MATTHEW DAVID GINZEL
Departments of Entomology and Forestry & Natural Resources
Purdue University
901 W. State Street
West Lafayette, IN 47907

Education

Ph.D. (2003) Department of Entomology; University of Illinois at Urbana-Champaign (UIUC), Urbana, IL. Supervisor: Dr. L.M. Hanks
M.S. (1999) Department of Entomology; UIUC. Supervisor: Dr. L.M. Hanks
B.S. (1994) Department of Biology, Beloit College, Beloit, WI. Minor concentration in Environmental Studies; Graduated with Departmental Honors in Organismal Biology

Academic Appointments

2019-present Professor, Departments of Entomology (75%) and Forestry & Natural Resources (25%), HTIRC, Purdue University
2017-present Co-Director, Hardwood Tree Improvement and Regeneration Center (HTIRC), Purdue University
2012–2019 Associate Professor, Departments of Entomology (75%) and Forestry & Natural Resources (25%), HTIRC, Purdue University
2006–2012 Assistant Professor, Departments of Entomology (75%) and Forestry & Natural Resources (25%), HTIRC, Purdue University
2003–2006 Postdoctoral Research Fellow, University of Nevada-Reno, Reno, NV

Awards, Honors and Recognition

Kohls Outstanding Undergraduate Teaching Award, Fall 2018
Bravo Award, Purdue University, May 2016
College of Agriculture Research Spotlight, June 2013
Elected Full Member of Sigma Xi, Fall 2006
Elected Associate Member of Sigma Xi, the Scientific Research Society, Spring 2003
List of Teachers Ranked Outstanding by Their Students, UIUC, Spring 2000
List of Teachers Ranked Excellent by Their Students, UIUC, Fall 1995, Spring 1996, Spring 1997, Fall 1998, Fall 1999
John G. and Evelyn Hartman Heiligenstein Award for Excellence in the Teaching of Biology, UIUC, Spring 1999
DuPont Award for Outstanding Teaching by a Graduate Student in the Department of Entomology, UIUC, Spring 1998
Outstanding Teaching Assistant in Biology 120, UIUC, Spring 1997

Membership in Academic, Professional and Scholarly Societies

International Society of Chemical Ecology
Entomological Society of America
Sigma Xi, the Scientific Research Society

1. Published Work

a. Refereed Journal Articles (40 total; last author = senior author). Google Scholar: 1162 citations; H-index: 17; i10-index: 27;*Student advisee; **Other student; †Undergraduate student.

1. Williams*, G. M., and **M. D. Ginzel**. 2019. Spatial and climatic factors influence ambrosia beetle (Coleoptera: Curculiondae) abundance in intensively managed plantations of eastern black walnut. *Environmental Entomology* (in press).
2. Juzwik, J., M. Moore, G. Williams* and M. D. Ginzel. Assessment and etiology of thousand cankers disease within the native range of black walnut (*Juglans nigra*), *in* K. M. Potter and B. L. Conkline (eds.) Forest Health Monitoring: National Status, Trends, and Analysis 2019. General Technical Report SRS-xxx. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station (in press).
3. Moore, M., J. Juzwik, F. Miller, L. Roberts and **M. D. Ginzel**. 2019. Detection of *Geosmithia morbida* on numerous insect species in four eastern states. *Plant Health Progress* 20:133-139.
4. Stack*, S., C. S. Sadof and **M. D. Ginzel**. 2019. Effects of grafting on host plant resistance in ash (*Fraxinus* spp.) to emerald ash borer (*Agrilus planipennis* Fairmaire). *Agricultural and Forest Entomology* (in press) *Impact factor = 1.49*
5. Miller D. R., C. M. Crowe, **M. D. Ginzel**, C. M. Ranger and P. B. Schultz. 2018. Comparison of baited bottle and multiple-funnel traps for ambrosia beetles (Coleoptera: Curculionidae: Scolytinae) in eastern USA. *Journal of Entomological Science* 53:347-360. *Impact factor = 0.677*
6. Blood*, B. D., W. A. Klingeman, M. A. Paschen*, Đ Hadžiabdić, J. J. Couture and **M. D. Ginzel**. 2018. Behavioral Responses of *Pityophthorus juglandis* (Coleoptera: Curculionidae: Scolytinae) to Volatiles of Black Walnut and *Geosmithia morbida* (Ascomycota: Hypocreales: Bionectriaceae), the Causal Agent of Thousand Cankers Disease. *Environmental Entomology* 47:412-421. *Impact factor = 1.601*
7. Duffy**, A. G., G. P. Hughes*, **M. D. Ginzel**, and D. S. Richmond. 2018. Volatile and contact chemical cues associated with *Sphenophorus venatus* and *Sphenophorus parvulus* (Coleoptera: Dryophthoridae) host and mate-recognition behavior. *Journal of Chemical Ecology* 44:556-564. *Impact factor = 3.151*
8.

Impact factor = 1.824

9.

Impact factor = 1.824

10. Sadof, C.S, G. P. Hughes*, A. R. Witte**, D. J. Peterson**, and **M. D. Ginzel**. 2017. Tools for Staging and Managing Emerald Ash Borer in the Urban Forest. *Arboriculture and Urban Forestry* 43:1. *Impact factor = 0.653*
11. Hughes*, G. P., L. R. Meier, Y. Zou, J. G. Millar, L. M. Hanks, and **M. D. Ginzel**. 2016. Stereochemistry of fuscumol and fuscumol acetate influences attraction of longhorned beetles of the subfamily Lamiinae. *Environmental Entomology* 45: 1271-1275. *Impact factor = 1.601.*
12. Juzwik, J., M. McDermott-Kubeczko, T. J. Stewart*, and **M. D. Ginzel**. 2016. First report of *Geosmithia morbida* on ambrosia beetles emerged from thousand cankers-diseased *Juglans nigra* in Ohio. *Plant Disease* http://dx.doi/org/10.1094/PDIS-10-15-1155-PDN. *Impact factor = 3.02*
13. Hughes*, G. P., J. E. Bello, J. G. Millar, and **M. D. Ginzel**. 2015. (*R*)-methyl-branched hydrocarbons compose the contact sex pheromone of the longhorned beetle, *Neoclytus acuminatus acuminatus* (F.). *Journal of Chemical Ecology* 41: 1050-1057. *Impact factor = 3.151*
14. Peterson**, D. J., J. J. Duan, J. S. Yaninek, **M. D. Ginzel**, and C. S. Sadof. 2015. Growth of larval *Agrilus planipennis* (Coleoptera: Buprestidae) and fitness of *Tetrastichus planipennisi* (Hymenoptera: Eulophidae) in blue ash (*Fraxinus quadrangulata*) and green ash (*F. pennsylvanica*). *Environmental Entomology* 44: 1512-1521. *Impact factor = 1.601*
15. Reed, S. E., J. Juzwik, J. T. English, and **M. D. Ginzel**. 2015. Colonization of stressed eastern black walnut trees by curculionid beetles (Coleoptera: Curculionidae) in Indiana and Missouri. *Environmental Entomology* 44: 1455-1464. *Impact factor = 1.601*
16. Raje, K. R., G. P. Hughes*, A. D. Gondhalekar, **M. D. Ginzel**, and M. E. Scharf. 2015. Toxicity of turmeric extracts to the termite *Reticulitermes flavipes* (Dictyoptera: Rhinotermitidae). *Journal of Economic Entomology* 108: 1479-1485. *Impact factor = 1.824*
17. Hughes*, G. P., C. S. Sadof, and **M. D. Ginzel**. 2015. A borer-specific assessment scheme for identifying sentinel trees to delimit invasive borers in urban forests. *Arboriculture and Urban Forestry* 41(3): 125-135. *Impact factor = 0.653*
18. Juzwik, J., M. T. Banik, S. E. Reed, J. T. English, and **M. D. Ginzel**. 2015. *Geosmithia morbida* found on weevil species *Stenomimus pallidus* in Indiana. *Plant Health Progress* 16: 6-10.
19. VanDerLaan*, N. R., and **M. D. Ginzel**. 2013. The capacity of conophthorin to enhance the attraction of two *Xylosandrus* species (Coleoptera: Curculionidae: Scolytinae) to ethanol and the efficacy of verbenone as a repellent. *Agricultural and Forest Entomology* 15: 391-397. *Impact factor = 1.49*
20. Hughes*, G. P., Y. Zou, J. G. Millar, and **M. D. Ginzel**. 2013. Male-produced pheromone of the North American lamiine *Astyleiopus variegatus* (Coleoptera: Cerambycidae) is composed of (*S*)-fuscumol and (*S*)-fuscumol acetate. *Canadian Entomologist* 145: 327-332. *Impact factor = 0.857*
21. Song, M., A. C. Kim, A. J. Gorzalski, M. MacLean, S. Young, **M. D. Ginzel**, G. J. Blomquist, and C. Tittiger. 2013. Functional characterization of myrcene hydroxylases from two geographically distinct *Ips pini* populations. *Insect Biochemistry and Molecular Biology* 43: 336-343. *Impact factor = 3.362*

