Curriculum Vitae

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2020-present

ACADEMIC APPOINTMENTS

Professor, Dept of Environmental and Forest Biology, SUNY-ESF

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| Department Chair, Dept of Environmental and Forest Biology, SUNY-ESF | 3/2019-5/2022 |
| Associate Dept Chair, Dept of Environmental and Forest Biology, SUNY-ESF | 7/2017-2/2019 |
| Director & Academic Program Coordinator, Cranberry Lake Biological Station | 2016–2019, 2022 |
| Associate Professor, Dept of Environmental and Forest Biology, SUNY-ESF | 2013-2020 |
| Assistant Professor, Dept of Environmental and Forest Biology, SUNY-ESF | 2007-2012 |
| Post Doctoral Fellow, Forest Entomology, University of Arkansas | 2006-2007 |
| EDUCATION | |
| PhD Entomology, Minor Biology, University of Arkansas | 2002-2006 |
| MS Fisheries & Wildlife, Oregon State University | 1999–2002 |
| MS Environmental Science: Water Resources, Oregon State University | |
| BS Environmental Biology, Arkansas Tech University | 1996–1998 |
| BS Environmental Chemistry, Arkansas Tech University | |
| Associates of Arts, North Arkansas Community College | 1986–1988 |

HIGHER EDUCATION LEADERSHIP

Academic Governance Executive Chair, 2018 Faculty Governance Executive Committee (2010–18) President's Leadership Council – faculty representative (2017–2018) Graduate Program Advisory Committee (2010–12), Chair/co-Chair (2013–19), (2016–2019) Bicycle Safety Committee – founded January 2013, Chair (2013–2015), co-Chair (2016–present) Women's Caucus, (2010–present), executive board (2015–present) College Athletics Committee (2012–present) Sustainability Committee (2015–2018) Faculty Governance Secretary (2013–2017) Faculty Governance Committee on Outreach – member (2007–09), Chair (2010–12) First Year Learning Community Committee (2008–2017)

AWARDS

2019 SUNY Chancellor's Award for Faculty Service
2014 Cornell Cooperative Extension Program Cooperator Award, Onondaga County
2014 President's Award for Public Service and Outreach
2013 Distinguished Teaching Award, SUNY ESF Undergraduate Student Association
2013 President's Award for Public Service and Outreach

NOTABLE INVITED PRESENTATIONS

MK Fierke. July 2017. Press conference with Senator Chuck Schumer on importance of Lyme disease.MK Fierke. Mar 2013. Keynote Presentation: Aspiring to be an intentional model: mother, scientist, mentor, and teacher. Utica College's Womyn's Herstory Month Luncheon.

HIGHLIGHTS OF LEADERSHIP RESPONSIBILITIES & ACCOMPLISHMENTS (NOT AN EXHAUSTIVE LIST)

Department Chair

- Worked with faculty to re-envision and fill five faculty lines and a staff line. Through this process, we hired four additional females, including a forest pathologist (despite multiple failed searches a number of years ago) to contribute to our forest health major and a stream ecologist a first for the dept/college, who will also serve as Director of Cranberry Lake Biological Station.
- Wrote departmental by-laws, developed an organization chart, improved process flows, expanded the number of Associate Chairs and clearly delineated their roles (and other titles), detailed department chair responsibilities, expectations, and a replacement search process to ensure continuity and transparency.
- Stewarded through an update to our departmental Promotion and Continuing Appointment Guidelines to include a table of targets (with rationale and to reflect general unwritten expectations) for teaching, research, and service to guide new faculty.
- Successfully led a collegial process to modify the department name and update graduate program concentration areas to be more reflective of the current faculty and their expertise.
- Increased number of teaching assistants, from 39 to 49.5, after devising and advocating for a transparent, data-driven, campus-wide reformulation of the allocation process.
- Formalized procedures for the graduate application process and allocation of teaching assistantships.
- Secured much needed staff support positions, specifically student advisors to help alleviate administrative burden for faculty during the academic year and who will also serve as business manager and academic program coordinator for the department's field station.
- Improved appearance and functionality of our academic building by lobbying successfully for improvements and renovations, taking on tasks that needed doing, and undertaking a thoughtful redistribution of spaces among program/faculty/grads. Faculty/staff commented it's been a "joy to see".

Associate Department Chair

- Worked with the ESF College Foundation to manage Dept scholarships/fellowships. Formalized procedures to ensure consistent/transparent administration of awards. Organized/led department graduation ceremony.
- Reinstituted and then continued (as Chair) nominating faculty and staff for awards to recognize their excellence and accomplishments. Over 5 years, I successfully moved forward:
 - One faculty for College Foundation Award for Exceptional Achievement in Teaching
 - Three faculty for college-level Exemplary Researcher awards
 - o Two faculty for SUNY Distinguished Professors
 - o Three faculty for SUNY Chancellor's Award for Excellence in Scholarship and Creative Activities
 - One faculty for SUNY Chancellor's Awards for Excellence in Faculty Service
 - o Two faculty for SUNY Chancellor's Awards for Excellence in Teaching
 - o One staff member for SUNY Chancellor's Excellence in Professional Service

DIRECTOR AND ACADEMIC PROGRAM COORDINATOR, CRANBERRY LAKE BIOLOGICAL STATION

Managed day-to-day tasks of the station in the summer as well as AY obligations:

- Developed a manual with detailed information on responsibilities and timelines for the Director, Academic Program Coordinator, and Business Manager (served as a foundation for hiring 3 folks into these positions).
- Updated the CLBS Handbook and developed multiple others, e.g., Faculty Guidelines and Information, Work Study Responsibilities, Student Safety.
- Worked closely with both on-campus offices (Registrar, Student Affairs, Business Office, etc.) and onstation Dining Service and Physical Plant personnel to develop budgets and integrate functions in support of academic programs.
- Worked closely with College Foundation and Financial Aid Directors to initially authorize and then annually allocate \$9–11k in fellowships to 10–14 students based on financial need.
- Hired > 20 instructors and managed all course and student logistics, registration, grades, etc. for four sessions (50–70 students/session), plus an ongoing (32 yrs) high school program.

TRAINING

Safe Zone LGTBQIA+ Ally training designed to promote a positive campus climate. Objectives are to provide an opportunity to think/talk about gender, sexuality, and intersectionality in a safe space. 2018. National Academies Education Fellow in the Life Sciences at a HHMI Summer Teaching Institute 2013–14.

COURSES TAUGHT

| Systematic Entomology - Spring Even Years (10–15 students, ~40:60 grads/UGs): 201 Core Course: Intro to Graduate School, Fall (10–20 grads): 2013–present CLBS Ecological Monitoring Field Sampling, 3 wk summer course (180–210 UGs): 20 Including: Sampling, Statistics, Entomology, Invertebrates General Biology: Organismal Biology and Ecology, Fall (300–350 UGs): 2008–2021 Forest Health Monitoring, 2 wk summer course (10–15 students): 2010, 2012, 2014 | |
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| Research Publications | Cited by |
| MK Fierke, DD Skabeikis, JG Millar, SA Teale, JS McElfresh, LM Hanks. 2012 Identification of a male-produced aggregation pheromone for <i>Monochamus scutellatus</i> <i>scutellatus</i> and an attractant for the congener <i>Monochamus notatus</i> (Coleoptera: Cerambycidae). J. Economic Entomology 105: 2029–2034. | <i>us</i> 73 |
| MK Fierke , DL Kinney, VB Salisbury, DJ Crook, FM Stephen. 2005. Development a comparison of intensive and extensive sampling methods and preliminary within-tree population estimates of red oak borer (Coleoptera: Cerambycidae) in the Ozark Mour Arkansas. Environmental Entomology 34:184-192. | 69 |
| MK Fierke, JB Kauffman. Structural dynamics of riparian forests along a black cotton successional gradient. 2005. Forest Ecology & Management 215: 149–162. | nwood 64 |
| MK Fierke, DL Kinney, VB Salisbury, DJ Crook, FM Stephen. 2005. A rapid estimate procedure for within-tree populations of red oak borer (Coleoptera: Cerambycidae). Ecology and Management 215: 163–168. | |
| MK Fierke, JB Kauffman. Invasive species influence riparian plant diversity along a successional gradient, Willamette River, Oregon. 2006. Natural Areas J. 26: 376–382 | 2. 47 |
| MK Fierke , MB Kelley, FM Stephen. 2007. Site and stand variables influencing red of borer, <i>Enaphalodes rufulus</i> (Coleoptera: Cerambycidae), population densities and tre mortality. Forest Ecology and Management 247: 227–236. | |
| LJ Haavik, FM Stephen, MK Fierke , VB Salisbury, SW Leavitt, SA Billings. 2008. Dendrochronological parameters of northern red oak (<i>Quercus rubra</i> L. (Fagaceae)) with red oak borer (<i>Enaphalodes rufulus</i> (Haldeman)(Coleoptera: Cerambycidae)). F Ecology and Management 255: 1501–1509. | 37 |
| C Rutledge, MK Fierke , P Careless, T Worthley. 2013. First detection of <i>Agrilus plar</i> in Connecticut made by monitoring <i>Cerceris fumipennis</i> (Crabronidae) colonies. J Hymenoptera Research 32: 75–79. | nipennis 35 |
| PT Eager, DC Allen, JL Frair, MK Fierke . 2011. Within-tree distributions of the <i>Sire</i> . Fabricius (Hymenoptera: Siricidae)-parasitoid complex and development of an optim sampling scheme. Environmental Entomology 40: 1266–1275. | |
| JG Millar, RF Mitchell, JA Mongold-Diers, Y Zou, CE Bogran, MK Fierke, MD Ginz Johnson, JR Meeker, TM Poland, IR Ragenovich, LM Hanks. 2017. Identifying poss pheromones of cerambycid beetles by field testing known pheromone components in widely separated regions of the United States. J Econ Entomol 111: 252–259 | sible 31 |
| MK Fierke , JB Kauffman. Riverscape-level patterns of riparian plant diversity along successional gradient, Willamette River, Oregon. 2006. Plant Ecology 185: 85–95. | a 29 |
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| Research Publications | Cited by |
|---|----------|
| LM Hanks, JA Mongold-Diers, T Atkinson, MK Fierke , MD Ginzel, E Graham, TM Poland, A Richards, M Richardson, JG Millar. 2018. Blends of pheromones and host plant volatiles can attract multiple species of cerambycid beetles simultaneously. J Econ Ento 111: 716–724. | 30 |
| N. Peidmonte, S. Shaw, M.A. Prusinski, M.K. Fierke. 2018. Landscape features associated with blacklegged tick (Acari: Ixodidae) density and tick-borne pathogen prevalence at multiple spatial scales in central New York State. J Medical Entomology 55:1496–1508. | 26 |
| MB Kelley, MK Fierke , FM Stephen. 2009. Identification and distribution of <i>Armillaria</i> species associated with an oak decline event in the Arkansas Ozarks. For Path 39: 397–404. | 23 |
| CR Standley, ER Hoebeke, D Parry, DC Allen, MK Fierke . 2012. Detection and identification of two new native hymenopteran parasitoids associated with the exotic <i>Sirex noctilio</i> in North America. Proc. Entomological Society of Washington 114: 238–249. | 22 |
| KM Dean, JD Vandenberg, MH Griggs, LS Bauer, MK Fierke . 2012. Susceptibility of two hymenopteran parasitoids of <i>Agrilus planipennis</i> (Coleoptera: Buprestidae) to the entomopathogenic fungus <i>Beauveria bassiana</i> (Ascomycota: Hypocreales). J Invertebrate Pathology 109: 303–306. | 22 |
| WE Hellman, MK Fierke . 2014. Evaluating buprestid preference and sampling efficiency of the digger wasp, <i>Cerceris fumipennis</i> , using morphometric predictors. J Insect Sci 14: 4–8. | 21 |
| CJ Foelker, CR Standley, D Parry, MK Fierke . 2016. Complex ecological relationships among an assemblage of indigenous hymenopteran parasitoids, the exotic European woodwasp (<i>Sirex noctilio</i> ; Hymenoptera: Siricidae), and a native congener. Can Entomol 148: 532–542. | 20 |
| CE Rutledge, W. Hellman, C Teerling, MK Fierke . 2011. Two novel prey families for the buprestid-hunting wasp <i>Cerceris fumipennis</i> (Hymenoptera: Crabronidae). Coleopterists Bulletin. 65: 194–196. | 19 |
| MK Fierke , FM Stephen. 2007. Red oak borer (Coleoptera: Cerambycidae) flight trapping in the Ozark National Forest, Arkansas. Florida Entomologist 90: 488–494. | 19 |
| MI Jones, JR Gould, HJ Mahone, MK Fierke. 2018. Phenology of emerald ash borer (Coleoptera: Buprestidae) and its introduced larval parasitoids in the northeastern United States. J Econ Entomol 113:622–632. | 18 |
| MS Parisio, JR Gould, JD Vandenberg, LS Bauer, MK Fierke . 2017. Evaluation of recovery and monitoring methods for parasitoids released against emerald ash borer. Biological Control 106: 45–53. | 18 |
| LJ Haavik, MK Fierke , FM Stephen. 2010. Factors affecting suitability of <i>Quercus rubra</i> as hosts for <i>Enaphalodes rufulus</i> (Coleoptera: Cerambycidae). Environ Entomol 39: 520–527. | 18 |
| DJ Crook, MK Fierke , A Mauromoustakos, DL Kinney, FM Stephen. 2007. Optimization of sampling methods for within-tree populations of red oak borer, <i>Enaphalodes rufulus</i> (Haldeman)(Coleoptera: Cerambycidae). Envir Entomol 36: 589–594. | 17 |
| MI Jones, J Gould, ML Warden, MK Fierke . 2019. Dispersal of emerald ash borer (Coleoptera: Buprestidae) parasitoids along an ash corridor in western New York. Biol Control 128: 94–101. | 16 |
| MK Fierke , FM Stephen. 2008. Callus formation and bark moisture as potential physical defenses of northern red oak, Quercus rubra, against red oak borer, <i>Enaphalodes rufulus</i> (Coleoptera: Cerambycidae). Canadian Entomologist 140: 149–157. | 16 |

