP Hughes, MA Paschen, MD Ginzel, JG Millar, and LM Hanks. 2011. Fuscumol and fuscumol acetate are general attractants for many species of cerambycid beetles in the subfamily Lamiinae. *Entomol. Exp. Appl.* 141: 71-77.
6. Richardson, ML, DM Lagos, **RF Mitchell**, GL Hartman, and DJ Voegtlin. Life History and morphological plasticity of the soybean aphid (*Aphis glycines*). 2011. *Entomol. Exp. Appl.* 140: 139-145.
5. Richardson, ML and **RF Mitchell**. 2010. Longer living through science. *Am. Entomol.* 56: 186-188.
4. Graham, EE, **RF Mitchell**, PF Reagel, JD Barbour, JG Millar, and LM Hanks. 2010. Treating panel traps with a fluoropolymer dramatically enhances their efficiency in capturing cerambycid beetles. *J. Econ. Entomol.* 103: 641-647.
3. Richardson, ML, **RF Mitchell**, PF Reagel, and LM Hanks. 2010. Causes and consequences of cannibalism in non-carnivorous insects. *Annu. Rev. Entomol.* 55: 39-53.
2. Philpott, DE, SH Berlocher, **RF Mitchell**, and LM Hanks. 2009. Molecular validation of a morphological character for distinguishing between the armored scale insects *Chionaspis pinifoliae* and *C. heterophyllae* (Hemiptera: Diaspididae). *Ann. Entomol. Soc. Am.* 102: 381-385.
1. **Mitchell, RF**, and LM Hanks. 2009. Insect frass as a pathway for transmission of bacterial wilt of cucurbits. *Environ. Entomol.* 38: 395-403.



## MISCELLANEOUS PUBLICATIONS

---

4. **Mitchell, RF**. 2015. Journal cover photo, *J. Chem. Ecol.* 41, accompanying Mitchell et al. (2015).
3. **Mitchell, RF**. 2012. Journal cover photo, *Ann. Entomol. Soc. Am.* 105, accompanying Richardson et al. (2012).
2. **Mitchell, RF**, and LM Hanks. 2008. Movement of a bacterial plant pathogen through the gut of its beetle vector. Abstract, *Transactions of the Illinois State Academy of Science* 101 (Supplement): 85.
1. **Mitchell, RF**, ML Richardson, PF Reagel, and LM Hanks. 2007. Consequences of cannibalism in non-carnivorous insects. Abstract, *Transactions of the Illinois State Academy of Science* 100 (Supplement): 72.

## MEETINGS ORGANIZED

---

- Symposium: Arthropod chemoreceptors*, with M. N. Andersson. 2018. Annual Meeting, International Society of Chemical Ecology. Budapest, Hungary, 12-18 August.
- Symposium: Chemical communication in longhorned beetles*, with M. D. Ginzel and E. E. Graham. 2014. National Meeting, Entomol. Soc. Am. Portland, OR, 16-19 November.

*Symposium*: Bringing insect diversity to your backyard: Understanding the importance of biodiversity in temperate climates, with SM Colvin and members of the NCB Student Affairs Committee. 2011. North Central Branch Meeting, Entomol. Soc. Am. Minneapolis, MN, 13-16 March.

## INVITED LECTURES

---

- 2018 Great Lakes Forestry Centre, Canadian Forest Service, Sault Ste. Marie, Canada. 28 May.
- 2018 College of Letters and Science Dean's Symposium, UW Oshkosh, Oshkosh, WI. 25 April.
- 2018 Biology Department, Ripon College, Ripon, WI. 9 February.
- 2017 Department of Entomology, Purdue University, West Lafayette, IN. 14 September.
- 2017 Department of Entomology, University of Illinois at Urbana-Champaign, Urbana, IL. 23 January.
- 2016 Department of Entomology, University of Wisconsin, Madison, WI. 4 March.
- 2016 Department of Biology, Lawrence University, Appleton, WI. 21 January.
- 2014 Great Lakes Forestry Centre, Canadian Forest Service, Sault Ste. Marie, Canada. 16 October.
- 2014 Max Planck Institute for Chemical Ecology, Jena, Germany. 6 October.
- 2013 Department of Entomology, University of Arizona, Tucson, AZ. 26 September.