22. Paschen*, M. A., N. Schiff, and **M. D. Ginzel**. 2012. Role of volatile semiochemicals in the host and mate location behavior of *Mallodon dasystomus* (Coleoptera: Cerambycidae). *Journal of Insect Behavior* 25: 569-577. *Impact factor = 1.179*
23. Mitchell, R. F, E. E. Graham, J. C. H. Wong, P. F. Reagel, B. L. Striman, G. P. Hughes*, M. A. Paschen*, **M. D. Ginzel**, J. G. Millar, and L. M. Hanks. 2011. Fuscumol and fuscumol acetate are general attractants for many species of cerambycid beetles in the subfamily Lamiinae. *Entomologia Experimentalis et Applicata* 141: 71-77. *Impact factor = 1.404*
24. Hughes*, G. P., A. E. Spikes*, J. D. Holland, and **M. D. Ginzel**. 2011. Evidence for the stratification of hydrocarbons in the epicuticular wax layer of female *Megacyllene robiniae* (Coleoptera: Cerambycidae). *Chemoecology* 21:99-105. *Impact factor = 1.474*
25. Spikes*, A. E., M. A. Paschen*, J. G. Millar, J. Moreira, P. B. Hamel, N. Schiff, and **M. D. Ginzel**. 2010. First contact pheromone identified for a longhorned beetle (Coleoptera: Cerambycidae) in the subfamily Prioninae. *Journal of Chemical Ecology* 36: 943-954. *Impact factor = 3.151*
26. Murphy*, A. F., **M. D. Ginzel**, and C. H. Krupke 2010. Evaluating western corn rootworm (Coleoptera: Chrysomelidae) emergence and root damage in a seed mix refuge. *Journal of Economic Entomology* 103: 147-157. *Impact factor = 1.346*
27. Bearfield, J. C., A. G. Henry*, †, C. Tittiger, G. J. Blomquist, and **M. D. Ginzel**. 2009. Two regulatory mechanisms for monoterpenoid pheromone production in *Ips* spp. of bark beetles. *Journal of Chemical Ecology* 35: 689-697. *Impact factor = 3.151*
28. Ray, A. M., **M. D. Ginzel**, and L. M. Hanks. 2009. Male *Megacyllene robiniae* (Förster) (Coleoptera: Cerambycidae) use multiple tactics when aggressively competing for mates. *Environmental Entomology* 38: 425-432. *Impact factor = 1.315*
29. Sandstrom, P., **M. D. Ginzel**, J. C. Bearfield, W. H. Welch, G. J. Blomquist, and C. Tittiger. 2008. Myrcene hydroxylase do not determine enantiomeric composition of pheromonal ipsdienol in *Ips* spp. *Journal of Chemical Ecology* 34: 1584-1592. *Impact factor = 3.151*
30. Lacey, E. S., **M. D. Ginzel**, J. G. Millar, and L. M. Hanks. 2008. A major component of the contact sex pheromone of the cerambycid beetle *Neoclytus acuminatus acuminatus* is 7-methylheptacosane. *Physiological Entomology* 33: 209-216. *Impact factor = 1.533*
31. **Ginzel, M. D.**, J. C. Bearfield, C. I. Keeling, C. C. McCormack*, †, G. J. Blomquist, and C. Tittiger. 2007. Antennally-mediated negative feedback regulation of pheromone production in the pine engraver, *Ips pini*. *Naturwissenschaften* 94: 61-64. *Impact factor = 2.126*
32. **Ginzel, M. D.**, J. A. Moreira, A. M. Ray, J. G. Millar, and L. M. Hanks. 2006. (*Z*)-9-Nonacosene-major component of the contact sex pheromone of the beetle, *Megacyllene caryae. Journal of Chemical Ecology* 32: 435-451. *Impact factor = 3.151*
33. Ellis, J. A., A. D. Walter†, J. F. Tooker, **M. D. Ginzel**, P. F. Reagel, E. S. Lacey, A. B. Bennett, E. M. Grossman, and L. M. Hanks. 2005. An evaluation of conservation biological control in urban landscapes: Manipulating parasitoids of bagworm (Lepidoptera: Psychidae) with flowering forbs. *Biological Control* 34: 99-107. *Impact factor = 1.805*
34. **Ginzel, M. D.**, and L. M. Hanks. 2005. Role of host plant volatiles in mate location for three species of longhorned beetles. *Journal of Chemical Ecology* 31: 213-217. *Impact factor = 3.151*

35. Lacey, E. S., **M. D. Ginzel**, J. G. Millar, and L. M. Hanks. 2004. Male-produced aggregation pheromone of the cerambycid beetle *Neoclytus acuminatus acuminatus. Journal of Chemical Ecology* 30: 1493-1507. *Impact factor = 3.151*
36. **Ginzel, M. D.**, J. G. Millar, and L. M. Hanks. 2003. *Z*-9-Pentacosene: contact pheromone of the longhorned beetle *Megacyllene robiniae*. *Chemoecology* 13: 135-141. *Impact factor = 1.474*
37. **Ginzel, M. D.**, and L. M. Hanks. 2003. Contact pheromones as mate recognition cues of four species of longhorned beetles (Coleoptera: Cerambycidae). *Journal of Insect Behavior* 16: 181-187. *Impact factor = 1.179*
38. **Ginzel, M. D.**, G. J. Blomquist, J. G. Millar, and L. M. Hanks. 2003. The role of contact pheromones in mate location and recognition in *Xylotrechus colonus*. *Journal of Chemical Ecology* 29: 533-545. *Impact factor = 3.151*
39. Reagel, P. F., **M. D. Ginzel**, and L. M. Hanks. 2002. Aggregation and mate location in the red milkweed beetle (Coleoptera: Cerambycidae). *Journal of Insect Behavior* 15: 811-830. *Impact factor = 1.179*
40. **Ginzel, M. D.**, and L. M. Hanks. 2002. Evaluation of synthetic hydrocarbons for mark-recapture studies on the red milkweed beetle. *Journal of Chemical Ecology* 28: 1041-1047. *Impact factor = 3.151*