| RESEARCH PUBLICATIONS | Cited by |
|---|----------|
| MI Jones, JR Gould, MK Fierke . 2017. Mortality of overwintering emerald ash borer (Coleoptera: Buprestidae) associated with an extreme cold event in New York, United States of America. Canadian Entomologist. 149: 482–486. | 12 |
| CJ Foelker, D Parry, MK Fierke . 2018. Biotic resistance and spatiotemporal distribution of an invading woodwasp, <i>Sirex noctilio</i> . Biological Invasions. 20: 1991–2003. | 11 |
| CJ Foelker, CR Standley, MK Fierke , D Parry, CM Whipps. 2016. Host tissue identification for cryptic hymenopteran parasitoids associated with <i>Sirex noctilio</i> . Agri & For Entomol 18: 91–94. | 11 |
| MK Fierke , MC Whitmore, C Foelker, JD Vandenberg, J Carlson. 2013. Delimitation and management of emerald ash borer (Coleoptera: Buprestidae): case study at an outlier infestation in southwestern New York State, United States of America. Canadian Entomologist 145: 577–587. | 10 |
| LJ Haavik, DJ Crook, MK Fierke , LD Galligan, FM Stephen. 2012. Partial life tables from three generations of <i>Enaphalodes rufulus</i> (Coleoptera: Cerambycidae). Environ Entomol 41: 1311–1321. | 10 |
| G Tumminello, T Volk, S McArt, MK Fierke . 2018. Maximizing pollinator diversity in willow biomass plantings: A comparison among willow sex and pedigrees. Biomass and Bioenergy 117: 124–130. | 9 |
| M Fierke , D Nowak, R Hofstetter. 2011. Seeing the forest for the trees: forest health monitoring. Forest Health, Editors J. Castello, S. Teale. | 9 |
| CE Rutledge, MK Fierke , PD Careless, C Teerling. 2015. Degree-day model for emergence of <i>Cerceris fumipennis</i> (Hymenoptera: Crabronidae) in northeastern America based on field observations. Annals Entomological Soc America 108: 971–977. | 8 |
| CJ Foelker, JD Vandenberg, M Whitmore, MK Fierke . 2013. Modeling <i>Agrilus planipennis</i> (Coleoptera: Buprestidae) within-tree colonization patterns and development of a subsampling technique. Environ Entomol 42: 532–538. | 8 |
| D Crook, F Stephen, MK Fierke , D Kinney, V Salisbury. 2004. Biology and sampling of red oak borer populations in the Ozark Mountains of Arkansas. Gen. Tech. Rep. SRS-73. Asheville, NC: US Department of Agriculture, Forest Service. | 7 |
| DD Skabeikis, SA Teale, MK Fierke . 2016. Diel rhythms in <i>Monochamus</i> (Coleoptera: Cerambycidae): Production of and response to a male-produced aggregation pheromone. Environ Entomol 45: 1017–1021. | 6 |
| MK Fierke , FM Stephen. 2010. Dendroentomological evidence associated with an outbreak of the native wood-boring beetle <i>Enaphalodes rufulus</i> . Can J For Res 40 (4), 679–686. | 6 |
| MK Fierke . 2006. Distribution and abundance, stand and site conditions, host selection and oak defenses associated with a red oak borer (Coleoptera: Cerambycidae) outbreak in the Ozark National Forest, Arkansas. PhD Dissertation, University of Arkansas, Fayetteville | 5 |
| C Bondi, C Beier, MK Fierke , PK Ducey. 2018. Trophic ecology and nutrient assimilation of a terrestrial salamander (<i>Plethodon cinereus</i>) across a gradient of calcium availability in northern hardwood forests. Canadian J Zoology. <u>https://doi.org/10.1139/cjz-2017-0302</u> | 4 |
| DD Skabeikis, MK Fierke , SA Teale. 2016. Field response of <i>Monochamus scutellatus scutellatus</i> and <i>Monochamus notatus</i> (Coleoptera: Cerambycidae) to the male-produced pheromone, 2(undecyloxy)-ethanol, and host volatiles. J Econ Entomol 109:1220–1225. | 2 |

| Research Publications | Cited by |
|---|----------|
| MK Fierke . 2002. Composition, structure, and biomass of cottonwood-dominated gallery forests along a successional gradient, Willamette River, Oregons. MS Thesis, Oregon State University. | 5 |
| SE Scanga, MK Fierke . 2008. "Say goodbye to sleep": perspectives on building a family and a career at the same time. Frontiers in Ecology and the Environment 6: 448–449 | 1 |
| MK Wybron, MD Schlesinger, MK Fierke, JL Frair, D Parry. 2021. Estimating abundance and occupancy of northern barrens tiger beetles in an isolated New York population. Northeastern Naturalist. 28: 156–168. | 1 |
| J Gould, MK Fierke, M Hickin. 2022. Mortality of emerald ash borer larvae in small regenerating ash in New York forests. J Econ Entomol. 115:1442–1454. | 0 |

Manuscripts Submitted

- M Jacobson, M Schummer, M Fierke, D Leopold. Wild bee diversity and pollination networks of restored emergent marshes in Central New York, USA. Journal of Insect Conservation. *Final Review*
- T Morris, J Gould, **MK Fierke**. Establishment and impacts of emerald ash borer (Coleoptera: Buprestidae) biological control under pre-aftermath and aftermath forest conditions. Journal of Economic Entomology. *In Review*
- T Morris, J Gould, J Drake, **MK Fierke**. Status of ash forests and regeneration a decade after first detection of emerald ash borer Infestation in New York State. Forest Ecology and Management. *In Review*
- T Morris, J Gould, J Drake, **MK Fierke**. Factors affecting distribution of emerald ash borer parasitoids in an urban environment. Landscape and Urban Planning. *In Review*

Book Chapters

- M Fierke, D Nowak, R Hofstetter. Seeing the forest for the trees: forest health monitoring. Forest Health. Editors J. Castello, S. Teale.
- J Clemons, **MK Fierke**. 2019. Empowering students to see themselves as part of institutional scholarship. Book Ch: In the Sandbox. Association of College and Research Libraries, American Library Association. <u>https://www.alastore.ala.org/content/scholarship-sandbox-academic-libraries-laboratories-forums-and-archives-student-work</u>

Non-refereed

MC Whitmore, **MK Fierke**. 2010. Emerald ash borer is now in New York. New York Forest Owner. 48:14–15. **MK Fierke**, C.J. Foelker. 2014. Scorpionflies: Unusual Forest Insects. New York Forest Owner. 54: 14–15.

PhD Student's Single Authored/Mentored papers

- CJ Foelker. 2016. Beneath the bark: associations among *Sirex noctilio* development, blue stain fungi, and pine host species in North America. Ecological Entomology. 41:676–684.
- MI Jones. 2016. Biocontrol of emerald ash borer: hope for the future. New York Forest Owner Southern Tier Newsletter & Western Finger Lakes Forest Owner.
- CJ Foelker. 2014. Sirex noctilio: A Cosmopolitan Forest Pest. New York Forest Owner. 51: 14-15.

CURRENT RESEARCH SUPPORT

- **MK Fierke**. Assessing compatibility of insecticides and biocontrol for controlling emerald ash borer in urban environments. 5/15–3/23. \$250,000. Cooperative Workplan with J. Gould, USDA APHIS.
- MK Fierke, T Morris. Long term dispersal of emerald ash borer associated parasitoids in New York. 4/23–3/24. \$88,433. Cooperative Workplan with J. Gould, USDA APHIS.
- MK Fierke. Elm zigzag sawfly research. 5/23–4/25. \$115,205. NY DEC.