## INVITED SYMPOSIUM PRESENTATIONS (\* denotes student author)

---

- Mitchell, RF**, TM Schneider\*, AM Schwartz\*, MN Andersson, and DD McKenna. 2018. *Symposium*: Arthropod Chemoreceptors. Annual Meeting, International Society of Chemical Ecology. Budapest, Hungary, 12-18 August.
- Mitchell, RF**. 2018. *Symposium*: Sensible Symposium: Exploring the Sensory Ecology of Insects and Related Arthropods. North Central Branch Meeting, Entomol. Soc. Am. Madison, WI, 18-21 March.
- Mitchell, RF**, T Curkovic, JA Mongold-Diers, J Bergmann, W Francke, and LM Hanks. 2017. *Symposium*: Chemical Ecology of Cerambycid Beetles: Basic Science and Practical Applications. National Meeting, Entomol. Soc. Am. Denver, CO, 5-8 November.
- Doucet, D, J Duan, S Bowman, JD Allison, RF Mitchell, P Krell, and J Sweeney. 2017. *Symposium*: Chemical Ecology of Cerambycid Beetles: Basic Science and Practical Applications. National Meeting, Entomol. Soc. Am. Denver, CO, 5-8 November.
- Mitchell, RF**, D Doucet, and JD Allison. 2017. *Symposium*: Chemical Ecology of Forest Ecosystems. Annual Meeting, International Society of Chemical Ecology. Kyoto, Japan, 23-27 August.
- Mitchell, RF**, AM Schwartz\*, and DD McKenna. 2016. *Symposium*: Forest Entomology. North Central Branch Meeting, Entomol. Soc. Am. Cleveland, OH, 5-8 June.
- Mitchell, RF**, and JG Hildebrand. 2014. *Symposium*: Chemical communication in longhorned beetles. National Meeting, Entomol. Soc. Am. Portland, OR, 16-19 November.
- Hall, LP, J Wei, **RF Mitchell**, K Hoover, JG Hildebrand, M Domingue, and TC Baker. 2015. *Symposium*: Chemical communication in longhorned beetles. National Meeting, Entomol. Soc. Am. Portland, OR, 16-19 November.
- Mitchell, RF**, BL Striman, JG Millar, and LM Hanks. 2012. *Symposium*: Chemical ecology of cerambycid beetles. National Meeting, Entomol. Soc. Am. Knoxville, TN, 11-14 November.
- Mitchell, RF**, DT Hughes, CW Luetje, JG Millar, HM Robertson, and LM Hanks. 2012. *Symposium*: Forest Insect Semiochemistry. Pacific Branch Meeting, Entomol. Soc. Am. Portland, OR, 25-28 March.
- Mitchell, RF**, BL Striman, KP Robinson, EE Grahahm, JD Barbour, JG Millar, and LM Hanks. 2011. *Symposium*: Hardly Boring: Cerambycid Workers Symposium. National Meeting, Entomol. Soc. Am. Reno, NV, 13-16 November.

- Mitchell, RF**, HM Robertson, and LM Hanks. 2010. *Symposium: Semiochemistry of the Cerambycidae: A diversity of signaling strategies*. National Meeting, Entomol. Soc. Am. San Diego, CA. 12-17 December.
- Hanks, LM, JG Millar, JD Barbour, AM Ray, **RF Mitchell**, EE Graham, JCH Wong, BL Striman, and MD Ginzel. 2010. *Symposium: Semiochemistry of the Cerambycidae: A diversity of signaling strategies*. National Meeting, Entomol. Soc. Am. San Diego, CA. 12-17 December.
- Ray, AM, JD Barbour, **RF Mitchell**, EE Graham, I Swift, JS McElfresh, LM Hanks, and JG Millar. 2010. *Symposium: Semiochemistry of the Cerambycidae: A diversity of signaling strategies*. National Meeting, Entomol. Soc. Am. San Diego, CA. 12-17 December.
- Alleyne, M, **RF Mitchell**, B Odintsov. 2010. *Symposium: Novel methods to address long-standing questions in entomological research*. North Central Branch Meeting, Entomol. Soc. Am. Louisville, KY, 14-17 March.
- Mitchell, RF**, EE Graham, JG Millar, HM Robertson, and LM Hanks. 2009. *Symposium: The long and short of longicorns: Cerambycid workers symposium*. National Meeting, Entomol. Soc. Am. Indianapolis, IN, 13-16 December.