Submitted Works

1. Gula*, S. W, V. M. Lopez, A. M. Ray, S. A. Machtley, J. R. Hagler, and **M. D. Ginzel**. Protein self-marking by emerald ash borer: an evaluation of efficacy and persistence. *Entomologia Experimentalis et Applicata.* Submitted October 16, 2019.

b. Review Articles and Book Chapters

1. **Ginzel, M. D.** Chemical communication in woodboring insects, *in* J. C. Chong (ed.) Handbook of Wood Boring Insects of Ornamentals and Shrubs for the Eastern US. Entomological Society of America (*in press*).
2. Ranger, C. M. and **M. D. Ginzel**. Relationship between tree stress and attacks by woodboring beetles, *in* J. C. Chong (ed.) Handbook of Wood Boring Insects of Ornamentals and Shrubs for the Eastern US. Entomological Society of America (*in press*).
3. **Ginzel, M. D.**, and G. J. Blomquist. 2016. Insect hydrocarbons: biochemistry and chemical ecology, *in* E. Cohen (ed.) Extracellular Composite Matrices in Arthropods. Springer, New York, p. 221-252.
4. **Ginzel, M. D.** 2010. Hydrocarbons as contact pheromones of longhorned beetles (Coleoptera: Cerambycidae), *in* G. J. Blomquist and A. G. Bagnères (eds.) Insect Hydrocarbons: Biology, Biochemistry and Chemical Ecology. Cambridge Press, New York.
5. **Ginzel, M. D**. 2010. Walnut insects: ecology and control, *in* D. Pimental (ed.) Encyclopedia of Pest Management. Taylor and Francis, NewYork.

2. Research Presentations

a. Invited Conference and Symposium Presentations Since 2012; career total = 44

1. Ginzel, M. D. "Etiology of Thousand Cankers Disease in the eastern US." North Central Forest Pest Workshop. Morton Arboretum, Lyle, IL, September, 2019.
2. Ginzel, M. D. and C. S. Sadof. "Monitoring ash (*Fraxinus*) decline and managing emerald ash borer in cities." Symposium: Invasion ecology, population dynamics and sustainable management of the Emerald Ash Borer. Entomological Society of America 66th Annual Meeting. Vancouver, British Columbia, Canada, November, 2018.
3. Ginzel, M. D. "Enhanced detection of *Pityophthrus judlandis* – the insect vector of Thousand Cankers Disease." North Central IPM Stakeholders Panel, Urbana, IL, September 2018.
4. Ginzel, M. D. "Etiology of thousand cankers disease in the eastern U.S." 29th USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 2018.
5. Ginzel, M. D., B. L. Blood, M. A. Paschen, Đ Hadžiabdić, J. Juzwik, J. J. Couture, W. E. Klingeman. "Behavioral responses of *Pityophthorus juglandis* (Coleoptera: Curculionidae: Scolytinae) to volatiles of black walnut and *Geosmithia morbida*, the causal agent of Thousand Cankers Disease." Symposium: Interactions of bark and ambrosia beetles with their fungal symbionts and näive hosts: exploring biological, ecological, and physiological vulnerabilities. Entomological Society of America 65th Annual Meeting, Denver, CO, November 2017.
6. Stewart, T. J., M. McDermott, J. J. Juzwik, and M. D. Ginzel. "Thousand cankers disease: Scolytine beetles and associated fungal pathogens recovered from symptomatic eastern black walnut (*Juglans nigra*)." invited poster, Symposium: Interactions of bark and ambrosia beetles with their fungal symbionts and näive hosts: exploring biological, ecological, and physiological vulnerabilities. Entomological Society of America 65th Annual Meeting, Denver, CO, November 2017.
7. Hughes, G. P., and M. D. Ginzel. "Identification of pheromone biosynthetic genes in the longhorned beetle, *Neoclytus mucronatus mucronatus* (F.) (Coleoptera: Cerambycidae) using a differential gene expression approach." Symposium: Chemical ecology of cerambyid beetles: basic science and pratical applications. Entomological Society of America 65th Annual Meeting, Denver, CO, November 2017.
8. Ginzel, M. D. "Behavioral responses of *Pityophthorus juglandis* (Coleoptera: Curculionidae: Scolytinae) to volatiles of black walnut and *Geosmithia morbida*, the causal agent of Thousand Cankers Disease." Thousand Cankers Disease Research and Management Operational Meeting, Lafayette, IN, June 2017.
9. Ginzel, M. D. "Integrated Pest Management of Thousand Cankers Disease in Black Walnut Plantations." Thousand Cankers Disease Research and Management Operational Meeting, Lafayette, IN, June 2017.
10. Ginzel, M. D., G. P. Hughes, A. Witte, D. Peterson and C. S. Sadof. "Tools for staging and managing emerald ash borer in urban forests". Symposium: Forest Entomology, Annual Meeting of the North Central Branch of Entomological Society of America, May 2017.
11. Ginzel, M. D. "Etiology of thousand cankers disease in the eastern US". Central Plant Board Annual Meeting, Indianapolis, IN, April 2017.