PAST RESEARCH SUPPORT

- **MK Fierke**. Saving ash trees in "aftermath" forests using EAB parasitoids. 5/18–8/22. \$162,244. Cooperative Workplan with J. Gould, USDA APHIS.
- C Nowak, **MK Fierke**. Exploring pollinator dynamics on powerline corridors in the Northeastern United States. Electric Power Research Institute. 2016–9/2020. \$528,146.
- **MK Fierke**. Optimizing pan trap color for parasitoid monitoring and *Oobius* parasitism in NYS. 5/18–5/20. \$32,000. Cooperative Workplan with J. Gould, USDA APHIS.
- **MK Fierke**. Geographical comparisons of synchrony and phenology of emerald ash borer and its introduced larval parasitoids in New York. 4/15–9/18. \$360,000. Cooperative Workplan with J. Gould, USDA APHIS.
- MK Fierke, G McGee. Restoration of understory vascular plant and pollinator assemblages in post-agricultural forest of central New York. 8/15–7/18. McIntire-Stennis Cooperative Forestry. \$57,669.
- S Shaw, **MK Fierke**. Elucidating characteristics of forest/residential land interfaces associated with increased risk of tick-borne diseases. 8/15–9/17. McIntire-Stennis Cooperative Forestry. \$59,694.
- GG McGee, **MK Fierke**. Nutrient resources associated with establishment and long-term maintenance of emerald ash borer biocontrol agents. 8/14–7/17. McIntire-Stennis Cooperative Forestry. \$53,860.
- **MK Fierke**, J Gould, J Vandenburg, L Bauer. Assessing the impact of emerald ash borer biological control on the health of ash trees in two outlier infestations in New York State. 8/13–7/16. \$119,416. Northeastern States Research Cooperative.
- MK Fierke, J Vandenburg, M Whitmore, R Davies. Emerald ash borer rapid response management strategy for New York State. U.S. Forest Service. 09/10–08/12. \$133,315.
- Sadie. Ryan, **M.K. Fierke**. Modeling the mother trees: the super spreader phenomenon in an emerging emerald ash borer. 8/13–9/15. McIntire-Stennis Cooperative Forestry. \$80,302.
- Chris Whipps, **M. Fierke**, D Parry. Development of molecular techniques to inform management of *Sirex noctilio*, an introduced woodwasp. 5/13–9/15. McIntire-Stennis Cooperative Forestry. \$81,235.
- C Beier, J Gibbs, **MK Fierke**, M Mitchell, M Dovciak. Impacts of acidic deposition and soil calcium depletion on terrestrial biodiversity and food webs in Northern hardwood forest ecosystems. Northern States Research Cooperative. \$150,000. 08/10–10/12.
- **MK Fierke**, D Parry, D Allen. Evaluating impacts of native parasitoids on the invasive *Sirex noctilio* in New York. McIntire-Stennis Cooperative Forestry. \$79,800, 10/09–9/12.
- C Rutledge, P Careless, C Teerling, **MK Fierke**. Degree day modeling and captive colony research for *Cerceris fumipennis*. \$48,000. (\$11,990 to ESF). USDA Forest Service. 2/11–2/12.
- MK Fierke ESF Seed Grant. Dedroentomology & oviposition scars of *Sirex noctilio*, \$3,200, 01/08–06/09.
- D Allen, **MK Fierke**, USDA Forest Service, Survey of Siricidae (Sirecinae) and their parasitoids in the pine forests of central New York state, with special emphasis on the exotic *Sirex noctilio*, \$47,074, 08/07–05/10.

PAST UNFUNDED (AKA BOOTLEGGED) RESEARCH

Quantify dispersal of emerald ash borer parasitoids along a linear corridor

Cooperators include USDA APHIS, NY DAM, & New York State Parks.

- Quantify presence and abundance of cerambycids of conservation interest in Romanian Forests Worked with Bekka Brodie as her postdoctoral advisor.
- Cooperators included: Synergy Chemicals and USDA APHIS have provided lures and traps for the research. **Evaluating new formulations of emmectin benzoate to save large trees**
- Worked with Rainbow Tree Care and they compensated us by purchasing a chainsaw for the lab.

Evaluation of pheromone lures for longhorned beetles in NY State

Collaboration with Larry Hanks, University of Illinois, Champagne-Urbana and Jocelyn Millar, University of California, Riverside. Funded with start-up funds. 2010–12

Trapping and rearing of Philornis downsii, a parasite of Galapagos Aves

Collaboration with the Charles Darwin Foundation. 2009. A research report on potential to use sterile insect technique provided based on work to develop a diet for fly larvae.

GRADUATE STUDENTS

Current lab members

Sam Long, MS Conservation Biology, 8/2022–present Jack Memmer, MS Entomology, 8/2021–present Brittney Leyda, MPS Conservation Biology, co-MP with J Cohen, 8/2021–present Timothy Morris, Post Doctoral Scientist

Finished (3 PhD, 18 MS, 7 MPS)

- Timothy Morris, PhD Conservation Biology Dec 2022, co-MP J Drake: Establishment and impacts of biological control agent introduced for control of emerald ash borer.
- Molly Jacobson, MS Conservation Biology, co-MP M Schummer, May 2021: Response of wild pollinator assemblages to management of restored wetlands in central New York.
- Ben Robedee, MPS Ecology, Dec 2020: Nest Structure and Function of a Namibian *Pheidole* ant.
- Xue Dong, MS Environ Education & Interp, co-MP E Folta, May 2020: Investigating impacts on visitor's environmental attitudes and behavior through innovative interpretative media: a design-based case study.
- Skyler Susnick, MPS Ecology, May 2020: Surveying permanent sampling hemlock plot in the Finger Lake and Hudson Valley regions to monitor for hemlock woolly adelgid (*Adelges tsugae*).

Abigail Jago, MS Entomology, Dec 2019: Understanding habitat effects on pollinator guild composition in New York State and the importance of community science involvement for long-term monitoring.

- McKenzie Wyborn, MS Ecology, co-MP D Parry, Dec 2019: Habitat selection, prey preference, and population ecology of northern barrens tiger beetles in the Hudson Valley, New York.
- Brittney Rogers, MS Environmental Education and Interpretation, Aug 2019. Using a train-the-trainer approach to maximize community science training capacity for the iMapInvasives certified trainers network.
- Jessica Van Splinter, MS Forest Resources Management, co-MP C Nowak, Jan 2019. A retrospective study assessing potential effects of powerline corridor vegetation management treatments on insect pollinator resources.
- Michael Jones, PhD Entomology, Aug 2018. Dispersal, phenology, and cold hardiness of emerald ash borer and its introduced parasitoids.
- Erica McPhail, MS Entomology, May 2018. Influences of vegetation management strategies on pollinator assemblages on powerline rights of way.
- Jade Johnson, MS Environmental Education & Interpretation, co-MP E Folta, May 2018. High school wildlife education through a first time job experience: an evaluation of Rosamond Gifford Zoo's Zooguide Program. Anastasia Allwine, MPS Forest Technology, May 2018, co-MP R Germain

Nick Piedemonte, MS Fish & Wildlife Management, co-MP S Shaw, May 2017. Black legged ticks, *Ixodes scapularis* (Say), in central NY: density, distribution, and prevalence of associated human pathogens.

Dana Brennan, MS Entomology, May 2017 Effects of sugar resources on longevity of two emerald ash borer (*Agrilus planipennis*) parasitoids.

- Giuseppe Tumminello, MS Entomology, co-MP T Volk, Dec 2016. Insect pollinators of a short rotation coppice willow biomass agroecosystem.
- Jane Raffaldi, MPS Conservation Biology, Dec 2016. Co-occurring invasives and landowner awareness of invasive giant hogweed.
- Christopher Foelker, PhD Entomology, Dec 2015 Biotic resistance to *Sirex noctilio* across multiple spatial scales.
- Stephanie Nick, MPS Environmental Education and Interpretation, co-MP E Folta, Dec 2015. Invasive species management through interpretation, education, and outreach: creating an interpretive panel.
- Michael Parisio, MS Entomology, Dec 2014. Biological control of emerald ash borer: assessment and applications of current parasitoid monitoring methods.
- Joelle Chille-Cale, MPS Ecology, co-MP C Whipps, Aug 2014. New biological and cultural control methods of the non-native nursery pest *Xylosandrus germanus*.

Gregory Russo, MPS Conservation Biology, May 2013. Monitoring and management of emerald ash borer in the eastern Finger Lakes region and Rochester, NY.

Dominick Skabeikis, MS Chemical Ecology, co-MP S Teale, May 2012. Male pheromone of the pine sawyer beetles, *Monochamus scuellatus* (Say) and *Monochamus notatus* (Drury) (Coleoptera: Cerambycidae): production, response and circadian rhythms.

Christopher Standley, MS Fish & Wildlife Management, co-MP D Parry May 2012. Emergence phenology and ecological interactions between the exotic *Sirex noctilio*, native siricids, and a shared guild of native parasitoids.

Kimberly Dean, MS Entomology, May 2012. Parasitoids and pathogens of emerald ash borer: Implications for biological control at all life stages.

Warren Hellman, MS Entomology, May 2011. Evaluating use of the native digger wasp *Cerceris fumipennis* (Say) as a sampling method for New York Buprestidae.

Peter Rockermann, MS Entomology, May 2011. Implications for invasion by emerald ash borer in New York: ash abundance in riparian areas and moth assemblages in upland and lowland forests with high and low ash densities.

Patrick Eager, MS Entomology, May 2010. An analysis of the *Sirex noctilio* Fabricius (Hymenoptera: Siricidae) - parasitoid complex in New York State.

Jacob Wickham, PhD

Graduate Student Committees:

| Paul Bryant, MS | Molley Hassett, MS |
|---------------------|-----------------------|
| Keith Post, MS | Zack Smith, MS |
| Monica Phillips, MS | Cheryl Bondi, PhD |
| Brian Hoven, MS | Rebecca Walling, MS |
| Philip Barber, MS | Geoff Griffiths, PhD |
| Caitlin Snyder, MS | Ryan Smith, MS |
| Jamie Jones, MS | Georgia Keene, MS |
| Jason Hamadi, MS | Elizabeth Steiber, MS |
| Brandy Brown, MS | Tom Evans, PhD |
| | |

External Examiner/Reader

Joyce Fassbender, PhD, CUNY, 2013 Jeff Lombardo, PhD, Dartmouth, M. Ayers MP, 2015 Stephen Seaton, PhD, Murdoch University, Australia, 2018

Chair, PhD candidacy exams and defenses

Asa Kline, 2008 MS Forest Resources Management Karen Schmitt, 2010 PhD Chemistry Jesse Crandall: Candidacy, 2012 Chemistry Joanne Kinsey: Candidacy, 2011 Chemistry Daniela Manuschevich, 2014 PhS Forest Resources Management Derek Corbett, 2014 MS Paper and Bioprocess Engineering Dustin Hill, 2016, MSEnvironmental Studies Zhijun Tan: Candidacy, 2018 Chemistry Reza Abdi, 2019, PhD Environmental Resource Engineering Sarina Adeli : Candidacy, 2021 Environmental Resource Engineering

Bekka Brodie Miguel Zapata, MS Will Helenbrook, PhD Aaron Brown, MS David Nesbit, MPS Patricia Kashian, PhD John Zeiger, MS Chelsae Jahant-Millar, PhD Marianos Arias, PhD Eric Swiecki, MS

| Eli Grippin | Julia Rushton | Megan Donor | Chris Wilson |
|-------------------|----------------------------|-------------------|---------------------|
| Ashmita Das | Dylan Mahalko | Shiann Lindsay | Christian Chevelier |
| Chapin Czarnecki | Eva Hanen | Alexa Stratton | Emma Livingston |
| Tahnee Ames | Danielle Wonter | Lorenzo Natalie | Hope Mahon |
| Anastasia Allwine | Dan Geoffroy | Odin Bernardo | Levi O'Brien |
| Brandon Halstein* | Sarah Kirkpatrick | Devin Sullivan | James Rittenhouse |
| Trupti Indurkar* | Emma Kubinski | Chris Cruz^ | Ben Kosalek |
| Anish Kirtane | Elise Matos | Ian Newcomb | Ryan Crandall |
| Emily Proutey | Igor Shiraishi^ | Terrance Caviness | Jared Carpentier |
| John Welsh* | Rafael Rodrigues Canejo^ | Richard Rich | Brad Winkleman |
| Dan Geoffroy | Brigette Wierzbicki | Funmi Afelumo | David Bullis |
| Jacob Parr | Patrick Shaw (High School) | Elizabeth Keyser | Katie Walters |
| Elizabeth Giglio | David Nesbit | Candi Finger | Rurick Fencl |
| Greg Williams | Katie McKeever | | |

RESEARCH TECHNICIANS*, UG RESEARCH ASSISTANTS, & VOLUNTEERS^

PROFESSIONAL SERVICE

Associate Editor: Forest Science 2016–2019

Reviewer Agriculture and Forest Entomology, Biocontrol, Biological Invasions, Canadian Entomologist, Canadian Journal of Forest Research, Coleopterist Bulletin, Environmental Entomology, Economic Entomology, Forest Ecology and Management, Forest Science, Journal of Forestry, Journal of Pest Management, Northeastern Naturalist, Pest Management Science, Oecologia

NSF grant proposals (multiple) and American Association of University Women fellowship panel 2015, 2017 National Academy of Science Ford Foundation Fellowships review panel 2023

Symposia Organized

Eastern Branch Meeting, Entomol. Soc. of Am. Co-organized with Claire Rutledge, Conn Exp Ag Sta. Title: Thin green line, 3/2013, Harrisburg, NY.