## CONTRIBUTED PRESENTATIONS (\* denotes student author)

---

- Mitchell, RF**, AM Ray, LM Hanks, and JG Millar. 2015. Annual Meeting of the International Society of Chemical Ecology. Stockholm, Sweden, 29 June -3 July.
- Mitchell, RF**, LP Hall, TC Baker, DD McKenna, and JG Hildebrand. 2014. Annual Meeting of the International Society of Chemical Ecology. Urbana-Champaign, IL, 8-12 July.
- Goldman-Huertas B, RT Lapoint, **RF Mitchell**, and NK Whiteman. 2014. Pacific Branch Meeting, Entomol. Soc. Am. Tucson, AZ, 6-9 April.
- Mitchell, RF** and DD McKenna. 2014. Pacific Branch Meeting, Entomol. Soc. Am. Tucson, AZ, 6-9 April.
- Mitchell, RF** and JG Hildebrand. 2013. National Meeting, Entomol. Soc. Am. Austin, TX, 10-13 November.
- Mitchell, RF**, JG Millar, and LM Hanks. 2013. Annual Meeting of the International Society of Chemical Ecology. Melbourne, Australia, 19-23 August.
- Mitchell, RF**, DT Hughes, CW Luetje, JG Millar, LM Hanks, and HM Robertson. 2012. International Congress of Entomology. Daegu, South Korea, 19-25 August.
- Mitchell, RF**, DT Hughes, CW Luetje, JG Millar, HM Robertson, and LM Hanks. 2011. National Meeting, Entomol. Soc. Am. Reno, NV, 13-16 November.
- Mitchell, RF**, DT Hughes, CW Luetje, JG Millar, HM Robertson, and LM Hanks. 2011. Annual Meeting of the International Society of Chemical Ecology. Burnaby, British Columbia, Canada, 24-28 July.
- Mitchell, RF**, EE Graham, JCH Wong, BL Striman, JG Millar, and LM Hanks. 2011. North Central Branch Meeting, Entomol. Soc. Am. Minneapolis, MN, 13-16 March.
- Mitchell, RF**, HM Robertson, JG Millar, LM Hanks. 2010. North Central Branch Meeting, Entomol. Soc. Am. Louisville, KY, 14-17 March.
- Wong, JCH, **RF Mitchell**, PF Reagel, BL Striman, KP Robinson, JD Barbour, JG Millar, and LM Hanks. 2009. National Meeting, Entomol. Soc. Am. Indianapolis, IN, 13-16 December.
- Graham, EE, **RF Mitchell**, PF Reagel, and LM Hanks. 2009. National meeting, Entomol. Soc. Am. Indianapolis, IN, 13-16 December.
- Mitchell, RF**, EE Graham, PF Reagel, JG Millar, and LM Hanks. 2009. North Central Branch Meeting, Entomol. Soc. Am. St. Louis, MO, 15-18 March.
- Mitchell, RF**, EE Graham, PF Reagel, JG Millar, and LM Hanks. 2008. National meeting, Entomol. Soc. Am. Reno, NV, 16-19 November.
- Mitchell, RF**, and LM Hanks. 2008. Annual Meeting, Illinois State Acad. Sci. Champaign, IL, 4-5 April.
- Mitchell, RF** and LM Hanks. 2008. North Central Branch Meeting, Entomol. Soc. Am. Columbus, OH, 24-27 March.
- Mitchell, RF** and LM Hanks. 2007. National Meeting, Entomol. Soc. Am. San Diego, CA, 9-12 December.



**Mitchell, RF**, ML Richardson, PF Reagel, and LM Hanks. 2007. Annual Meeting, Illinois State Acad. Sci. Springfield, IL, 21-22 April.  
Richardson, ML, PF Reagel, **RF Mitchell**, and LM Hanks. 2006. National Meeting, Entomol. Soc. Am. Indianapolis, IN, 10-13 December.  
**Mitchell, RF**. 2001. Annual Meeting, South Carolina Entomol. Soc.

## CONTRIBUTED POSTERS (\* denotes student author)

---

Poeschl\*, LS, E Reading, JL Sedlock, and **RF Mitchell**. 2018. North Central Branch Meeting, Entomol. Soc. Am. Madison, WI, 15-18 March.  
Schwartz\*, AM, and **RF Mitchell**. 2016. University of Wisconsin System Symposium, Stevens Point, WI, 22 April.