12. Ginzel, M. D. “Thousand cankers disease and threat to eastern black walnut.” National Walnut Council Annual Meeting. Lawrenceburg, IN, August 2016.
13. Ginzel, M. D., B. L. Blood, T. J. Stewart, W. E. Klingeman and J. Juzwik. “Etiology of Thousand Cankers Disease in eastern black walnut and enhanced detection of the insect vector.” Hardwood Tree Improvement and Regeneration Center Annual Meeting. West Lafayette, IN, October 2015.
14. Hughes, G. P., and M. D. Ginzel. “Chirality and contact chemoreception in the longhorned beetles (Coleoptera: Cerambycidae).” Symposium: Forest Entomology. North Central Branch Meeting of the Entomological Society of America, Manhattan, KS, June 2015.
15. Juzwik, J., S. E. Reed, M. D. Ginzel, M. McDermott-Kubeczko, M. Banik, and W. E. Klingeman. “Elucidating the roles of multiple biotic agents in the development of thousand cankers disease within the native range of *Juglans nigra.*” 26th USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 2015.
16. Hughes, G. P., and M. D. Ginzel. “Pheromone biosynthesis in the Cerambycinae (Coleoptera: Cerambycidae).” Symposium: Chemical Communication in the Longhorned Beetles. Annual meeting of the Entomological Society of America, Portland, OR, November 2014.
17. Kolich, L. A., and M. D. Ginzel. “Towards developing ash varieties resistant to emerald ash borer: Influence of Asian rootstocks on leaf volatiles of grafted North American ash species”, invited poster, Symposium: Challenges in Managing Emerald Ash Borer. Annual meeting of the Entomological Society of America, Portland, OR, November
18. Ginzel, M. D. “Thousand cankers disease in walnut” Indiana Society of American Foresters Spring meeting, Martinsville, IN, April, 2014.
19. Paschen, M. A., W. E. Klingeman, and M. D. Ginzel. “Thousand cankers disease: Walnut twig beetle attraction to volatile organic compounds emanating from *Juglans nigra* and *Geosmithia morbida*.” Hardwood Tree Improvement and Regeneration Center Advisory Committee field tour. West Lafayette, IN, March 2014.
20. Ginzel, M. D., G. P. Hughes, M. A. Paschen, J. G. Millar, and N. Schiff. “Role of host volatiles and pheromones in the mating system of *Mallodon dasystomus* (Coleoptera: Cerambycidae).” Symposium: Chemical Ecology of Cerambycid Beetles. Annual Meeting of the Entomological Society of America, Knoxville, TN, November 2012.
21. VanDerLaan N. R., and M. D. Ginzel “Insects that attack black cherry (*Prunus serotina*).” Hardwood Tree Improvement and Regeneration Center Annual Meeting. West Lafayette, IN, April 2012.
22. VanDerLaan N. R., and M. D. Ginzel. “Insects damaging Hoosier hardwoods.” Indiana Society of American Foresters Spring Meeting. Indianapolis, IN, March 2012.

b. Invited Lectures Since 2012; career total = 16

1. Ginzel, M. D. ““Behavior and management of walnut twig beetle, the insect vector of Thousand Cankers Disease of walnut.” Purdue Northwest, Calumet, IN, February 2019.
2. Ginzel, M. D. “Regulatory implication of TCD within the native range of black walnut.” Central Plant Board Annual Meeting, Oglesby, IL, April 2018.

3. Ginzel, M. D. “Thousand Cankers Disease: Outlook and Management”, Central Plant Board, Indianapolis, IN April 2017.
4. Ginzel, M. D. “Etiology of Thousand Cankers Disease within the native range of black walnut and enhanced detection of the insect vector”, Department of Entomology, Purdue University, February 2016.
5. Ginzel, M. D. “Thousand Cankers Disease: Enhanced detection of the insect vector and etiology of the disease within the native range of black walnut”, Department of Entomology, The Ohio State University, Wooster, OH, October 2015.
6. Ginzel, M. D. “Chirality in the chemical communication of longhorned beetles (Coleoptera: Cerambycidae)” Department of Entomology, University of Arkansas, Fayetteville, AR, February 2015.
7. Ginzel, M. D. “Walnut twig beetle and Thousand Cankers Disease”, EAB-University Webinar, October 2105.
8. Ginzel, M. D. “The use of semiochemicals to detect and monitor invasive ambrosia beetles (Coleoptera: Curculionidae: Scolytinae) in hardwood forests.” EAB-University Webinar, April 2014.
9. Ginzel, M. D. “Thousand cankers disease in walnut.” Indiana Society of American Foresters, Martinsville, IN, April 2014.
10. Ginzel, M. D. “Thousand cankers disease: Influence of girdling on volatile organic compounds released from black walnut genotypes.” Thousand Cankers Disease Webinar, U.S. Forest Service, May 2013.
11. Ginzel, M. D. “Role of semiochemicals in the colonization behavior of woodboring beetles affecting native hardwoods.” Department of Biology, Xavier University, Cincinnati, OH, March 2013.

c. Contributed Talks Since 2012

3. Advising and Mentoring

Current Graduate Student Advisees

Ph.D. Students

Ethington, Matthew (ENTM) expected graduation May 2020
Geoff, Williams (FNR), expected graduation 2021. Van Eck Scholar
Tobin, Kelsey (FNR); expected graduation May 2023. Ross Fellowship
Gula, Scott (FNR), co-advised with John Couture (FNR/ENTM); expected graduation 2023

Past Post-doctoral Scholar

Holly Wantuch, 2018-2019 (FNR); Virginia Tech University (advisor: Scott Salom); current position: Entomologist, Integrated Pest Prevention and Management Program, Oregon Department of Agriculture.

Past Graduate Student Advisees

Ph.D. Student

Hughes, Gabriel P. 2016. "The influence of chirality on the behavioral resposnses of longhorned beetles (Coleoptera: Cerambycidae) to volatile and contact pheromones". Current position: Postdoctoral Research Fellow with Ring Cardé at the University of California, Riverside. (published dissertation research in no. 8, 10, 14, and 17; co-author on no. 7 and 13)

Murphy, Alexzandra F. 2011. "Changing landscapes: Effects of varying refuge structure on the behavioral ecology of western corn rootworm, *Diabrotica virgifera virgifera* LeConte." Co-advised with Christian Krupke. Current position: Precision Agriculture Instructure and Coordinator, Blue Mountain Community College, Pendleton, OR. (published dissertation research in no. 23)

Master's Students

Gula, Scott. 2019. "Protein self-marking by emerald ash borer: an evaluation of efficacy and persistence. Remained for PhD.

Stack, Sara C. 2018. "Influence of Manchurian rootstock in grafting for emerald ash borer resistance in North American ash." Co-advised with Cliff Sadof. Current position: Research technician, USDA-APHIS EAB Biological Rearing Laboratory, Brighton, MI. (published thesis research in no. 1)

Blood, Bridget L. 2016. "Behavioral responses of *Pityopththorus juglandis* to volatiles of walnut and *Geosmithia morbida*, the causal agent of thousand cankers disease." Current position: PhD student with Geoff Wang in Department of Forestry and Environmental Conservation at Clemson University. (published thesis research in no. 3)

Kolich, Lindsay A. 2014. "Toward the development of ash varieties resistant to Emerald Ash Borer." Current position: Plant Industry Field Scientist, Michigan Department of Agriculture & Rural Development, Jackson, MI.

VanDerLaan, Nicole R. 2013. "Chemically-mediated host colonization and mating behavior of bark and ambrosia beetles (Coleoptera: Curculionidae: Scolytinae) affecting native hardwoods." Current position: Quality Assurance Specialist, Indiana Department of Environmental Management, Indianapolis, IN. (published thesis research in no. 16)

Paschen, Matthew A. 2011. "Role of host plant volatile and female pheromone in the mating system of *Mallodon dasystomus* (Say) (Coleoptera: Cerambycidae)." Current position: Farmer, Paschen Farms, Inc., Twelve Mile, IN; Plant health specialist, Springcreek Landscaping and Nursery, Logansport, IN. (published thesis research in no. 19; co-author on no. 3, 20 and 22)

Hughes, Gabriel P. 2011. "Insights into the chemically-mediated signaling strategies of the longhorned beetles (*Coleoptera: Cerambycidae*)." Remained for PhD (published thesis research in no. 21; co-author on no. 20)

Spikes, Annie E. 2009. "Chemically-mediated mate location and recognition of the primitive longhorned beetle *Mallodon dasystomus*." Current position: Assistant Entomologist of the Bayer Crop Science Insectarium, North Carolina Museum of Life and Science, Raleigh, NC. (published thesis research in no. 22; co-author on 21)