NY Society of American Foresters. Title: New York forest invaders, 1/2012, Syracuse, NY.

- New York Society of American Foresters. Title: Emerald ash borer Overview: biology, mitigation and research, 1/2011, Syracuse, NY.
- Eastern Branch Entomol. Soc. of Am. Co-organized with Dan Gilrein, Cornell University. Title: Pests of Woody Plants, 3/2011, Harrisburg, NY.
- North American Forest Insect Work Conf. Title: Invasive wood borers, what we know and what we don't know, 5/2011, Portland, OR.

Other Professional Service

- Science advisor to NYDEC Forest Health group on emerald ash borer and other forest invasives. Attend meetings in Albany and venues around NYS.
- Founder and as co-director, along with Mark Whitmore (Cornell Natural Resources Dept), for the New York Forest Health Advisory Council. In this position I organized & facilitated annual/semi-annual meetings at ESF for many years – this task is now carried on by the Forest Health group in NY DEC.
- Serve on the City of Syracuse Emerald Ash Borer Task Force attending monthly meetings with other collaborators, e.g., Steve Harris, the Syracuse City Arborist, Jesse Lyons, Cornell Cooperative Extension, David Coburn, Onondaga Director of the Environment. I was a member of several sub-committees developing and implementing a preparedness plan for Syracuse and Onondaga County.

SCIENTIFIC PRESENTATIONS

2023

- JR Gould, **MK Fierke**. Mortality of EAB and survival of sapling ash in forests following the collapse of EAB outbreaks. Annual USDA APHIS Invasives meeting. Annapolis MD.
- T Morris, JR Gould, **MK Fierke**. Persistence of ash regeneration a decade after initial emerald ash borer infestation in New York State. Annual USDA APHIS Invasives meeting. Annapolis MD.
- T Murphy, JR Gould, **MK Fierke**, T Morris, J. Kaltenbach, F. Miller. Integration of biocontrol with treatment of ash trees in urban and natural forests. Annual USDA APHIS Invasives meeting. Annapolis MD.

2021–2022

- T Morris, JR Gould, **MK Fierke**. The current status of emerald ash borer management in New York State. Nov 2022. All PRISM Call Invasive Species Seminar Series meeting. Virtual.
- T Morris, JR Gould, J Drake, **MK Fierke**. Impacts of urban Land Cover on the Distribution of Emerald Ash Borer Associated Parasitoids. Apr 2022. Ento Soc of America, Eastern Branch Meeting, Philadelphia, PA.
- T Morris, JR Gould, **MK Fierke**. An update on impacts of urban land cover on the distribution of emerald ash borer associated parasitoids. Mar 2022. Northeast Forest Pest Council Meeting, Portland, ME. Poster.
- T Morris, JR Gould, **MK Fierke**. Biological control of emerald ash borer in Syracuse, NY. Jan 2022. New York State Arborists, International Society of Arboriculture Chapter, Suffern, NY.
- T Morris, JR Gould, **MK Fierke**. History and management of emerald ash borer. Dec 2021. Bedford Audubon Society. Virtual.
- T Morris, JR Gould, **MK Fierke**. The current status of emerald ash borer management in New York State. Nov 2021. New York Invasive Species Summit, Albany, NY.
- T Morris, JR Gould, J Drake, **MK Fierke**. Impacts of urban land cover on the distribution of emerald ash borer associated parasitoids.
 - o Nov 2021. New York Invasive Species Summit, Albany, NY. Poster. (Invited)
 - Nov 2021. Entomological Society of America, Denver, CO.
 - Aug 2021. Ecological Society of America. Virtual Poster.
 - Mar 2021. Northeast Forest Pest Council. Virtual. Best Graduate Student Presentation.

2019–2020

- T Morris, JR Gould, J Drake, **MK Fierke**. Impacts of urban land cover on the distribution of emerald ash borer associated parasitoids.
 - o Jan 2020. NY Soc of American Foresters, Syracuse, NY. Oral presentation and poster.
- Jan 2020. USDA Interagency Forum on Invasive Species, Annapolis, MD. Poster.
- B Rogers, J Dean, **MK Fierke**. Developing and maintaining the iMapInvasives certified trainers network. Apr 2019. Northeast Natural History Conference, Springfield, MA.
- B Rogers, J Dean, **MK Fierke**. Following a train-the-trainer model approach for branching out. Apr 2019. Citizen Science Association meeting, Raleigh, NC.
- M Wybron, M Schelsinger, **MK Fierke**. Habitat selection and dispersal of the northern barrens tiger beetle (*Cicindela patruela*) in the Hudson valley. Apr 2019. New York. Northeast Natural History Conference, Springfield, MA.
- M Wybron, M Schelsinger, **MK Fierke**. Marking technique for northern barrens tiger beetle (*Cicindela patruela*) adults. Apr 2019. Northeast Natural History Conference, Springfield, MA. Poster.

- J Gould, **MK Fierke**, J. Duan, L. Bauer. Introduced parasitoids for biological control of emerald ash borer in North America. Oct 2018. International meeting: Preparing Europe for invasion by the beetles emerald ash borer and bronze birch borer, two major tree-killing pests, Vienna Austria.
- J Gould, **MK Fierke**, J. Kaltenbach, F. Miller, M. Jones. Integrating biological control and insecticide treatments to control emerald ash borer (*Agrilus planipennis*) in urban environments. Nov 2018. ESA/ESC/ESBC Joint Meeting (Entomology 2018). Vancouver, Canada.

- M Jones, **MK Fierke**, J. Gould. Phenology of emerald ash borer (*Agrilus planipennis*) and its introduced parasitoids in New York State. Nov 2018. ESA/ESC/ESBC Joint Meeting (Entomology 2018). Vancouver, Canada.
- M Jones, JR Gould, ML Warden, & **MK Fierke**. Dispersal of the emerald ash borer parasitoid, *Tetrastichus planipennisi* (Hymenoptera: Eulophidae), along a linear ash corridor in western New York. Mar 2018. Northeast Forest Pest Council Meeting, Burlington, VT.
- M Jones, JR Gould, & **MK Fierke**. Synchrony and phenology and emerald ash borer and its introduced larval parasitoids in the Northeast. Mar 2018. Northeast Forest Pest Council Meeting, Burlington, VT. Poster.
- J Gould, **MK Fierke**, J Kaltenbach, FD Miller, MI Jones. Integrating insecticides and biocontrol to combat emerald ash borer in urban environments: Preliminary results. Mar 2018. Entomological Society of America Eastern Branch Meeting. Annapolis MD.
- MI Jones, JR Gould, ML Warden, & **MK Fierke**. Dispersal of the emerald ash borer parasitoid, *Tetrastichus planipennisi* (Hymenoptera: Eulophidae), along a linear ash corridor in western New York. Jan 2018.29th USDA Interagency Research Forum on Invasive Species, Annapolis, MD. Poster.
- E McPhail, C Nowak, **MK Fierke**. Influences of vegetation management strategies on pollinator assemblages on powerline rights of way. Jan 2018. NY Society of American Foresters Meeting, Syracuse, NY.
- E McPhail, C. Nowak, **MK Fierke**. Influences of vegetation management strategies on pollinator assemblages on powerline rights of way. Jan 2018. NY Soc American Foresters Meeting, Syracuse, NY. Poster.
- M Jones, J Gould, & **MK Fierke**. Integrated pest management of emerald ash borer in an urban forest. Oral Presentation. Jan 2018. NY Society of American Foresters Meeting, Syracuse, NY.
- M Jones, J Gould, ML Warden, & **MK Fierke**. Dispersal of the emerald ash borer parasitoid, *Tetrastichus planipennisi* (Hymenoptera: Eulophidae), along a linear ash corridor in western New York. Jan 2018. NY Society of American Foresters Meeting, Syracuse, NY. Poster.
- E McPhail, C Nowak, **MK Fierke**. Influences of vegetation management strategies on pollinator assemblages on powerline rights of way. Nov 2017. Entomological Society of America, Denver, CO.
- M Jones, J Gould, & **MK Fierke**. Phenology and overwintering survival of the introduced larval parasitoids of emerald ash borer in the northeast. Nov 2017.Entomological Soc of America, Denver, CO.
- M Jones, J Gould, **MK Fierke**. Mortality of overwintering emerald ash borer (Coleoptera: Buprestidae) associated with an extreme cold event in New York state. Nov 2017. Presentation. Entomological Society of America, Denver, CO. Poster
- **MK Fierke**. Management of NY forest insect invaders. June 2017. SLELO DEC PRISM Invasives Workshop. ~100 participants. Ithaca, NY.
- M Jones, **MK Fierke**. Emerald ash borer research in New York State. June 2017. SLELO DEC PRISM Invasives Workshop. ~100 participants. Ithaca, NY.
- MK Fierke. Forest entomology and beyond: ticks/Lyme and pollinators. Apr 2017. SUNY Potsdam. Invited.
- M Jones, J Gould, **MK Fierke**. Biological control of emerald ash borer in New York. Feb 2017. Baltimore Woods Nature Center, Marcellus, NY.
- M Jones, J Gould, **MK Fierke**. Phenology and overwintering survival of the introduced larval parasitoids of emerald ash borer in the northeast. Jan 2017. NY Society of American Foresters, Syracuse, NY. Poster.
- M Jones, J Gould, **MK Fierke**. Phenology and overwintering survival of the introduced larval parasitoids of emerald ash borer in the northeast. Jan 2017. 28th USDA Interagency Research Forum on Invasive Species, Annapolis, MD. Poster.
- M Jones, J Gould, **MK Fierke**. Studies on biological control and phenology of emerald ash borer in New York. Jan 2017. NY Society of American Foresters, Syracuse, NY.
- N Piedmonte, S Shaw, M Prusinski, **MK Fierke**. Environmental features associated with blacklegged tick (*Ixodes scapularis*) abundance and tick-borne pathogen prevalence in Onondaga County, New York. Jan 2017. NY Society of American Foresters, Syracuse, NY.
- D Brennan, J Gould, G McGee, **MK Fierke**. Effects of sugar resource use and quality on emerald ash borer parasitoid longevity. Jan 2017. 28th USDA Interagency Research Forum on Invasive Species, Annapolis, MD. Poster.