## AFFILIATIONS

---

Entomological Society of America (2005-present)  
International Society of Chemical Ecology (2011-present)

## SERVICE

---

### Review:

Journal manuscripts: N= 46, *in* Agricultural and Forest Entomology; Annals of the Entomological Society of America; Austral Entomology; BMC Genomics; Bulletin of Insectology; The Canadian Entomologist; Comparative Biochemistry and Physiology D; Ecological Entomology; Entomologia Experimentalis et Applicata; Entomological Science; Environmental Entomology; Gene; The Great Lakes Entomologist; Insect Science; Invertebrate Biology; Journal of Chemical Ecology; Journal of Comparative Physiology A; Journal of Economic Entomology; Journal of Insect Behavior; Journal of Insect Physiology; Journal of Insect Science; Molecules; Naturwissenschaften; Pest Management Science; PLoS ONE; Scientific Reports; Zoology.

Grants and Awards: Deutsche Forschungsgemeinschaft; Maine Agricultural and Forest Experiment Station; National Research Development, and Innovation Office of Hungary; US-Israel Binational Agricultural Research and Development Fund; US Army Corps of Engineers.

Curriculum: STEM Achievement in Baltimore Elementary Schools.

### Professional Societies:

Webmaster, International Society of Chemical Ecology, 2012–present.  
Judge, Student oral competition, Annual Meeting, Entomol. Soc. Am., Portland, OR, 2014.  
Judge, Student poster competition, Pacific Branch Meeting, Entomol. Soc. Am. Tucson, AZ, 2014.  
Chair, Student Affairs Committee, North Central Branch, Entomol. Soc. Am, 2010–2011. Vice-Chair, 2009–2010, Student Representative, 2008–2009.

### Campus:

Committees, University of Wisconsin Oshkosh: Professional Education Council (2017-present).  
Committees, Department of Biology, UW Oshkosh: Webmaster (2017-present), Graduate (2018-present), Ad-hoc Merit (2017-2018), Ad-hoc Curriculum (2016-2017), Assessment (2016-2017), Search and Screen (2016-2017), Budget & Finance (2015-2016).

*Grant Review*, Graduate Student/Faculty Collaborative Research Grants (UWO, 2017), R. F. Chapman Graduate Student Prize (University of Arizona, 2015), Center for Insect Science Graduate Student Travel Awards (University of Arizona, 2013).  
Curator, UWO Insect Collection, UW Oshkosh. 2015-present.  
Volunteer, UWO Math Problem Solving Contest, Oshkosh, WI, 2017-2018.  
Volunteer, Webster on the Water, Webster Stanley Middle School, Oshkosh, WI, 2017.  
Judge, Student poster competition, Wisconsin Science and Technology Symposium, WySis Technology Foundation, Oshkosh, WI, 2016.  
Advisory Board member, Postdoctoral Excellence in Research and Teaching (PERT), Center for Insect Science (CIS), University of Arizona, 2013-2015.  
Webmaster, Department of Entomology, UIUC, 2006–2012.  
Outreach entomologist, Department of Entomology, UIUC. 2010-2011.  
President, University of Illinois Entomology Graduate Students Association, 2008–2010. Graduate Student Admissions Committee Representative, 2011. Secretary, 2005–2008.  
Festival Director, Insect Fear Film Festival, Department of Entomology, UIUC, 2010 and 2009. Volunteer, 2006-2008, 2011-12.  
Volunteer, BugScope (<http://bugscope.beckman.uiuc.edu/>), The Imaging Technology Group, Beckman Institute for Advanced Science and Technology, UIUC, 2009-2010.  
Volunteer, UIUC Pollinarium outreach programs, Fall 2009.