Visiting Scholars
Aziz Ebrahimi (FNR; HTIRC), 2015-2016
Dave Jennings (ENTM), 2016-2017

Graduate Student Committees

Master's Committees

Meghan Mulroy (FNR)	2016-present
Garrett Price (ENTM)	2015–2018
Alexandra Duffy (ENTM)	2014–2016
Tim Luttermoser (ENTM)	2013–2016
Elizabeth Rowen (ENTM)	2012–2015
Donnie Peterson (ENTM)	2012–2014
Dan Martin (ENTM)	2012–2014
Joseph Braasch (ENTM)	2010–2012
John Shorter (ENTM)	2009–2011
Carolyn Foley (ENTM)	2006–2008

Ph.D. Committees

Brandon Quinby (FNR)	2017-present
Aaron Ashbrook (ENTM)	2017-present
Christie Shee (ENTM)	2017-present
Crystal Klem (ENTM)	2015–present
Kirsten Rowe (ENTM)	2016–2018
Mary Rushton (ENTM)	2014–2018
Junhyung Lee (FNR)	2013–2018
Melissa Johnson (FNR)	2013–2016
Ying Wang (FNR)	2010–2014
Darla G. French (PULSe)	2007–2012
Gloria Geraldo (ENTM)	2007–2012

Preliminary Exam Committee
Brandon Quinby (FNR)
Mary Rushton (ENTM)
Brittany Peterson (ENTM/PULSe)
Gabriel Hughes (ENTM)
Ying Wang (FNR)
Darla French (ENTM)
Gloria Geraldo (ENTM)
Alex Murphy (ENTM)

Non-Purdue Committees
Joseph Wong, Ph.D. candidate. Department of Entomology, University of Illinois and Urbana-Champaign (UIUC; graduated 2017)
Linnea Meier, M.S., Department of Entomology, UIUC (graduated 2015)
Christina Silliman, M.S., Department of Entomology, UIUC (graduated 2014)
Robert Mitchell, Ph.D., "Chemical communication in cerambycid beetles and the molecular basis of olfaction" Department of Entomology, UIUC (graduated 2012)
Elizabeth Graham, Ph.D., "Host plant relationships and chemical communication in the Cerambycidae" Department of Entomology, UIUC (graduated 2010)
Annie Ray, Ph.D., "Evolution and taxonomic distribution of volatile pheromones in cerambycine longhorned beetles" Department of Entomology, UIUC (graduated 2009)

Graduate Student Awards, Honors, and Achievements

Student	Year	Award, Honor, Achievement
Current Students		
Matthew Ethington	2018	D. Woods Thomas Memorial Fund Recipient ($1000)
	2017	
	2017	1st place presentation (Ph.D.), Annual Meeting of the North Central Branch of the Entomological Society of America
	2016	1st place presentation (PhD), Ohio Valley Entomological Association
Geoffrey Williams	2019	Phytobiomes poster prize, Plant Heath Meeting 2019
	2018	Purdue Graduate Student Government Travel Grant ($250)
	2017	Fred M. vanEck Scholar, HTIRC, Purdue University
Scott Gula	2019	1st place poster, Society of American Foresters Annual Meeting
	2017	2nd place Student Debate Competition, Entomology Society of America
	2017	2nd place 36th Annual Linnean Games, North Central Branch of the Entomological Society of America
Past Students		
Gabriel Hughes	2016	2nd place Student Debate Competition, 25th International Congress of Entomology.
	2015	USDA NIFA-AFRI Predoctoral Fellowship ($39,500)
	2015	Purdue University Department of Entomology Outstanding PhD Student Award
	2015	2nd place presentation (Ph.D.), Annual Meeting of the Entomological Society of America
	2015	2nd place Linnaean Games competition, Annual Meeting of the North Central Branch of the Entomological Society of America (Team Captain)
	2015	J. T. Eaton and Company Scholarship
	2014	William L. Brehm Memorial Scholarship
	2013	1st place presentation (Ph.D.), Ohio Valley Entomological Association
	2011	3rd place presentation (M.S.) Annual Meeting of the North Central Branch of the Entomological Society of America
	2010	3rd place presentation (M.S.), Ohio Valley Entomological Association
	2009	3rd place presentation (M.S.), Ohio Valley Entomological Association
Bridget Blood	2016	2nd place Student Debate Competition, 25th International Congress of Entomology.
	2015	3rd place presentation (M.S.), Annual Meeting of the North Central Branch of the Entomological Society of America

	2015	North Central Branch of ESA Student Travel Grant
	2015	2nd place Linnaean Games competition, Annual Meeting of the North Central Branch of the Entomological Society of America
	2015	Excellence in Urban Forestry Student Award
	2015	Purdue Graduate Student Government Travel Grant
	2015	Gerald Leeb Memorial Scholarship
	2014	J. T. Eaton and Company Scholarship
	2014	3rd place presentation (M.S.), Ohio Valley Entomological Association
Tyler Stewart	2016	2nd place Student Debate Competition, 25th International Congress of Entomology
	2016	3rd place presentation (M.S.), Annual Meeting of the North Central Branch of the Entomological Society of America
Sara Stack	2017	2nd place Student Debate Competition, Entomology Society of America
	2016	2nd place Student Debate Competition, 25th International Congress of Entomology
	2016	National Pest Management Scholarship
Nicole VanDerLaan	2012	1st place presentation (M.S.), Ohio Valley Entomological Association
	2012	Honorable mention, Sigma Xi Poster Competition
	2012	2nd place poster (M.S.), FNR Graduate Research Symposium
	2011	1st place presentation, Annual Meeting of the Entomological Society of America
	2011	3rd place presentation (M.S.), Ohio Valley Entomological Association
	2011	1st place poster (M.S.), FNR Graduate Research Symposium
	2010	3rd place presentation (M.S.), Ohio Valley Entomological Association
Lindsay Kolich	2012	1st place presentation (M.S.), Annual Meeting of the Entomological Society of America
Alex Murphy	2010	Purdue University Department of Entomology Outstanding PhD Student Award
	2009	Stark's Award for Plant Resistance
	2008	1st place presentation (Ph.D.), Ohio Valley Entomological Association
Matthew Paschen	2009	1st place presentation (M.S.), Ohio Valley Entomological Association
Annie Spikes	2009	1st place poster, Sigma Xi Graduate Student Competition
	2008	1st place presentation (M.S.), Ohio Valley Entomological Association
	2008	1st place presentation (M.S.), Annual Meeting of the North Central Branch of the Entomological Society of America