- E McPhail, C Nowak, **MK Fierke**. Elucidating Pollinator Assemblages Along Powerline Rights-of-Way in Ohio and New York. Jan 2017. NYSAF Conference. Syracuse, NY. Poster.
- J VanSplinter, C Nowak, and **MK Fierke**. Importance of shrub cover in providing early season floral resource for pollinators. Jan 2017. NYSAF Conference. Syracuse, New York. Poster.
- I Weinstein, C Whipps, C Foelker, **MK Fierke**. Establishing host-parasitoid linkages among *Sirex noctilio*, *Sirex nigricornis*, and native hymenopteran parasitoids using genetic markers. Apr 2017. SUNY ESF Spotlight on Research.
- E Steiber, AJ Smith, B Duffy, N Ringler, **MK Fierke**, J. Lojpenberger. Evaluating a provisional macroinvertebrate lake index of biotic integrity: potential drivers of macroinvertebrate community dynamics and water quality in lakes across New York. Apr 2017. SUNY ESF Spotlight on Research. 2nd place.

- **MK Fierke.** Girdling, peeling, and rearing to know: Insights into New York forest invaders. Apr 2016. Ranger School, Wanakena, NY.
- M Jones, J Gould, **MK Fierke**. Phenology and overwintering survival of the introduced larval parasitoids of emerald ash borer in the northeast. Oct 2016.Emerald Ash Borer Research and Technology Development Meeting, Wooster, OH.
- M Jones, J Gould, **MK Fierke**. Phenology of emerald ash borer and its introduced larval parasitoids in the northeast. July 2016. North American Forest Insect Working Conference, Washington D.C. Poster.
- M Jones, **MK Fierke**. Overwintering mortality of emerald ash borer in New York. July 2016. North American Forest Insect Working Conference, Washington D.C. Poster.
- N Piedmonte, S Shaw, M Prusinski, **MK Fierke**. Biotic and abiotic factors affecting blacklegged tick (*Ixodes scapularis*) distribution and tick-borne disease prevalence in Onondaga County, NY. Sept 2016. Entomological Soc of America's XXV International Congress of Entomology (ICE 2016). Orlando, Florida.
- N Piedmonte, S Shaw, M Prusinski, **MK Fierke**. Ticks and Tick-borne disease in New York State. Sept 2016. Syracuse Chapter of the American Wildlife Conservation Foundation. Dewitt, NY. Oral presentation.
- N Piedmonte, S Shaw, **MK Fierke**. Effects of habitat and forest cover on blacklegged tick (*Ixodes scapularis*) distribution in Onondaga County, New York. May 2016. Entomological Society of America Integrated Tick Management Symposium: Solving America's Tick-Borne Disease Problem. Washington D.C. Poster.
- N. Piedmonte, S Shaw, M Prusinski, **MK Fierke**. Enhanced surveillance of blacklegged tick (*Ixodes scapularis*) density and tick-borne disease prevalence in Onondaga County, NY. Feb 2016. New York State Department of Health Tick Workshop. Latham, NY. Oral presentation and Poster.
- N Piedmonte, S Shaw, M Prusinski, **MK Fierke**. Blacklegged tick (*Ixodes scapularis*) density and tick-borne disease prevalence in Onondaga County, NY. Jan 2016. NY Society of American Foresters Conference. Syracuse, NY. Oral presentation and Poster.
- G Tumminello, T Volk, S McArt, **MK Fierke**. Pollinator associations with willow biomass crops utilized for phytoremediation. Sept 2016. Entomological Society of America's XXV International Congress of Entomology (ICE 2016). Orlando, FL.
- D Brennan, J Gould, G McGee, **MK Fierke**. Effects of sugar resource use and quality on emerald ash borer parasitoid longevity. Jan 2016. NY Society of American Foresters Conference. Syracuse, NY. Oral and Poster Presentation.
- E McPhail and **MK Fierke**. Powerline rights-of-way (ROWs) as pollinating insect habitat. Nov 2016. Pollinator Protection Symposium. Santa Barbara, CA.
- F Miller, J Gould, **MK Fierke**, MI Jones, J Kaltenbach. Compatibility of insecticides and biocontrol for controlling EAB in urban environments. Oct 2016.Emerald Ash Borer Research and Technology Development Meeting, Wooster, OH.
- J Gould, M Jones, **MK Fierke**. Dispersal of the parasitoid *Tetrastichus planipennisi* relative to the movement of EAB populations. Oct 2016. Emerald Ash Borer Research & Technol Development Meeting, Wooster, OH.

- J Gould, G Cook, **MK Fierke**, F Miller, and J Kaltenbach. Compatibility of Insecticides and Biocontrol for Controlling EAB in Urban Environments. Jan 2016. USDA Invasive Species Interagency Research Forum, Annapolis, MD.
- G Tumminello, T Volk, S McArt, **MK Fierke.** Pollinator diversity associated with willow biomass crops. Jan 2016. NY Society of American Foresters, Syracuse, NY.
- I Newcomb, C Foelker, **MK Fierke**. Testing a cost-effective woodborer lure for Hymenoptera: Siricidae and Coleoptera: Cerambycidae in New York. Apr 2016. ESF Spotlight Symposium, Syracuse, NY. Poster.
- J Carpentier, M Jones, **MK Fierke**. Detection of emerald ash borer and associated biological control parasitoids on insecticide treated trees vs. untreated control trees: A case study in Syracuse, NY. Apr 2016 ESF Spotlight Symposium, Syracuse, NY. Poster.
- B Wierzbicki, N Piedmonte, **MK Fierke**. Habitat associations of *Ixodes scapularis* (Acari:Ixodidae) in Syracuse, NY. Apr 2016. SUNY ESF Spotlight on Research, Syracuse, NY. Poster.
- CJ Foelker, **MK Fierke**, D Parry, C Whipps. Developing molecular techniques to establish host-parasitoid linkages among *Sirex noctilio*, *S. nigricornis*, and native hymenopteran parasitoids. Jan 2015 USDA Interagency Research Forum on Invasive Species Annapolis, MD. Presentation.
- J Gould, **MK Fierke**, G Cook, M Jones. Dispersal of the emerald ash borer parasitoid *Tetrastichus planipennisi* along a linear greenway in New York. Mar 2015. Eastern Branch Meeting of the Entomological Society of America, Rehoboth, DE.
- R Crandall, C Foelker, **MK Fierke**. Apr 2015. Woodwasp (*Sirex noctilio*) venom and pine host species affect growth of fungal symbiont (*Amylostereum areolatum*). Mar 2015. ESF Spotlight on Student Research. Syracuse, NY. Poster.
- M Jones, S Ryan, **MK Fierke**. Understanding the emerging emerald ash borer infestation in New York. Jan 2015, NY Society of American Foresters, Syracuse, NY.
- M Jones, S Ryan, **MK Fierke**. Understanding the emerging emerald ash borer infestation in New York. Jan 2015 USDA Interagency Research Forum on Invasive Species, Annapolis, MD. Poster.
- M Jones, J Gould, **MK Fierke**. Phenology of emerald ash borer and its introduced larval parasitoids in the northeast. Nov 2015. National Entomological Society of America Conference, Minneapolis, MN.
- N Piedmonte, S Shaw, **MK Fierke**. Ticks and tick-borne disease in Onondaga County. Nov 2015. Cornell Cooperative Extension Train-the-Trainer event, Dewitt, NY.
- N Piedmonte, S Shaw, **MK Fierke**. Ticks and tick-borne disease in Onondaga County. Oct 2015. Public Forum on Deer and Tick Management, Dewitt, NY.
- G Tumminello, T Volk, S McArt, **MK Fierke.** Pollinator diversity associated with willow biomass crops. Nov 2015 Entomological Society of America National Meeting, Minneapolis, MN.

MK Fierke. Girdling, peeling and rearing to know: Insights into New York forest invaders.

- o Feb 2014, SUNY Buffalo graduate seminar series, Buffalo, NY.
- o Mar 2014, USDA Agriculture and Research Station Seminar Series, Ithaca, NY.
- o Apr 2014, SUNY New Paltz School of Science & Engineering Colloquium seminar series, New Paltz, NY.
- Nov 2014, Hobart and William Smith, Geneva, NY.
- M Domingue, W Hellman, J Francese, **MK Fierke**, C Rutledge. Using buprestid monitoring tools for obtaining diverse collections of forest insects. Nov 2014. Entomological Soc of America. Portland, OR.
- J Gould, L Beaur, J Dian, **MK Fierke**. Update on recovery and establishment of EAB parasitoids. Oct 2014 Emerald Ash Borer National Research and Technology Development Meeting. Wooster, OH.
- M Jones, S Ryan, **MK Fierke**. Understanding the emerging emerald ash borer infestation in New York. 10/2014 Emerald Ash Borer National Research & Technology Development Meeting, Wooster, OH. Poster.
- M Parisio, J Gould, J Vandenberg, L Baeur, **MK Fierke**. Assessment of emerald ash borer parasitoid recovery methods within white ash stands in New York. Oct 2014. 2014 Emerald Ash Borer National Research & Technology Development Meeting. Wooster, OH. Poster.

- M Hassett, G McGee, **MK Fierke**. Availability of Sugar Resources to Emerald Ash Borer Parasitoids at New York State Release Sites. Oct 2014. 2014 Emerald Ash Borer National Research & Technology Development Meeting. Wooster, OH. Poster.
- G Tumminello, J Gould, M Parisio, J. Vandenberg, L. Bauer, **MK Fierke**. Parasitoid releases against emerald ash borer in New York State. Oct 2014. 2014 Emerald Ash Borer National Research & Technology Development Meeting. Wooster, OH. Poster.
- C Foelker, D Parry, C Whipps, **MK Fierke**. Colonization patterns of *Sirex noctilio* at a pine plantation in the Adirondacks. Nov 2014. Entomological Society of America. Portland, OR. Presentation.
- M Parisio, J Gould, J Vandenberg, L Baeur, **MK Fierke**. Assessment of emerald ash borer parasitoid recovery methods within white ash stands in New York. Nov 2014. Entomological Society of America. Portland, OR. Poster.
- M Jones, **MK Fierke**, S Ryan. Understanding the emerging emerald ash borer infestation in New York. Jnov 2014. Entomological Society of America. Portland, OR. Poster.
- J Vandenberg, G Tumminello, J Gould, M Parisio, L Bauer, **MK Fierke**. Parasitoid releases against emerald ash borer in New York State. Nov 2014. Entomological Soc America. Portland, OR. Poster.
- C Foelker, D Parry, C Whipps, **MK Fierke**. Clustering of mortality attributed to the European woodwasp, *Sirex noctilio*. Apr 2014. Western Forest Insect Work Conference. Sacramento, CA. Invitation to M. Fierke. Fulfilled by PhD student.
- M Jones, **MK Fierke**, S Ryan. Understanding the emerging emerald ash borer infestation in New York. • Mar 2014. New York Society of American Foresters Ann. Meeting, Syracuse, NY. Poster.
- Mar 2014. From Lab to Landscape: Integrated Infectious Disease Research. Poster. 2nd Place.
- C Foelker, D Parry, C Whipps, **MK Fierke**. Spatial aggregation of pine mortality attributed to the European woodwasp, *Sirex noctilio*. Jan 2014, New York Society of American Foresters Ann. Meeting, Syracuse NY.
- C Foelker, **MK Fierke**, D Parry, C Whipps. Developing molecular techniques to establish host-parasitoid linkages among *Sirex noctilio*, *S. nigricornis*, and native hymenopteran parasitoids. Jan 2014 USDA Interagency Research Forum on Invasive Species Annapolis, MD. Poster.
- E Kosinski, **MK Fierke**. Color preference in members of the order Lepidoptera: a case study in central New York. Apr 2014. SUNY ESF Spotlight on Student Research. Poster.
- N Donato, C Bondi, **MK Fierke**, C Beier. Influence of soil calcium and stand age on the structure and functional diversity of arthropods: a case study in two northern hardwood stands. Apr 2014. SUNY ESF Spotlight on Student Research. Poster.
- **MK Fierke**, C Rutledge. The thin green line: emerald ash borer in the Northeast. Mar 2013. Eastern Branch Meeting, Entomol. Soc. of America, Lancaster, PA.
- **MK Fierke**, J Vandenberg, M Whitmore, J Carlson. Emerald ash borer delimitation and management in New York. Mar 2013. Eastern Branch Meeting, Entomol. Soc. of America, Lancaster, PA.
- M Whitmore, **MK Fierke**, J Vandenberg. Connecting research to the "real world": helping land managers make informed decisions. Nov 2013. Entomological Society of America. Austin, TX. Invitation to M. Fierke. Unable to attend, so fulfilled by collaborator.
- C Foelker, J Vandenberg, M Whitmore, **MK Fierke**. Modeling subcortical colonization patterns of *Agrilus planipennis*. Multiple venues:
 - o Jan 2013. Joint Meeting of NY and New England Societies of American Foresters, Saratoga Springs, NY.
 - o Jan 2013. USDA Interagency Research Forum on Invasive Species, Annapolis, MD, Poster.
 - Nov 2012. Entomological Society of America, Knoxville, TN. Poster.
- C Foelker, D Parry, C Whipps, **MK Fierke**. Colonization patterns of *Sirex noctilio* at a pine plantation in the Adirondacks. Oct 2013 Sirex Symposium. Cornell University, Ithaca, NY.
- C Foelker, D Parry, C.M. Whipps, **MK Fierke**. Colonization patterns of *Sirex noctilio* at a pine plantation in the Adirondacks. Nov 2013 Entomological Society of America. Austin, TX. 1st place President's award for outstanding presentation.
- M Parisio, J Gould, J Vandenberg, L Baeur, **MK Fierke**. Assessment of emerald ash borer parasitoid recovery methods within white ash stands in New York. Nov 2013. Poster. NY Soc of American For, Syracuse NY.