**Public:**

Media interviews, Unusual mosquito emergence in east-central Wisconsin, WBAY, WHBY, KFIZ, and AM1570, Oshkosh, WI, 17-19 September 2018.  
Media interview, “On the Water” (magazine), Lake Winnebago chironomid emergence. Interview date 10 April 2017.  
Volunteer, Wisconsin Science Festival, University of Wisconsin Oshkosh, Oshkosh, WI, 2016.  
Media interview, Lake Winnebago chironomid emergence, NBC26, Oshkosh, WI, 12 May 2016.  
Media interview, overwintering behavior of multicolored Asian lady beetle, WLUK FOX11 News, Oshkosh, WI, 22 October 2015.  
Volunteer, Arizona Insect Festival, University of Arizona, Tucson, AZ, 2012-2014.  
Media interview, 2012 Insect Fear Film Festival, Environmental Almanac, WILL-AM Radio, Champaign, IL, air date 23 February 2012. Transcript published in *The News-Gazette* 19 February 2012.  
Media interview, 2011 Insect Fear Film Festival, Environmental Almanac, WILL-AM Radio, Champaign, IL, air date 24 February 2011. Transcript published in *The News-Gazette* 20 February 2011.  
Media interview, 2010 Insect Fear Film Festival, Environmental Almanac, WILL-AM Radio, Champaign, IL, air date 25 February 2010. Transcript published in *The News-Gazette* 21 February 2010.  
Media interview, 2010 Insect Fear Film Festival, UI-7 (UIUC Television), Champaign, IL, 24 February 2010.  
Media interview, 2009 Insect Fear Film Festival, WICD, Champaign, IL, 27 February 2009.  
Media interview, 2009 Insect Fear Film Festival, Environmental Almanac, WILL-AM Radio, Champaign, IL, air date 26 February 2009. Transcript published in *The News-Gazette* 22 February 2009.  
Photo credit, “Centipede Cinema’ theme for this year’s film festival.” *The News-Gazette*, Champaign IL, 22 February 2009.  
Media interview, 2009 Insect Fear Film Festival, WCIA, Champaign, IL, 25 February 2009.  
Volunteer, National Pollinator Week in Champaign-Urbana, 2008.  
Media interview, 2008 Insect Fear Film Festival, Environmental Almanac, WILL-AM Radio and *The News-Gazette*, Champaign, IL, 17 February 2008.  
Photo credit, “Insect Fear Film Fest features social insects.” *The News-Gazette*, Champaign IL, 17 February 2008.  
Author, “What is (and isn’t) a bee?”, BeeSpotter Project, Champaign, IL (<http://beespotter.mste.uiuc.edu/topics/mimics/mimics.html>).

Media interview, 2008 Insect Fear Film Festival, Illini Radio Group (WLRW/WIXY/WCFF/WXTT), Champaign, IL, 14 February 2008.

Media interview, colony collapse disorder, WICD, Champaign, IL, 18 October 2007.

Media interview, 2007 Insect Fear Film Festival, WCIA, Champaign, IL, 21 February 2007.

Media interview, 2007 Insect Fear Film Festival, Illini Radio Group (WLRW/WIXY/WCFF/WXTT), Champaign, IL, 8 February 2007.

### **Web Design:**

International Society of Chemical Ecology, September 2012

<https://www.chemecol.org>

Department of Entomology, UIUC, March 2007 (redesign, December 2010)

<http://www.life.illinois.edu/entomology>

Department of Entomology Centennial Celebration, July 2009.

<http://www.life.illinois.edu/entomology/entcent/>

National Pollinator Week in Champaign-Urbana, March 2008.

<http://www.life.illinois.edu/entomology/pollinators/>

Lab of Dr. L. M. Hanks, UIUC, December 2008

<http://www.life.illinois.edu/hanks/>

Entomology Graduate Student Association, UIUC, September 2005.

Course: IB 109 (Insects and People), UIUC, Spring 2005.

## **MEDIA COVERAGE OF RESEARCH**

---

UW Oshkosh Today, University of Wisconsin Oshkosh. Johnson, N. "UWO biology grad student investigates beetle brain structure". 16 July 2018. <https://uwosh.edu/today/59312/uwo-biology-grad-student-investigates-beetle-brain-structure/>

UANews, University of Arizona. Jensen, M. "How longhorned beetles find Mr. Right". 27 May 2015. <https://uanews.arizona.edu/story/how-longhorned-beetles-find-mr-right>. Additionally published in EurekAlert!, ScienceDaily, Phys.org, Electronic Components News Today.

Entomology Today, Entomol. Soc. Am. (entomologytoday.org). "Pheromones Are Not Enough, Timing is Important Too". 28 May 2015.

Futurity (futurity.org). "Beetles use 'right time' cologne as come-on". 28 May 2015.

Before It's News (beforeitsnews.com). Smith, B. "Longhorned beetles use timing to find mates." 29 May 2015.

Nature World News (natureworldnews.com). Stallard, B. "Pick-up-lines: Even for beetles they're all about timing". 30 May 2015.

Arizona Public Media, "Bug brains reveal secrets of smell." 19 March 2013.