4. Undergraduate Students Advised

a. Research Mentoring

Purdue University

Student	Year(s)	Project title
Sean Tormoehlen	2014-2016	Seasonal flight activity of scolytine beetles associated with black walnut (ENTM Capstone)
Hannah Quellhorst	2015	Molecular Agriculture Summer Institutes, Purdue University. Chemical signaling in the peach bark beetle, *Phloeotribus liminaris*
Benjamin Savage	2014	Molecular Agriculture Summer Institutes, Purdue University. Use of plant volatiles to attract natural enemies of woodboring insect pests of black walnut (*Juglans nigra)*
Brooke Richards	2013-2014	Influence of rootstock on herbivory by emerald ash borer (*Agrilus planipennis* Fairmaire) on grafted native and Asian ash species (ENTM Capstone)
Chelsea Wood	2012-2013	Geranyl acetone, a pheromone component of *Hedypathes betulinus* (Klug) (Coleoptera: Cerambycidae), attracts North American lamiines (ENTM Capstone)
Gary Frazier	2010-2011	Response of predaceous checkered beetles (Coleoptera: Cleridae) to pheromone components of longhorned beetles (ENTM Capstone)
Nicole VanDerLaan	2009-2010	Chemically-mediated host colonization behavior of the peach bark beetle
Matthew Paschen	2008	Evaluation of a commercially-available pheromone lure as a generic attractant to longhorned beetles
Jonathan Larson	2007	A scanning electron microscopy investigation of male and female *Agrilus planipennis* and other *Agrilus* spp. cuticle for pheromone producing glands

b. Undergraduate Student Awards, Honors, and Achievements

Student	Year	Award, Honor, or Achievement
Hannah Quellhorst	2015	1st place presentation (B.S.), Annual Forum of the Ohio Valley Entomological Association
	2015	Molecular Agriculture Summer Internship
Benjamin Savage	2014	Molecular Agriculture Summer Internship
Nicole VanDerLaan	2010	Dean's Choice Award, Purdue Research and Poster Symposium
	2010	Department of Entomology Outstanding Senior Award
	2009	Purdue Summer Undergraduate Research Fellowship
	2009	Purdue Discovery Park Undergraduate Research Internship
	2009	1st place presentation (undergraduate) Ohio Valley Entomological Association

Matthew Paschen	2008	3rd place presentation (undergraduate) Ohio Valley Entomological Association
Anastasia Henry	2006	Department of Biochemistry Outstanding Senior Award
	2005	National Science Foundation EPSCoR research grant

5. Research Grants and Awards

Summary Table of Dr. Ginzel's Total Research Funding:

Type of Funding	Total Amount	Direct Amount as PI or Co-PI
Competitive (External)	$1,974,104	$1,098,340
Competitive (Internal)	215,336	132,976
Other (foundations, USDA-Forest Service)	1,072,949	1,006,949
	$3,147,928	$2,238,265

6. Other Evidence of National and International Recognition

Symposium Chairperson

"Interactions of Bark and Ambrosia Beetles with their Fungal Symbionts and Näive Hosts: Exploiting Biological, Ecological and Physiological Vulnerablities." 65th Annual Meeting of ESA, Denver, CO, November 2017, Co-Chair: C. Ranger Co-Chair: C. Ranger (11 invited speakers and 13 invited posters; speakers representing Italy, Japan, Germany and USA).

"Chemical Communication in the Longhorned Beetles." 62nd Annual Meeting of the ESA, Portland, OR, November 2014. Co-Chairs: R. Mitchell and E. E. Graham (11 invited speakers representing Canada, England, China and USA).

"Chemical Ecology of Cerambycid Beetles." 60th Annual Meeting of the ESA, Knoxville, TN, November 2012. Co-Chairs: A. M. Ray and E. E. Graham (11 invited speakers from Canada and USA).

"Semiochemistry of the Cerambycidae: a diversity of signaling strategies." 58th Annual Meeting of the ESA, San Diego, CA, December 2010. Co-Chairs: A. M. Ray and J. D. Barbour (13 invited speakers representing Canada, China, Japan, Venezuela and USA).

Meetings Organized

HTIRC Advisory Committee Meeting, West Lafayette, IN October 2017. Co-organizers: L. Jackson, L. Farlee and M. Coggeschall.

Thousand Cankers Disease Research and Management Operational Meeting. Lafayette, IN, June 2017. Co-organizers: L. Jackson, P. Marshall, J. Juzwik, D. Kenny, B. Moltzan (30 invited speakers and poster session).

Steering Committee Member, North American Forest Insect Work Conference, Portland, OR, May 2011.

Editorial Activities

Environmental Entomology (Editorial Board Member and Subject Editor: Behavior; 2017-present): appointed two associate editors: Ann Ray (Xavier University) and Vanessa Lopez (USDA-Forest Service).

PLoS ONE (Academic Editor; 2018-present).

Journal Reviews (N=86)

Agricultural and Forest Entomology, Annals of the Entomological Society of America, Annual Review of Entomology, Aquatic Biology, Biological Control, Canadian Entomologist, Canadian Journal of Forest Research, Chemoecology, Ecosphere, Entomologia Experimentalis et Applicata, Environmental Entomology, Great Lakes Entomologist, HortTech, Insect Science, JEZ Part B: Molecular and Developmental Evolution, Forest Ecosystems, Journal of Chemical Ecology, Journal of Economic Entomology, Journal of Entomological Science, Journal of Insect Biology, Journal of Insect Behavior, Journal of Insect Physiology, Naturwissenschaften, PLoS One, Psych, Proceedings of the National Academy of Sciences, Scientific Reports

Grant Panel Activities (career total = 7)

- American Association for the Advancement of Science, King Abdulaziz City for Science and Technology (KACST), July-August 2012 (lead reviewer of two proposals); March 2013 (lead reviewer of two proposals); October 2013 (lead reviewer of one proposal); April 2014 (lead reviewer of two proposals); October 2014 (lead reviewer of two proposals); March 2105 (lead reviewer of two proposals).

Proposal Reviews

- American Association for the Advancement of Science, King Abdulaziz City for Science and Technology (KACST), July-August 2012 (lead reviewer of two proposals); March 2013 (lead reviewer of two proposals); October 2013 (lead reviewer of one proposal); April 2014 (lead reviewer of two proposals); October 2014 (lead reviewer of two proposals); March 2105 (lead reviewer of two proposals).
- USDA-NIFA; Small Business Innovation Research Program, February 2014, 2018.
- National Science Foundation, Population and Evolutionary Processes cluster: 2006-2008.
- USDA-ARS Crop Protection and Pest Control Research Unit research project plan, July 2007.

Prepublication reviews

Yalçin C., G. Bari, P. Vernile, O. Panzarino, C. Zambonin, A. Aresta, and E. de Lillo. 2012. "Role of the pronotum on the intraspecific interactions of *Capnodis tenebrionis* (L.) (Coleoptera: Buprestidae) adults"

Hanks, L. M., and Wang Q. 2016. "Reproductive biology of Cerambycidae"

7. Evidence of International Involvement

- Organized four international symposia with invited speakers representing Argentina, Brazil, Canada, China, England, Germany, Italy, Japan, Venezuela.
- Invited to evaluate King Abdulaziz City for Science and Technology (KACST; the Saudi national science agency)-AAAS Research Competitiveness Program proposals; six panels and lead review for 11 proposals since 2012.
- Invited by and collaborated with Anne-Genevieve Bagnères (co-editor) at the Institute for Research on Insect Biology at the University of Tours, France to publish book chapter on insect hydrocarbons.
- Invited by and collaborated with Efraim Cohen, Department of Entomology, The Hebrew University of Jerusalem to publish book chapter on the biochemistry and chemical ecology of insect hydrocarbons.
- Co-authored manuscripts with colleagues in Canada, Germany and Sweden.
- Invited international PhD examiner (University of Agriculture Faisalabad, Pakistan).
- Provided prepublication review and consultation with Enrico de Lillo, Department of Soil, Plant, and Food Sciences, University of Bari Aldo Moro, Bari, Italy on hydrocarbons of buprestid beetles.
- Presented research at international meetings in foreign countries including Canada, Spain and Sweden.
- Hosted visiting scholars from Iran and England.
- A majority of peer review and editorial activities are associated with foreign authors and institutions.