- M Parisio, J Gould, J Vandenberg, L Baeur, **MK Fierke**. Assessment of emerald ash borer parasitoid recovery methods within white ash stands in New York. Nov 2013. Entomological Soc of America. Austin, TX. Poster.
- J Chille-Cale, J Vandenberg, M Griggs, C Whipps, **MK Fierke**. Repellency and Efficacy of two microbial agents for *Xylosandrus germanus*.
 - o Nov 2013. Entomological Society of America. Austin, TX.
 - o Sept 2013. Society of Invertebrate Pathology. Pittsburg, PN. Poster.
- D Bullis, C Bondi, **MK Fierke**, C Beier. Distribution of beetle families across the Northern Forest Region. Apr 2013. SUNY ESF Spotlight on Student Research, Syracuse, NY. **3rd place UG poster.**
- S Page, C Foelker, **MK Fierke**, D Parry, C Whipps. Determining host-parasitoid linkages between *Sirex noctilio*, *S. nigricornis* molecular techniques. Mar 2013. SUNY ESF Spotlight on Student Research. Poster.

- C Foelker, J Welsh, J Vandenberg, M Whitmore, J Carlson, **MK Fierke**. Delimitation and management of an *Agrilus planipennis* infestation in southwestern New York State. Poster.
 - o Jan 2012, NY Society of American Foresters, Syracuse, NY.
 - o Jan 2012, USDA Interagency Research Forum on Invasive Species, Annapolis, MD.
- J Chille, C Whipps, **MK Fierke**. Molecular techniques elucidate cryptic relationships within the *Sirex noctilio* North American parasitoid guild. Nov 2012. Entomological Society of America, Knoxville, TN. Poster.
- C Standley, D Parry, D Allen, **MK Fierke**. Degree day emergence of *Sirex noctilio* (F.) and its native siricid complex in New York.
 - o Jan 2012, NY Society of American Foresters, Syracuse, NY.
 - o Jan 2012, USDA Interagency Research Forum on Invasive Species, Annapolis, MD. Poster.
- C Bondi, C Beier, **MK Fierke** Importance of Soil Calcium in the Distribution and Diet of Eastern Redback Salamanders: Contrasting Results from Across the Northern Forest Region. 2012 Northeastern Natural History Conference, Syracuse, NY.
- C Bondi, C Beier, **MK Fierke**. Are redback salamanders sensitive to soil calcium? Contrasting evidence from across the Northern Forest region. 2012. Northeast Partners in Amphibian and Reptile Conservation, Crawford Notch, NH.
- C Rutledge, C Teerling, P Careless, **MK Fierke**. Degree day modeling for *Cerceris fumipennis*. Nov 2011. Entomological Society of America, Reno, NV. Invited.
- W Hellman, **MK Fierke**. Individual wasp size and prey selection in *Cerceris fumipennis*. Nov 2011. Entomological Society of America, Reno, NV. Invited.
- K Dean, J Vandenberg, M Griggs, L Beaur, **MK Fierke**. Assessing susceptibility of hymenopteran parasitoids of the emerald ash borer to the entomopathogenic fungus *Beauveria bassiana*. Nov 2011. Entomological Society of America, Reno, NV. Poster. 1st place Biological Control Division.
- F Stephen, L Haavik, **MK Fierke**, J Riggins, L Galligan, R Coulson, J Guldin. 2011. Innocuous native wood borer goes rogue: causes and consequences of a red oak borer outbreak in Arkansas. Nov 2011. Entomological Society of America, Reno, NV. Invited.
- **MK Fierke**, J Vandenberg, M Whitmore, J Carlson. Girdling and peeling to know: delimitation and management of emerald ash borer in southwestern New York State. Aug 2011 Emerald Ash Borer National Research and Technology Development Meeting, Wooster, OH.
- K Dean, J Vandenberg, M Griggs, L Beaur, **MK Fierke**. Assessing susceptibility of hymenopteran parasitoids of the emerald ash borer to the entomopathogenic fungus *Beauveria bassiana*. August 2011 Emerald Ash Borer National Research and Technology Development Meeting, Wooster, OH. Poster.
- C Foelker, **MK Fierke**, J Welsh, J Vandenberg, M Whitmore, J Carlson. Delimitation and management of a Tier II infestation in southwestern New York State. August 2011 Emerald Ash Borer National Research and Technology Development Meeting, Wooster, OH. Poster
- **MK Fierke**, P Eager, C Standley, D Parry, D Allen. Splitting and rearing to know: New insights into the siricid-parasitoid complex. Presented at multiple venues:
 - o May 2011, Sirex noctilio Research Updates Meeting, Riverdale, MD.

- Mar 2011, Eastern Branch Meeting of the Entomol. Soc. of America. Harrisburg, PA.
- o Jan 2011, USDA Interagency Research Forum on Invasive Species, Annapolis, MD.
- **MK Fierke**, K Gandhi, M Ayers. *Sirex noctilio*: biology, parasitism and native siricids. May 2011. North American Forest Insect Work Conference. Portland, OR.
- F Stephen, **MK Fierke**, L Haavik, J Riggins. Causes and consequences of a red oak borer outbreak in the mountains of Arkansas. May 2011. North American Forest Insect Work Conference. Portland, OR.
- W Hellman, **MK Fierke**. Evaluating a novel Buprestidae sampling methodology: prey choice and sampling efficiency of the buprestid hungting wasp, *Cerceris fumipennis*, in New York State. May 2011. North American Forest Insect Work Conference. Portland, OR. Poster.
- K Dean, J Vandenberg, M Griggs, L Beaur, **MK Fierke**. Assessing susceptibility of hymenopteran parasitoids of the emerald ash borer to the entomopathogenic fungus *Beauveria bassiana*. Presented at multiple venues:
- Mar 2011, Eastern Branch Meeting of the Entomol. Soc. of America. Harrisburg, PA.
- o Jan 2011, NY Society of American Foresters, Syracuse NY.
- K Dean, J Vandenberg, M Griggs, L Beaur, **MK Fierke**. Assessing susceptibility of hymenopteran parasitoids of emerald ash borer to entomopathogenic fungus *Beauveria bassiana*. Poster. Presented at multiple venues:
 - May 2011. North American Forest Insect Work Conference, Portland, OR. 1st place MS Division.
 - o Jan 2011. USDA Interagency Research Forum on Invasive Species, Annapolis, MD.
- E Keyser, **MK Fierke**. Longhorned beetle assemblages in New York State. 4/2011. SUNY-ESF Spotlight on Student Research. Syracuse, NY. Poster.
- **MK Fierke**, J Vandenburg, M Whitmore, J Carlson. Girdling and peeling to know: emerald ash borer research in New York. Presented at multiple venues:
 - Mar 2011. Eastern Branch Meeting of the Entomol. Soc. of America, Harrisburg, PA.
 - Jan 2011. NY Society of American Foresters Meeting, Syracuse, NY.
- C Standley, D Parry, D Allen, **MK Fierke**. Evaluating emergence phenology of the exotic *Sirex noctilio* F. and the native siricid-parasitoid complex in New York. Mar 2011. Eastern Branch Entomol. Soc. of America, Harrisburg, PA.
- C Standley, D Parry, D Allen, **MK Fierke**. Evaluating emergence phenology of the exotic *Sirex noctilio* F. and the native siricid-parasitoid complex in New York. Poster. Presented at multiple venues:
 - May 2011. North American Forest Insect Work Conference, Portland, OR.
 - o Jan 2011, USDA Interagency Research Forum on Invasive Species, Annapolis, MD.
 - o Jan 2011, NY Society of American Foresters, Syracuse, NY.
- P Rockermann, **MK Fierke**. Moth assemblages in upland and wetland forest with high and low ash densities in central New York. Mar 2011. Eastern Branch Entomological Society of America. Harrisburg, PA.
- C Snyder, S McNulty, **MK Fierke**, C Beier, R Briggs. Terrestrial Salamander Diet Along a Calcium Gradient in the Adirondack Park, NY. Poster.
 - Apr 2011, 1st Life Sciences Symposium. Syracuse University, NY.
 - o Apr 2011, Northeast Natural History Conference. New York State Museum, Albany, NY.

- C Standley, D Parry, D Allen, **MK Fierke**. Evaluating emergence phenology of the exotic *Sirex noctilio* F. and the native siricid-parasitoid complex in New York. Dec 2010 Entomological Society of America. San Diego, CA. Poster.
- W Hellman, **MK Fierke**. A promising alternative survey method for emerald ash borer using the wasp *Cerceris fumipennis*. Jan 2010. NY Society of American Foresters. Syracuse, NY.
- W Hellman, **MK Fierke**. 2010. Species richness of Buprestidae as sampled by *Cerceris fumipennis*. Apr 2010. Spotlight on Student Research. SUNY ESF. Syracuse NY. Poster.
- W Hellman, MK Fierke. Species richness of Buprestidae as sampled by *Cerceris fumipennis*. Apr 2010. Spotlight on Student Research. SUNY ESF, Syracuse NY. Poster.
- E Gustafson, **MK Fierke**. Investigations of Fungal Entomopathogens of *Sirex noctilio* F. (Hymenoptera: Siricidae) in Central New York. Apr 2010. SUNY ESF Spotlight on Student Research, Syracuse NY. Poster.