Dr. Ginzel's international impact can also be measured by the source of his citations by continent – over 42% of publications citing his work come from outside the United States (Web of Science).

B. LEARNING (Secondary Area)

1. Publications

Ginzel, M. D. 2010. Olfactory Signals, *in* M. Breed and J. Moore (eds.) Encyclopedia of Animal Behavior. Elsevier Ltd., Oxford, UK.

2. Presentations

Ginzel, M. D. "Insect biology curriculum revision", College of Agriculture Dean's Visit (ENTM), March 2018.

Stamper, T., P. Dunn, M. Ginzel, J. Holland, J. Neal, C. Oseto and D. Richmond. "Building a 21st century outcome-based insect biology curriculum." North American College Teachers Association Annual Conference, June 2017.

Ginzel, M. D. and D. S. Richmond. "Insect biology curriculum revision and recruitment program." Purdue University College of Agriculture Academic Council, May 2017.

3. Courses Taught/Administered (Since 2012)

Dr. Ginzel has taught the following courses at Purdue University since 2012:

Insect Biology and Societal Grand Challenges (ENTM 101; 1 credit)
This is the first course in the new Insect Biology curriculum. In this one-credit undergraduate course students learn to appreciate the scope of societal grand challenges; understand and demonstrate where Insect Biology and grand challenges intersect; evaluate and critique popular literature and media surrounding these issues; Identify gaps in our current knowledge and understand future needs.

Insect Behavior (ENTM 201; 3 credits)
After completing this course, students will have gained an understanding of insect behavior, largely from a natural history perspective. This course is required for entomology majors, but is appropriate for students with any science background and an interest in insects and behavior. Students will learn how insects adjust to and interact with their environment. This class is designed as a student-centered learning environment and students are highly encouraged and required to participate in class discussion and other learning activities.

Forest Entomology (ENTM 441 and FNR 441; 3 credits)
An introduction to the identity, natural history and management of insects affecting forest ecosystems. This course focuses on the biodiversity, natural history and ecology of forest pests; forecasting and assessing the risk of insect outbreaks; and silvicultural, biological and chemical strategies for preventing and managing insect pests. Dr. Ginzel recently recast this course around two broad global issues: invasive species and climate change. This redesign has served as a model for how current ENTM courses could be restructured to better serve the new Insect Biology curriculum.

Advanced Insect Behavior (ENTM 615; 3 credits)
A graduate level course that provides training in current concepts and methods of insect behavioral research. Emphasis is placed on understanding fundamental concepts that ultimately define insect behavior. Students explore external and internal processes that dictate insect behavior, and understand how the behavior of an insect relates to its environment and other organisms. Students evaluate and critique primary literature and also thoroughly review research in a specific area of insect behavior.

Insect Chemical Ecology (ENTM 692; 1 credit)
Chemical ecology is a field of study that deals with the intriguing chemical mechanisms that help control intra- and interspecific interactions among living beings. In this one-credit graduate level course, we discuss and analyze the primary literature to explore the structure, origin, and function of chemical signals that mediate intra- and interspecific interactions among organisms ranging from prokaryotes to humans. In addition, students receive hands-on training using state-of-the-art tools for collecting and identifying semiochemicals (e.g., volatile collection and electroantennogram detection).

Contributions in Course and Curriculum Development

- Served on ENTM Undergraduate Teaching and Curriculum (T&C) Committee to develop new Insect Biology Curriculum (2012-present).

4. Preparation of Instructional Materials

Prepared statement of course objectives and lecture and laboratory material for Forest Entomology, Advanced Insect Behavior, Chemical Ecology and Insect Biology and Societal Grand Challenges courses.

5. Evidence of Impact on Students

Summary of Dr. Ginzel's Course Evaluations Since 2012

Students evaluating courses at Purdue University have the option to submit electronic evaluations of the course and instructor. Student ratings since Dr. Ginzel's promotion to Associate Professor are summarized in the following table:

Course	Year	Semester	Level	Enrollment	Q1	Q2
ENTM 101	2018	Fall	Undergrad	13	4.7	4.9
	2017	Fall	Undergrad	28	4.3	4.6
ENTM 201	2019	Spring	Undergrad	50	4.8	4.9
ENTM/FNR 441	2011	Fall	Undergrad	8	4.8	5.0
	2013	Fall		21	4.6	4.6
	2015	Fall		14	4.3	4.8
	2017	Fall		23	4.2	4.7
ENTM 615	2012	Spring	Grad	9	4.8	4.8
	2014	Spring		13	3.9	4.2
	2016	Spring		7	4.3	4.2
	2018	Spring		15	3.7	4.3
ENTM 692	2014	Fall	Grad	14	4.7	4.7
				Average:	4.4	4.6

Q1: Overall, I would rate this course as? (1=very poor, 5=outstanding)
Q2: Overall, I would rate this instructor as?

6. Guest Lectures (Since 2012; career total = 12

Silviculture (FNR337), Forest IPM, Purdue University, November 2018.

Insect Biochemistry and Physiology (ENTM 531) entitled "Insect Pheromones", Purdue University, October 2012, March 2014.

Fundamentals of Pest Management entitled "Forest IPM", UIUC, October 2013, 2015, 2017, 2018.

C. ENGAGEMENT (Tertiary Area, no formal appointment)

1. Engagement Publications (Since 2012; career total = 11)

Marshall, P., V. Burkle, M. D. Ginzel, G. Ruhl, and T. Creswell. 2017. Thousand Cankers Disease: Indiana walnut trees threatened. Purdue University Cooperative Extension Service (IN-478-W).

Blood, B. L, and M. D. Ginzel. 2015. Thousand cankers disease and black walnut in Indiana. *Indiana Woodland Steward* 24(2): 12-13.

Ginzel, M. D., and J. Juzwik. 2014. *Geosmithia morbida*, the Causal Agent of Thousand Cankers Disease, Found in Indiana. Purdue University Cooperative Extension Service (HN-89-W).

Marshall, P., V. Burkle, M. D. Ginzel, and A. Nagle. 2012. The Indiana quarantine for Thousand Cankers Disease (TCD) of black walnut trees. Indiana Department of Natural Resources and Purdue University.

Marshall, P., M. McDonough, M. D. Ginzel, and J. Ellis. 2011. The Indiana quarantine for Thousand Cankers Disease (TCD) of black walnut trees. Indiana Department of Natural Resources and Purdue University.

2. Principal Conferences, Schools, Workshops, Short Courses, and Other Organized Educational Activities (Since 2012; career total = 14)

Invited presentation, Ginzel, M. D. "Threat of Thousand Cankers Disease to Indiana", Indiana Society of American Foresters Forest Pesticide Training Program, Danville, IN, November 2017.