- M Bohne, D Souto, C Teerling, B Payton, C Rutledge, C Burnham, J Weimer, J Weaver, T Hanson, **MK Fierke**, W Hellman, E Hoebeke. Jan 2010. Biosurveillance of Buprestidae in New York and New England. USDA Invasive Species Conference. Annapolis ML. Poster.
- F Stephen, L Haavik, **MK Fierke**, J Riggins, L Galligan, J Guldin. The recent oak decline and red oak borer outbreak in Arkansas. Jan 2010. Southern Hardwood Forest Research Group, Stoneville, MS. Invited.
- **MK Fierke**, P Eager, P Rockermann, W Hellman. Finding a niche in northeastern forest entomology emerald ash borer and *Sirex noctilio*. Dec 2009. Entomological Society of America. Indianapolis, IN.
- P Eager, D Allen, **MK Fierke**. Investigating the *Sirex noctilio* (Hymenoptera: Siricidae) parasitoid complex in New York State. Dec 2009. Entomological Society of America, Indianapolis IN. **2nd place President's Prize**.
- P Rockermann, D Parry, **MK Fierke**. Assessment of riparian tree and wetland moth diversity in New York. Dec 2009. Entomological Society of America, Indianapolis IN.
- W Hellman, **MK Fierke**. Species richness of Buprestidae as sampled by *Cerceris fumipennis*. Dec 2009. Entomological Society of America. Indianapolis, IN. Poster.
- F. Stephen, L Haavik, **MK Fierke**, J Riggins, L Galligan, J Guldin. History and dynamics of red oak borer in Arkansas. Oct 2009. IUFRO conference "Forest insects and environmental change". Jackson Hole, WY.
- G Williams, **MK Fierke**. Dendroentomological evidence of *Sirex noctilio* oviposition. Apr 2009. ESF Spotlight on Student Research. Syracuse, NY. Poster.
- N Werner, D Parry, **MK Fierke**, DC. Allen. Apr 2009. Assessing native parasitoid influences on an introduced wood-boring wasp, *Sirex noctilio*. ESF Spotlight on Student Research. Syracuse, NY. Poster.
- P Eager, D Allen, **MK Fierke**. Optimal sampling of the *Sirex noctilio* (Hymenoptera: Siricidae)-parasitoid complex in Central New York State. Mar 2009. Eastern Branch Entomol Soc Am. Harrisburg, PN. Poster.
- P Rockermann, C Landis, **MK Fierke**. Tree composition of New York riparian forests in advance of emerald ash borer. Poster. Presented at:
 - o Jan 09. USDA Interagency Research Forum on Invasive Species. Annapolis, ML.
 - Mar 09. Eastern Branch Entomological Society of America. Harrisburg, PN.
- P Eager, D Allen, MK Fierke. Investigating the *Sirex noctilio* (Hymenoptera: Siricidae) parasitoid complex in central New York. Jan 2009. USDA Interagency Res Forum on Invasive Species. Annapolis, ML. Poster. 2007–2008
- MK Fierke, C Landis, M O'Brien, J Riddle, N Werner, R Germain. Economic and ecological impacts of emerald ash borer and *Sirex noctilio*. Aug 2008. Ecological Society of America. Milwaukee WI.
- **MK Fierke**. Emerald ash borer: Status, biology, impacts, and current research. Oct 2008. Invasive Non-Native Forest Pest Conference. Ithaca, NY.
- F Stephen, **MK Fierke**, L Haavik, J Riggins. Red oak borer as an agent of change in Arkansas forests: an historical perspective. Dec 2008. International Congress of Entomology. Durban South Africa.
- J Tullis, J Wilson, J Defibaugh Chávez, F Stephen, **MK Fierke**, J Riggins. Remote sensing-assisted decision support for red oak borer hazard response in upland oak-hickory forests. 2007. American Society for Photogrammetry and Remote Sensing Convention. Tampa, Florida

2005-2006

- **MK Fierke**, L Haavik, F Stephen. Tree variables associated with increased red oak borer populations. Dec 2006. Entomological Society of America, Indianapolis, IN. Poster.
- L Galligan, **MK Fierke**, D Crook, F Stephen. Life table development for red oak borer (*Enaphalodes rufulus* (Haldeman) Coleoptera: Cerambycidae) in the Ozark Mountains of Arkansas. Dec 2006. Entomological Society of America, Indianapolis, IN. Poster.
- **MK Fierke**, F Stephen, J Tullis. Red oak borer in the Ozark forests: tracking the rise and fall of a native tree killing Cerambycid. In Formal Symposium: Semiochemicals mediating behavior of Cerambycid beetles. Dec 2006, Entomological Society of America, Indianapolis, IN.
- MK Fierke. Oak defenses: What we've learned. 2006. East Texas Forest Entomol Conf, Nacagdoches, TX.
- MK Fierke, J Murphy, F Stephen. Oak defenses against red oak borer. 2006. North American Forest Insect Work Conference, Asheville, NC. Poster.

- F Stephen, **MK Fierke**. Monitoring and predicting populations of red oak borer in the Ozark Mountains. 2006, Forest Health Monitoring Workgroup Meeting, Charleston, SC. Poster (runner-up, Best Graphics).
- **MK Fierke**, F Stephen. Red oak borer and forest health in the Arkansas Ozarks. 2006. AR Chapter of The Wildlife Society, Harrison, AR.
- S Billings, L Haavik, F Stephen, MK Fierke, V. Salisbury, S. Leavitt. Dendrochronological parameters of northern red oak (*Quercus rubra*, Fagaceae) subjected to a major forest disturbance (red oak borer, *Enapholodes rufulus*). Oct 2006. International Union of Forest Researchers Organization, Canopy processes traveling meeting in northeastern United States.
- **MK Fierke**, F Stephen. Red oak borer: Distribution, abundance, tree mortality and tree defenses. 2006 University of Arkansas, Dept. of Entomology Seminar Series.
- **MK Fierke**, F Stephen. Oak defenses against a wood-boring insect. Dec 2005. Entomological Society of America, Fort Lauderdale, FL.
- **MK Fierke**, F Stephen. Oak chemical defenses against a wood-boring insect. 2005. 49th Southern Forest Insect Work Conference, Austin, TX.
- F Stephen, R Coulson, J Guldin, **MK Fierke**. Declining Forest Health and Epidemic Insects: Red Oak Borer in the Ozark Mountains of USA. July 2005. IUFRO conference entitled Forest Insect Epidemics: Population Dynamics, Dispersal, and Ecosystem Impacts, Prince George, BC.
- **MK Fierke**, F Stephen. Estimating red oak borer populations associated with an oak decline event in the Ozark Mountains. 2005. East Texas Forest Entomology Conference, Nacagdoches, TX.
- **MK Fierke**, D Kinney, F Stephen. A rapid estimation procedure for red oak borer. 2005. Southeastern Branch Entomological Society of America, Tunica, MS. Poster.
- F Stephen, J Guldin, **MK Fierke**. Declining Forest Health and Epidemic Insects: Red Oak Borer in the Ozark Mountains of USA. 2005. International Union of Forestry Research Organizations, Forest Insect Epidemics: Population Dynamics, Dispersal, and Ecosystem Impacts, Prince George, Alberta, Canada.
- **MK Fierke**, F Stephen. Impacts of an unprecedented red oak borer outbreak on Arkansas Forests. Prepared and presented. 2005. Arkansas Chapter of American Fisheries Society, The Wildlife Society and Forestry Society, Russellville, AR.
- **MK Fierke**, F Stephen. Red oak borer and its impacts on Arkansas woodlands. 2005. 24th Horticulture Industries Show, Fort Smith AR.
- MK Fierke, F Stephen. Red oak borer research. 2005. Forestry and Wildlife Field Day, Savoy, AR.
- **MK Fierke**, F Stephen. An unprecedented outbreak of red oak borer. 2005. University of Arkansas Pest Management Class, Fayetteville, AR.
- **MK Fierke**, F Stephen. Red oak borer: problem assessment and research directions. 2005. University of Arkansas, Dale Bumpers College of Agricultural, Food and Life Sciences. Fayetteville, AR.
- **MK Fierke**, F Stephen. Sampling an unprecedented red oak borer outbreak in the Ozark Mountains. 2005. University of Arkansas Biology Ecomunch Seminar Series, Fayetteville, AR.

- **MK Fierke**, F Stephen. An unprecedented outbreak of red oak borer. 2004. Arkansas Crop Protection Assoc., Fayetteville, AR.
- **MK Fierke**, F Stephen. An unprecedented red oak borer outbreak in the Ozark Mountains. 2004. The Wildlife Society Arkansas Chapter Meeting, Fayetteville, AR.
- **MK Fierke**, F Stephen. Population levels and sampling methods for red oak borer, *Enaphalodes rufulus*. Dec 2004. Entomological Society of America, Salt Lake City, UT. Poster.
- F Stephen, **MK Fierke**, D. J. Crook, W. F. Limp. Red oak borer in Ozark forests: ecology and assessment of a native tree-killing cerambycid. Nov. 2004. In: Semiochemistry and behavior of Cerambycids. Entomol. Soc. America Natl. Meeting, Salt Lake City, UT.
- **MK Fierke**, F Stephen. A remarkable and unprecedented red oak borer outbreak linked to widespread oak mortality in the Ozark Mountains. 2004. Ecological Society of America, Portland, OR.

MK Fierke, F Stephen. Flight and landing behavior of red oak borer. 2003. Southern Forest Insect Work Conference, New Orleans, LA.

- **M.Fierke**, D Kinney, V Salisbury, D Crook. F Stephen. Stand variables and tree mortality associated with red oak borer. Dec 2003. Entomological Society of America, Cincinnati, OH. Poster.
- B Kelley, **MK Fierke**, D Kinney, F Stephen. Stand Aspect as an estimator of tree susceptibility to red oak borer (*Enaphalodes rufulus* (Haldeman)) induced mortality. Dec 2003. Entomological Society of America, Cincinnati, Oh. Poster.
- **MK Fierke**, F Stephen. Red oak borer at the tree and stand level. 2003. East Texas Forest Entomology Conference, Nacagdoches, TX.

2001–2002

- **MK Fierke**, J Kauffman. Composition, structure, and biomass along 145 km of the Willamette River, Oregon. 2002. Oregon Chapter of American Fisheries Society, Sunriver, OR.
- **MK Fierke**, J Kauffman. Composition, structure and biomass of cottonwood-dominated gallery forests. 2001. Third Environmental Joint Campus Conference: Linking People, Policy and Science, Corvallis, OR.
- **MK Fierke**, J Kauffman. Composition, structure and biomass of cottonwood-dominated gallery forests along Oregon Rivers in the Columbia Basin. 2001. American Water Resources Assoc Meeting, Portland Oregon.
- **MK Fierke**, J Kauffman. Composition, structure and biomass of cottonwood-dominated gallery forests along Oregon Rivers in the Columbia Basin. 2001. Oregon Chapter of American Fisheries Soc and The Wildlife Soc, Portland, OR. Poster.

MORE COLLEGE/DEPARTMENTAL & COMMUNITY SERVICE

Represented Forest Health and Environmental Education and Interpretation majors at ESF open houses, accepted student receptions, and student orientation seminars.

EFB Curriculum Committee (2007–2010)

Co-facilitated Adaptive Peaks seminar series for four semesters and the Core Course for new EFB graduate students (2011–2018)

Search committees

ESF President (2020)

Assistant Professor of Plant Physiology (2017)

Assistant Professor of Microbiology (2011)

Dean of Student Services (2012)

General Biology Instructor (2008)

Scholarship committees:

Roskin undergraduate award to outstanding female senior

Chun Wang to outstanding female senior undergraduate award

Outstanding PhD student award

Lanier forest entomology/chemical ecology graduate award

Stegeman invertebrate ecology graduate award

Simeone Endowed Entomology Fellowship

Engaging the Broader Community

Routinely provide press interviews, research briefings, and expertise on entomology and natural history Routinely go to local elementary/middle/high schools for presentations on entomology/science careers Worked closely with administrators to develop and ESF college-level Biology course

Facilitated entomology session for middle school students

Facilitated entomology session for teachers

Organize and lead activities annually for Take Your Daughters/Sons to Work Day for the ESF Women's Caucus on the Importance of Insects. 20–40 participants in 2 one hour sessions

Additional Undergraduate Mentoring

Advisor to ~ 23–25 undergraduate students in Environmental Biology, Conservation Biology, Natural History and Interpretation, Forest Health, and Environmental Science, with ~4 students/year undertaking independent research projects and/or apprenticeships, 4 students/year doing internships.

Faculty advisor to Entomology Club (2022-present)

Faculty advisor to Cycling Connections Club (2012–16)

Faculty advisor on development of ESF's Bike Library

Faculty advisor to Women's Basketball team (2009–11)

Faculty advisor to The Conservation Biology Society ESF Student Chapter (2009–10)

Student Recruiting, Retention, and Recognition Activities

Represent the Dept and Forest Health and/or Environmental Interpretation majors at ESF open houses (2010, 2011, 2013, 2015, 2016, 2019, 2020, 2021, 2022)

Conduct personal interviews with prospective and accepted students (2007-present)

Organized dinner/discussion with top female graduating seniors (2009, 2010)

Organized Outstanding Graduate Teaching Award (2012, 2014)

Organized Outstanding Undergraduate Teaching Award (2011)

Guest lectures

Preorientation for CStep students, Green Lakes, 2010–2019 Graduate Student Orientation Seminar in EFB (2010, 2011, 2012, 2019, 2020, 2021) Undergraduate orientation seminar in Environmental Science (2009–2017) Ranger School, New York Invaders (2012, 2013, 2015, 2018) Forest Ecology (2013, 2014) Evolution (2011, 2012) Plant Herbivore Interactions (2010) Forest Entomology (2008, 2010)

Public Presentations (not exhaustive)

- 2016 South Eastern Neighborhood Association: Ticks and tick-borne disease in Onondaga County. Syracuse NY. ~70 attendees (including Syracuse Mayor).
- 2014 South Eastern Neighborhood Association: Bicycle Safety and Bicycle Infrastructure. Also, Emerald Ash Borer Research. Syracuse NY. ~80 attendees (including Syracuse Mayor). Importance of Insects. Earth Day presentation at Museum of Sci and Tech, Syracuse, NY. Apr 2014. 16.
- 2012 Chittenango Garden Club: Emerald ash borer information & research. ESF Going Green segment: New fines for spreading invasive species <u>http://www.esf.edu/goinggreen/showcase.asp?destinationID=aBdls0oTAEOtoFPIyCaoig&contentID=sH</u> <u>0WRGieQEaQX89RxCvBGA</u>
- 2012 Pearson Inc. Mastering Biology meeting, Albany, NY. Presented on my experience with using Mastering Biology, an online homework program developed by Pearson, Inc., the publisher of the Campbell Biology textbook we use in EFB101. The presentation was to university lecturers considering using Mastering in their classrooms.
- 2011 ESF Going Green segment: Emerald ash borer insecticide <u>http://www.esf.edu/goinggreen/showcase.asp?destinationID=aBdls0oTAEOtoFPIyCaoig&contentID=zon</u> <u>8YZI1qESiRZgh7SIZtg</u>

New York emerald ash borer research & management. Presented at several venues: NY Ag & Markets Outreach and Survey Workshop. August 2010, Buffalo, NY. 25 attendees. NYDEC ReLeaf Conference, July 2010, Geneva, NY. 100 attendees.

2010 Coordinated invasives workshops for interested local, regional and state agencies: Invasive Plants - taught by Catherine Landis and Molly Farrell Invasive Aquatics - taught by Kimberly Schultz and John Farrell Invasive Forest Insects - taught by Melissa Fierke and Dylan Parry

- Plant/Insect Interactions: plant chemical defenses and communication. American Chemical Society meeting, Syracuse NY. 7/09.
- A Promising Alternative Survey Method for Emerald Ash Borer Using the Wasp *Cerceris fumipennis*. 2010. North Eastern New York State Nursery Landscape Association Education Day and Trade Show, Cobleskill, NY. Presented by W.E. Hellman, MK Fierke.
- 2009 Going Green segment: Emerald ash borer:
 - http://www.esf.edu/goinggreen/showcase.asp?destinationID=aBdls0oTAEOtoFPIyCaoig&contentID=Kn QOp-MzHEiZ2vgNN_KXfw

Digger wasps used to monitor for emerald ash borer:

http://www.esf.edu/goinggreen/showcase.asp?destinationID=aBdls0oTAEOtoFPIyCaoig&contentID=qNb h6QuGJU2xuCRHujfs-Q

- Biosurveillance: Using *Cerceris fumipennis* to detect emerald ash borer. 2009. SUNY-ESF Workshop, Syracuse, NY. Presented by W.E. Hellman, MK Fierke.
- Biosurveillance, a community approach. 2009. Cornell Cooperative Extension In-Service Education Opportunity - Invasive Species, Ithaca, NY. Presented by W.E. Hellman, MK Fierke.

Press Coverage (not exhaustive)

- 2018. Channel 3 http://www.localsyr.com/news/local-news/esf-professor-explains-how-tick-tubes-help-protectyour-yard-from-lyme-disease/1160161283
- 2018. Syracuse Post Standard

http://www.syracuse.com/news/index.ssf/2018/05/syracuses_east_side_neighbors_join_forces_to_fight_ticks. html

2012. Channel 3: Dangerous local plant poses health risks.

http://www.cnycentral.com/news/story.aspx?id=767326#.UF-Gka4sFrM

- 2011. The New Times. Green monster. <u>http://www.syracusenewtimes.com/newyork/article-5105-green-monster.html</u>
- 2011. Northern Woodlands. Melissa Fierke. http://northernwoodlands.org/articles/article/melissa-fierke
- 2009. Beetle fatal to ash trees found in New York state. <u>http://www.syracuse.com/news/index.ssf/2009/06/beetle_fatal_to_ash_trees_foun.html</u> Syracuse Post Standard. Emerald ash borer killing ash trees. <u>http://videos.syracuse.com/post-</u>
 - standard/2009/11/emerald_ash_borer_killing_ash.html Syracuse Post Standard. How a tiny beetle can take down a mighty ash.
 - http://www.syracuse.com/news/index.ssf/2009/11/how_a_tiny_beetle_can_take_dow.html Channel 3: Wild parsnip and giant hogweed:

http://www.cnycentral.com/weather/story.aspx?id=767326#.UaydWOtk-mE

ESF Going Green segment: Update on New York State Law on movement of invasive species <u>http://buffalo.ynn.com/content/features/646284/ash-borer-beetle-killing-trees-throughout-the-state/</u>

- Article on cicadas in Saratogian: http://www.saratogian.com/articles/2013/05/07/news/doc5188615c5f797157565050.txt
- Channel 3 & 5 Interveiw on new quarantine regulations on emerald ash borer http://www.cnycentral.com/m/news/story?id=894329#.UZGC2GS9Kc0
- Pearson Mastering Biology meeting. 3/2013, Syracuse, NY. Presented on my experience using Mastering Biology, an online homework program developed by Pearson, Inc., the publisher of the Campbell Biology textbook we use in EFB101. The presentation was to university lecturers considering using Mastering in their classrooms. (~30)
- Entomology presentations: Chittenango Garden Club 6/12/12 (22 gardeners) Ed Smith Kindergarten classes 2013, 2014, 2015, 2016 (80 students)

EARLY AWARDS & ACHIEVEMENTS

2007 Outstanding Graduate Student in Southern Forest Entomology Roger F. Anderson Award

2006 Gamma Sigma Delta Student PhD Oral Presentation Competition,1st place

2006 Gamma Sigma Delta Student PhD Poster Presentation Competition, 2nd place

2005 Isely Outstanding Entomology PhD student award

2005 Gamma Sigma Delta Student Oral Presentation Competition, 3rd place

2004 Arkansas Crop Protection, PhD Oral Presentation Competition, 2nd place

2004 Overall Sport Woman Racer, Arkansas Mountain Bike series

2002 Lincoln Fellowship, Department of Entomology, University of Arkansas

2002 Graduate Fellowship, University of Arkansas

2000, 2001 NSF GK-12 Teaching Fellowship, Oregon State University

1999 Women in Engineering Fellowship, Oregon State University

1999 Matayo Outstanding Graduating Chemistry Student Award, Arkansas Tech University

1998 Physical and Life Science Academic Achievement Award, Arkansas Tech University

1997 Overall Sport Woman Racer, Arkansas Mountain Bike series

1997 Biology Fellowship, Arkansas Tech University

1997 Chemistry Performance Scholarship, Arkansas Tech University

WORK HISTORY

May 2002–06

PhD research on *Enaphalodes rufulus* at the University of Arkansas.

Fall 2004, Lab Instructor and lecture Teaching Assistant, Insect Ecology, University of Arkansas.

Spring 2004, Teaching Assistant, Insects and People, University of Arkansas.

Jun 2000–02

Master's research. Design, implement, analyze, write and publish thesis.

NSF GK-12 Fellowship: Taught at a K-5 elementary school and performed outreach activities. As part of outreach, taught at outdoor camps, Salmon Watch, various other water/stream related events and became a scientist on the SEPS Oracle. Also, organized and supervised science fairs and taught and supervised an advanced high school student as a part of Saturday Academy. Responsibilities with teaching at the elementary school were extensive. Required to be flexible, spontaneous, and adept at coming up with/modifying activities for different grade levels. Arranged for "visiting scientists" to come to the school and give presentations on their research. Facilitated a science club once a week and organized field trips during the school year. As the school science expert, taught chemistry, astronomy, physics, biology, etc. Always attentive to attitude when presenting lessons - realizing that enthusiasm is crucial to generating and maintaining student's interest in science.

Aug 1999–May 2000

Research Assistant, Bioresource Engineering Dept., Oregon State University, Corvallis, OR.

Summer 1999

Water Quality Technician, Madison County Conservation District, Huntsville, AR. Worked with farmers on Nutrient Management Plans and went over concerns for poultry litter management. Cored, dried, and packaged soil samples. Determined application rates for poultry litter and fertilizer. Delivered plans and explained recommendations. Worked on stream bank revetment, initial stream surveys, mapping, planning, directing, placement, and establishment of revetments, and talked to to landowners about erosion prevention.

Spring 1999

Adjunct Instructor, Arkansas Tech University, Russellville, AR. Taught two Intro Bio Labs (non-majors), 2 Principles of Biology Labs (majors), and 3 Zoology Labs. Organized and presented lectures. Supervised 5 teaching assistants and counseled students with scheduling conflicts and grade-related problems.

Arkansas Tech University, Russellville, AR - Teaching Assistant for Zoology and Botany labs, Chemistry Lab Assistant and Chemistry tutor for Chem. I, Chem. II, and Organic Chemistry.

1996–97

Assistant County Supervisor (part-time), USDA-Rural Development Administration, Russellvillle, AR. 1987–97

Assistant County Supervisor, USDA-Farmers Home Administration, Harrison, AR.

Initiated and explained loan and grant applications, for rural housing and farm loans. Prepared paperwork, processed loans and grants. Serviced delinquent loans and followed through on all servicing actions. Systems manager for computer systems in Boone/Newton counties. Detailed to other counties multiple times to trouble-shoot problems, including assuming the duties and responsibilities of acting as County Supervisor on several occasions. Received numerous superior ratings and an outstanding rating.