Invited presentation, Ginzel, M. D. "Thousand Cankers Disease: outlook and management", Ohio Department of Forestry, Jackson, OH, April 2017.

Invited presentation, Ginzel, M. D. "Thousand Cankers Disease of Walnut", U.S. Forest Service Eastern Region Forest Health Update, June 2016.

Invited presentation, Ginzel, M. D. "Thousand Cankers Disease: Cause, symptoms, distribution and management", 2016 Ohio River Valley Woodland and Wildlife Workshop, Clifty Falls State Park, Madison, IN, April 2016.

Invited presentation, Ginzel, M. D. "Thousand Cankers Disease", 2015 Indiana Society of American Foresters Forest Pesticide Training Program, Greenfield, IN, December 2015.

Invited presentation, Ginzel, M. D. "Thousand Cankers Disease: enhanced detection of the insect vector and etiology of the disease within the native range of black walnut", Southwest Ohio Urban Forestry Conference, Waynesville, OH, September 2015.

Invited presentation, Ginzel, M. D. "Managing Emerald Ash Borer in urban landscapes", Purdue University Turf and Landscape Field Day", West Lafayette, IN, July 2015.

Invited presentation, Ginzel, M. D. "Emerald ash borer management update", Purdue Extension-Marion County Annual Spring Garden Clinic, Indianapolis, IN, March 2015.

Invited presentation, Ginzel, M. D. "Thousand cankers disease and *Geosmithia morbida* in Indiana." Indiana Society of American Foresters Pesticide Training Program, Greenfield, IN, November 2014.

Invited presentation, Paschen, M. A., W. Klingeman, and M. D. Ginzel. "Thousand cankers disease: Walnut twig beetle attraction to volatile organic compounds emanating from

Juglans nigra and *Geosmithia morbida*." Hardwood Tree Improvement and Regeneration Center Advisory Committee field tour. West Lafayette, IN March 27, 2014.
Key Listener/Discussion Leader, Thousand Cankers Disease: Methods and Research and Technology Development Needs Assessment Workshop, Lafayette, IN, April 2012.

3. **Professional Service** (Since 2012)

Purdue University
Member, Student Affairs Committee (SAC), Fall 2015-2016.
Representative of SAC on Purdue Student Government, Fall 2015-2016.
Ally and member, Purdue University Safe Zone, Fall 2014-present.
Senator, University Senate, Fall 2010-present.
Judge, Preliminary rounds of "three-minute thesis" competition; Graduate College, Purdue University, April 2013.

College of Agriculture
Chair of Entomology Search Committee, Center for Molecular Agriculture Search, Fall 2015-2017.
Reviewer, AgSEED grant program, Fall 2014, Fall 2015, Fall 2017, Fall 2018
Coach, Purdue Student Soybean Product Innovation Competition; 2013-2016.

- Team Sparked by Soy (2016); Evan Anderson, Ag Eng; Sara Richert, Ag Eng; Dylan Lowden, Env. & Health Sciences; People's Choice Award ($500).
- Team SoySniffs (2015) Evan Anderson, Ag Eng; Sean Anderson, FNR; Sara Richert, Ag Eng; First Place in competition ($20,000).
- Team Soots (2014); Evan Anderson, Ag Eng; Sean Anderson, FNR; Sara Richert, Ag Eng; Runner up in competition ($10,000).

Charter member, Allies and Advocates Committee, NSF Advance, 2013-present.
Coach, Leadership Development Certification Committee, Fall 2012-present.

Department of Entomology/FNR
Supervisor, Lenny Farlee and Liz Jackson (extension specialists, FNR).
Host to Dr. John Riggins, Mississippi State University, January 2018.
Chair, Chair AP Advancement Committee, 2017.
Host to Dr. Robert Mitchell, University of Wisconsin-Oshkosh, September 2017.
Host to Dr. Denita Habžiabdić, University of Tennessee-Knoxville, May 2017.
Coach, Linnaean Games Team, 2015-2017.
Member, Physiologist (Insect-microbe interactions) search committee, 2015-2016
Coach, Linnaean Games Team, 2015-present.
Member, ENTM Safety Committee, 2014-2019.
Host to Dr. Chris Ranger, USDA-ARS Wooster OH, ENTM seminar series, March 2015.
Member, AP Advancement Committee, 2012-2014.
Hatch Proposal Reviewer Fall 2013, 2014.
Chair, ENTM Staffing Plan Committee, Fall 2014.
Host to Dr. Jocelyn Millar, UC-Riverside, ENTM seminar series, November 2013.
Host to Dr. Annie Ray, Xavier University, ENTM seminar series, October 2013.

Member of ENTM Department Head five-year review Committee, Fall 2013.
Member of ENTM Mentoring Committee, Spring 2013.
Judge of student poster competition, Department of Forestry and Natural Resources Student Research Symposium, Purdue University, April 2007, April 2008, April 2010, April 2011, April 2013, April 2016.
Member of search committee for Director of Forensic Sciences Program, Department of Entomology, Purdue University, Spring 2012.
Member of Teaching and Curriculum Committee, Department of Entomology, Purdue University, 2012-present.
Member of Graduate Committee, Department of Entomology, Purdue University, Spring 2008-2014.

Professional Organizations
Editorial Board Member, *Environmental Entomology,* Entomological Society of America.
Judge of Ph.D. student presentations, 61st Annual Meeting of the Entomological Society of America, Austin, TX, November 2013.
Member of Entomological Society of America North Central Branch National ESA Awards Committee (2009-2011; President 2010-2011).

Public Service/Outreach
Media, "Indiana walnut trees not at risk for Thousand Cankers Disease", Indiana Public
Media, Bloomington, IN, November 24, 2017.
Media, "Tiny insect poses huge risk for walnut trees", AgriNews, 2 November, 2017.
Media, "Invasive species may spread to Indiana, destroy trees", WLFI News Channel 18, West Lafayette, IN, August 23, 2016.
Media, "Fort Wayne records benefit Purdue researchers in fighting emerald ash borer", Indiana Economic Digest, August 16, 2016.
Media, "EAB: Saving trees early costs less than replacing them", Arbor Day Foundation, June 27, 2016.
Presentation, "Insects: good and bad", Burnett Creek Elementary School, West Lafayette, IN, May 13, 2014.
Consultant to Steve Alsman, Brookville, IN on ambrosia beetles in ash logs, March 2014.
Consultant to Don Jefferson, Milledgeville, GA on insect damage on black walnut exported to China, February 2014.
Media, "Creepy critters resilient to western Pennsylvania cold", Rick Wills. Pittsburgh Tribune-Review, February 4, 2014.
Participated in IDNR public meetings for aerial treatments for gypsy moths, West Lafayette, IN, January, 2014.
Consultant to Phil Marshall, IN State Entomologist, on powder post beetles affecting historical structure, December 2013.
Presentation, "Using semiochemicals to manage forest pests", FNR Centennial Celebration, September 2013.
Media, AgSpotlight, College of Agriculture, Purdue University, June 2013.
Participated in Bug Bowl, Department of Entomology, Purdue University, April 2007-2016.
Mentor, The Insect Fair at Frankfort High School, Frankfort, IN, Fall 2012, 2010.